



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

(FORM NO. QMF 9454 VER:1.00)							
1.	SHELL NO	<b>8148</b>	BOGIE NO	<b>196439</b>	/ <b>196440</b>	DISPATCH DATE	<b>12-APR-19</b>
2.	RAILWAY	<b>NR</b>	TYPE OF COACH	<b>LWACCN</b>	COACH NO	<b>182559</b>	
3.	BOOKED TO	<b>SSE/C&amp;W/DLI</b>					
4.	Tare Weight of Coach	<b>45.6 T</b>					
5.	Carrying Capacity	Seating	<b>72</b>	Sleeping	<b>72</b>	Luggage	<b>NIL</b>
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	<b>1105</b>	<b>1092</b>		
	v)	CBC (Make)		<b>SANROK</b>	<b>SANROK</b>		
	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/cm2	06 - 10 Sec			
			Max Pressure in BC	3.80±0.15 Kg/cm2			
			All Brake are applied	OK			
	7.2	Insensitivity	Exhaust BP @ 0.3 Kg/cm2/mi	No brake application			
	7.3	Sensitivity	Exhaust BP @ 0.1 Kg/cm2/Sec, After 02 Sec	Brake must apply			
8.	Painting Details:		Type of Paint	Make	Average Gloss Value		
	8.1	Paint	<b>PU PAINT</b>	<b>DEB PAINT</b>	<b>88 / 85</b>		
	8.2	Application of PCN-123	<b>SATISFACTORY</b>				
	8.3	Insulation	<b>SATISFACTORY</b>				
9.	Traceability of Furnishing Items:						
	1	<b>EP BRAK / BRAKE EQUIPMENT</b>	<b>KBI</b>				
	2	<b>SEAT &amp; BEARTH</b>	<b>OVPL</b>				
	3	<b>PVC</b>	<b>RESPONSIVE</b>				
	4	<b>FLOOR BOARD</b>	<b>TWPL</b>				
	5	<b>UIC VESTIBULES</b>	<b>KRP</b>				
	6	<b>BODY SIDE DOOR</b>	<b>JVR</b>				
	7	<b>VESTIBULE SLIDING DOOR</b>	<b>HANSPAL</b>				
	8	<b>BIO-TOILET</b>	<b>RASANDIK</b>				
	9	<b>WATER TANKS</b>	<b>SHIVALIK, AMIT, RAIL FAB</b>				
	10	<b>LAVATORY DOORS</b>	<b>HIND</b>				
10.	10.1	<b>Modification/ Trial (If any): NIL</b>					
	10.2	<b>Deviations (If any): NIL</b>					



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

**QMF 9829, VER:1.00**

<b>11.</b>	<b>Bogie Details:</b>	Shell No.	Railway	Type	Coach No.	Dispatch Date
		8148	NR	LWACCN	182559	12-APR-19

  

<b>11.1 Wheel &amp; Axle Details:</b>									
i.	Bogie No.	196439				196440			
ii.	Frame No.	SCI-FM-99				SCI-FM-101			
iii.	Bolster No.	SF-CA-192				SF-CA-187			
iv.	Axle No.	RWF - H-8940		RWF - J-2054		RWF - H-7240		RWF - J-1936	
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.	916.10	916.10	916.30	916.30	916.20	916.20	916.30	916.30
vii.	Wheel Disc No.	19010-8PN8-TZ	37674-8RP9-TZ	19384-8PN1-TZ	41194-8RR0-TZ	41193-8PQ5-TZ	37675-8RP4-TZ	22507-8PN6-TZ	22508-8PN8-TZ
viii.	RB Nos.	17337	16077	16094	17453	16144	17539	14528	11842
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-18-12-1557	TAYAL-18-12-1548	TAYAL-18-12-1551	TAYAL-18-12-1547

  

<b>Items traceability:</b>				
Sno.	Item			Make
i.	Primary Outer Spring	RSK-17-08	RSK-17-08	RSK
ii.	Primary inner Spring	FSK-18-07	FSK-18-07	FSK
iii.	Primary Damper	11387, 11482, 10768, 10910	10771, 11388, 11191, 10898	GABRIEL
iv.	Secondary Damper	10810, 10753	10672, 10726	KBI
v.	Lateral Damper	170	182	KBI
vi.	Brake cylinder & Caliper	A4867-691,A4369-691, A4862-691,A4363-691	A4864-691,A4374-691, A4872-691,A4366-691	KBI
vii.	Brake Disc			KBI
viii.	Contral arm top			KUMAR-HAPL
ix.	Control arm bottom			KUMAR-HAPL
x.	Top rubber Pad			GMT
xi.	Vertical Bump Stop			GMT
xii.	Ball Joint Control arm			GMT
xiii.	Lateral Bump stop			GMT
xiv.	Traction center make			SARITA
xv.	Traction lever make			JI
xvi.	Ball joint traction lever			SGA
xvii.	Traction center elastic			SGA
xviii.	Secondary rubber pad			NA
xix.	Rubber spring			NA
xx.	Anti roll bar make			SARITA
xxi.	Ball joint roll link			SARITA
xxii.	Fork make			SARITA

  

<b>11.4</b>	i. Modification/Trail(if any):	NIL
	ii. Deviations (if any):	Deviations (If any): NIL

**LWACCN - 8148**



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

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

**TYPE OF COACH :** LWACCN      **Shell No :** 8148      **COACH\_NO :** 182559

**RAILWAY :** NR      **COUPLING TYPE :** CBC      **DATE OF FITMENT:** 11-APR-19

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      **PP-SIDE**

0	33501427-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR AC NAC COACHES, as per Drawing: RDSO/2011/CG-04 REV.01 with am	RDSO/2011/CG-04 REV.01 with amendment -1 (WITHOUT BRAKE DISC AND EMERGENCY BRAKE CABLE BOX NPZ 1-S OR PASSENGER EMERGENCY PILOT VALVE) AND Dy.CME/D2's LETTER NO. MD46131 DT. 11/06/2015	KNORR	0117293621
1	33635080-1, PUMP	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	291169/ 291170
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2668-E-18
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195251
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195249



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ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

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LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      **PP-SIDE**

1	33640932-1, GPS BASED P I SYSTEM MBU	RDSO/PE/SPEC/AC/0087,2008,REV-1 &RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
1	33640993-1, PA SYSTEM WITH VOLUME CONTROLLER	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	3606487
2	33640993-2, SPEAKERS	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	NIL

**Group Name**      **NON-PP SIDE**

2	33635080-2, PUMP CONTROLLER	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KAPSON (KIND)	18070026
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2692-E-18



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      **NON-PP SIDE**

2	33635237-2, MICRO PROCESSOR CONTROLLER	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	AE-1801385
1	33635330-1, HOT CASE	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	07/08/2017
2	33635330-2, BOTTLE COOLER CUM DEEP FREEZER	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	07/08/2017
2	33640932-2, LCD COMPARTMENT	RDSO/PE/SPEC/AC/0087,2008,REV-1 &RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL

**Group Name**      **UNDER FRAME**

0	33635183-0, 60 KVA TRANSFORMER as per Drg.No. RDSO/PE/SPEC/AC/0080-2007,(REV-1)WITH RDSO LETTER NO EL/7/1/108/TR	RDSO/PE/SPEC/AC/0080-2007,(REV-1),WITH RDSO LETTER NO EL/7/1/108/TRANSFORMER DATED 31/03/15,RCF ANN1.	ELECTRO WAVES ELECTRONICS PVT,. LTD.	W60KC-19002
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**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name UNDER FRAME</b>				
0	33635493-0, 5KVA, 415/190V, 3PHASE DRY TYPE DISTRIBUTION TRANSFORMER, as per Drawing: EDTS366, REV-Nil, COR-2., Pack	EDTS366, REV-Nil, COR-2.	VIMAL TRANSFORMER CORPORATION	VTC-3089-LHB-755
0	33640178-0, BATTERY FUSE BOX - VE, as per Drawing: LW71002, ALT-J., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71002, ALT-J.	ELECOS ENGINEERS PVT. LTD.	2016-11-008
0	33640786-0, BATTERY FUSE BOX +VE, as per Drawing: LW71001, ALT-I., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71001, ALT-I.	INTEG ELECTRONICS	2017-11-179
0	33641729-0, 70AH, 110V, VRLA MONOBLOCK LEAD ACID MAINTENANCE FREE SET WITH 9MDLS OF 12V EACH PRECHARGED BATTERY(9	RDSO/PE/SPEC/AC/0009-2014, REV-2, PRECHARGED.	AMARA RAJA BATTERIES LTD.	09/2018
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 'CR' AND SKED-383 IN DRG.NO. 3 10113.0.76.700.117	GOPAL ENGINEERING WORKS	NIL
1	35982913-1, CAPACITOR BANK FOR LHB EOG POWER CAR COACHES	EDML130, REV-1, COR-5, TYPE-II	INTERNATIONAL SWITCHGEAR PVT LTD.	CB-RCF-1811-0212
<b>Group Name COMPARTMENT</b>				
1	33641936-1, SWITCH BOARD CABINET	RDSO/PE/SPEC/AC/0184-2015, REV-0.	TROLEX INDIA PVT LTD.	WEBCD-185251/195249
<b>Group Name UNDER FRAME PP SIDE</b>				
1	33635067-1, BOGIE 1	EDTS101, REV-C, AM-1, COR-6, RCF ANNEXURE-1	MAA LAXMI INDUSTRY	196439
0			LIGHT ENGG CORP.	NIL
0			MAA LAXMI INDUSTRY	NIL
<b>Group Name UNDER FRAME NPP SIDE</b>				
2	33635067-2, BOGIE 2	EDTS101, REV-C, AM-1, COR-6, RCF ANNEXURE-1	MAA LAXMI INDUSTRY	196440
0			HIND RECTIFIERS LIMITED	NIL
0			MAA LAXMI INDUSTRY	NIL



भारतीय रेलवे  
RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS		
ROLLING STOCK CERTIFICATE OF		
LHB 3 AC END ON GENERATION AIR BRAK		
SSE/EL/QC	AME/WM QC/DY CQM I	



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

(FORM NO. QMF 9454 VER:1.00)									
1.	SHELL NO	8150	BOGIE NO	196447	/ 196448	DISPATCH DATE	13-APR-19		
2.	RAILWAY	NR	TYPE OF COACH	LWACCN		COACH NO	192743		
3.	BOOKED TO	SSE/C&W/DLI							
4.	Tare Weight of Coach	45.6 T							
5.	Carrying Capacity	Seating	72	Sleeping	72	Luggage	NIL		
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	1103		
	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/cm2		06 - 10 Sec			
				Max Pressure in BC		3.80±0.15 Kg/cm2			
				All Brake are applied		OK			
	7.2	Insensitivity		Exhaust BP @ 0.3 Kg/cm2/mi		No brake application			
	7.3	Sensitivity		Exhaust BP @ 0.1 Kg/cm2/Sec, After 02 Sec		Brake must apply			
8.	Painting Details:		Type of Paint			Make	Average Gloss Value		
	8.1	Paint		PU PAINT		DEB PAINT	89 / 88		
	8.2	Application of PCN-123		SATISFACTORY					
	8.3	Insulation		SATISFACTORY					
9.	Traceability of Furnishing Items:								
	1	EP BRAK / BRAKE EQUIPMENT			KBI				
	2	SEAT & BEARTH			OVPL				
	3	PVC			RESPONSIVE				
	4	FLOOR BOARD			TWPL				
	5	UIC VESTIBULES			POLYMER				
	6	BODY SIDE DOOR			JVR				
	7	VESTIBULE SLIDING DOOR			JBM				
	8	BIO-TOILET			RASANDIK, JSL				
	9	WATER TANKS			SHIVALIK, AMIT, RAIL FAB				
	10	LAVATORY DOORS			HINDUSTAN, CMT				
10.	10.1	Modification/ Trial (If any): NIL							
	10.2	Deviations (If any): NIL							





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

**QMF 9829, VER:1.00**

<b>11.</b>	<b>Bogie Details:</b>	Shell No.	Railway	Type	Coach No.	Dispatch Date
		8150	NR	LWACCN	192743	13-APR-19

  

<b>11.1 Wheel &amp; Axle Details:</b>									
i.	Bogie No.	196447				196448			
ii.	Frame No.	ECBT-227				ECBT-215			
iii.	Bolster No.	VT-CA-498				SF-CA-160			
iv.	Axle No.	RWF - L-6100		RWF - L-5990		RWF - J-1902		RWF - L-8611	
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.	916.90	916.90	917.10	917.10	916.20	916.20	916.90	916.90
vii.	Wheel Disc No.	45481- 8RL7-TZ	19006- 8MY0-TZ	39511- 8RP6-TZ	37854- 8RL7-TZ	3945198R S5-TZ	19001- 8MY0-TZ	19005- 8MY0-TZ	36394- 8RS0-TZ
viii.	RB Nos.	16237	16218	17319	16316	15889	13361	18629	14543
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-18-12-1523	TAYAL-18-12-1545	TAYAL-18-12-1558	TAYAL-18-12-1518

  

<b>Items traceability:</b>					
<b>11.3</b>	Sno.	Item	RSK-18-08	FSK-18-07	Make
	i.	Primary Outer Spring	RSK-18-08	FSK-18-07	RSK
	ii.	Primary inner Spring	FSK-18-07	FSK-18-07	FSK
	iii.	Primary Damper	16874, 17126, 17124, 16717	214801, 214327, 214568, 214429	KBI      IAI
	iv.	Secondary Damper	8677, 8680	8684, 8683	KBI
	v.	Lateral Damper	0158	0157	KBI
	vi.	Brake cylinder & Caliper	A5711-691,A5258-691, A5708-691,A5284-691	A5705-691,A5239-691, A5709-691,A5282-691	KBI
	vii.	Brake Disc			KBI
	viii.	Contral arm top			KUMAR
	ix.	Control arm bottom			KUMAR
	x.	Top rubber Pad			GMT
	xi.	Vertical Bump Stop			GMT
	xii.	Ball Joint Control arm			GMT
	xiii.	Lateral Bump stop			GMT
	xiv.	Traction center make			SF
	xv.	Traction lever make			JI
	xvi.	Ball joint traction lever			SGA
	xvii.	Traction center elastic			SGA
	xviii.	Secondary rubber pad			NA
	xix.	Rubber spring			NA
	xx.	Anti roll bar make			SARITA
	xxi.	Ball joint roll link			SARITA
	xxii.	Fork make			SARITA

  

<b>11.4</b>	i. Modification/Trail(if any):	NIL
	ii. Deviations (if any):	Deviations (If any): NIL

**LWACCN - 8150**



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

TYPE OF COACH : LWACCN      Shell No : 8150      COACH\_NO : 192743

RAILWAY : NR      COUPLING TYPE : CBC      DATE OF FITMENT: 13-APR-19

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	PP-SIDE		
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0	33501427-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR AC NAC COACHES, as per Drawing: RDSO/2011/CG-04 REV.01 with am	RDSO/2011/CG-04 REV.01 with amendment -1 (WITHOUT BRAKE DISC AND EMERGENCY BRAKE CABLE BOX NPZ 1-S OR PASSENGER EMERGENCY PILOT VALVE) AND Dy.CME/D2's LETTER NO. MD46131 DT. 11/06/2015	KNORR	0117293674
1	33635080-1, PUMP	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	2915256/ 2915227
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2691-E-18
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195255
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195256



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK**

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name PP-SIDE</b>				
1	33640932-1, GPS BASED P I SYSTEM MBU	RDSO/PE/SPEC/AC/0087,2008,REV-1 & RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
1	33640993-1, PA SYSTEM WITH VOLUME CONTROLLER	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	4548798
2	33640993-2, SPEAKERS	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	NIL
<b>Group Name NON-PP SIDE</b>				
2	33635080-2, PUMP CONTROLLER	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	CPA-6809/02/2018
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2694-E-18



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      **NON-PP SIDE**

2	33635237-2, MICRO PROCESSOR CONTROLLER	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	AE-1801392
1	33635330-1, HOT CASE	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	23/07/2018
2	33635330-2, BOTTLE COOLER CUM DEEP FREEZER	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	23/07/2018
2	33640932-2, LCD COMPARTMENT	RDSO/PE/SPEC/AC/0087,2008,REV-1 &RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL

**Group Name**      **UNDER FRAME**

0	33635183-0, 60 KVA TRANSFORMER as per Drg.No. RDSO/PE/SPEC/AC/0080-2007,(REV-1)WITH RDSO LETTER NO EL/7/1/108/TR	RDSO/PE/SPEC/AC/0080-2007,(REV-1),WITH RDSO LETTER NO EL/7/1/108/TRANSFORMER DATED 31/03/15,RCF ANN1.	RAMYAA ELECTRO-GEAR PVT. LTD.	1902-8253
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**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name UNDER FRAME**

0 33635493-0, 5KVA,415/190V,3PHASE DRY TYPE DISTRIBUTION TRANSFORMER, as per Drawing: EDTS366,REV-Nil,COR-2., Pack	EDTS366,REV- Nil,COR-2.	VIMAL TRANSFORME R CORPORATION	VTC-3089-LHB- 743
0 33640178-0, BATTERY FUSE BOX - VE, as per Drawing: LW71002,ALT- J., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71002,ALT-J.	INTEG ELECTRONICS	2017-11-209
0 33640786-0, BATTERY FUSE BOX +VE, as per Drawing: LW71001,ALT-I., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71001,ALT-I.	INTEG ELECTRONICS	2019-11-2898
0 33641729-0, 70AH,110V, VRLA MONOBLOCK LEAD ACID MAINTENANCE FREE SET WITH 9MDLS OF 12V EACH PRECHARGED BATTERY(9	RDSO/PE/SPEC/AC/0 009-2014,REV- 2,PRECHARGED.	AMARA RAJA BATTERIES LTD.	09/2018
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 'CR' AND SKED-383 IN DRG.NO. 3 10113.0.76.700.117	GOPAL ENGINEERING WORKS	NIL
1 35982913-1, CAPACITOR BANK FOR LHB EOG POWER CAR COACHES	EDML130,REV- 1,COR-5 ,TYPE-II	INTERNATION AL SWITCHGEAR PVT LTD.	CB-RCF-1811- 0203

**Group Name COMPARTMENT**

1 33641936-1, SWITCH BOARD CABINET	RDSO/PE/SPEC/AC/0 184-2015,REV-0.	ESS ESS KAY ENGG. CO. PVT. LTD.	2018-05-051
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**Group Name UNDER FRAME PP SIDE**

1 33635067-1, BOGIE 1	EDTS101 ,REV-C,AM- 1,COR-6,RCF ANNEXURE-1	MAA LAXMI INDUSTRY	196447
0		NEC SWITCHGEAR & CONTROL	NIL
0		MAA LAXMI INDUSTRY	NIL

**Group Name UNDER FRAME NPP SIDE**

2 33635067-2, BOGIE 2	EDTS101 ,REV-C,AM- 1,COR-6,RCF ANNEXURE-1	MAA LAXMI INDUSTRY	196448
0		HIND RECTIFIERS LIMITED	NIL



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RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	UNDER FRAME NPP SIDE
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0

MAA LAXMI  
INDUSTRY

NIL

SSE/EL/QC

AME/WM QC/DY CQM I



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

(FORM NO. QMF 9454 VER:1.00)							
1.	SHELL NO	<b>8149</b>	BOGIE NO	<b>196503</b>	/ <b>196504</b>	DISPATCH DATE	<b>20-APR-19</b>
2.	RAILWAY	<b>NR</b>	TYPE OF COACH	<b>LWACCN</b>	COACH NO	<b>192744</b>	
3.	BOOKED TO	<b>SSE/C&amp;W/DLI</b>					
4.	Tare Weight of Coach	<b>45.6 T</b>					
5.	Carrying Capacity	Seating	<b>72</b>	Sleeping	<b>72</b>	Luggage	<b>NIL</b>
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	<b>1102</b>	<b>1105</b>		
	v)	CBC (Make)		<b>SANROK</b>	<b>SANROK</b>		
	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/cm2	06 - 10 Sec			
			Max Pressure in BC	3.80±0.15 Kg/cm2			
			All Brake are applied	OK			
	7.2	Insensitivity	Exhaust BP @ 0.3 Kg/cm2/mi	No brake application			
	7.3	Sensitivity	Exhaust BP @ 0.1 Kg/cm2/Sec, After 02 Sec	Brake must apply			
8.	Painting Details:	Type of Paint	Make	Average Gloss Value			
	8.1	Paint	<b>PU PAINT</b>	<b>NAROLACK</b>	<b>88 / 86</b>		
	8.2	Application of PCN-123	<b>SATISFACTORY</b>				
	8.3	Insulation	<b>SATISFACTORY</b>				
9.	Traceability of Furnishing Items:						
	1	<b>EP BRAK / BRAKE EQUIPMENT</b>	<b>FAVELLY</b>				
	2	<b>SEAT &amp; BEARTH</b>	<b>OVPL</b>				
	3	<b>PVC</b>	<b>RESPONSIVE</b>				
	4	<b>FLOOR BOARD</b>	<b>TWPL</b>				
	5	<b>UIC VESTIBULES</b>	<b>KRP</b>				
	6	<b>BODY SIDE DOOR</b>	<b>JVR</b>				
	7	<b>VESTIBULE SLIDING DOOR</b>	<b>JBM</b>				
	8	<b>BIO-TOILET</b>	<b>RASANDIK</b>				
	9	<b>WATER TANKS</b>	<b>SHIVALIK, MANOJ, RAIL FAB</b>				
	10	<b>LAVATORY DOORS</b>	<b>HINDUSTAN, CMT</b>				
10.	10.1	Modification/ Trial (If any): <b>NIL</b>					
	10.2	Deviations (If any): <b>NIL</b>					



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

**QMF 9829, VER:1.00**

11.	<b>Bogie Details:</b>	Shell No.	Railway	Type	Coach No.	Dispatch Date
		8149	NR	LWACCN	192744	20-APR-19

**11.1 Wheel & Axle Details:**

i.	Bogie No.	196503				196504			
ii.	Frame No.	FIAT-CA-553				FIAT-CA-380			
iii.	Bolster No.	PD-CA-1438				PD-CA-1360			
iv.	Axle No.	RWF - K-5800		RWF - K-5439		RWF - J-5476		RWF - J-2094	
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	916.00	916.00	916.61	916.61	916.61	916.61
vii.	Wheel Disc No.	20209-70K8-TZ	41009-8RR3-TZ	13317-7ON5-TZ	36452-8RR8-TZ	13319-7ON5-TZ	14983-7PK0-TZ	32825-7TG8-TZ	37432-8RQ0-TZ
viii.	RB Nos.	15625	09209	09076	16216	16079	09182	17325	18740
ix.	RB Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
x.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING							

**11.2 Secondary suspension load deflection Values:**

Description		Lateral Damper Side	Non-Lat. Damper Side	Lateral Damper Side	Non-Lat. Damper Side
i.	Make & Nos.	TAYAL-18-12-1473	TAYAL-18-12-1476	TAYAL-18-11-1454	TAYAL-18-11-1437

**Items traceability:**

11.3	Sno.	Item			Make	
	i.	Primary Outer Spring	RSK-19-01		RSK	
	ii.	Primary inner Spring	RSK-18-11		RSK	
	iii.	Primary Damper	1656, 1702, 1673, 1640		GABRIEL	
	iv.	Secondary Damper	10750, 10752		KBI	
	v.	Lateral Damper	219581		IAI	
	vi.	Brake cylinder & Caliper	A19551-600,A19147-600, A19291-600,A19145-600		FTI	
	vii.	Brake Disc			KBI	
	viii.	Contral arm top			KUMAR	
	ix.	Control arm bottom			KUMAR	
	x.	Top rubber Pad			BONY	
	xi.	Vertical Bump Stop			GMT	
	xii.	Ball Joint Control arm			GMT	
	xiii.	Lateral Bump stop			GMT	
	xiv.	Traction center make			SARITA	
	xv.	Traction lever make			JI	
	xvi.	Ball joint traction lever			GMT	
	xvii.	Traction center elastic			SGA	
	xviii.	Secondary rubber pad			NA	
	xix.	Rubber spring			NA	
	xx.	Anti roll bar make			EMSON	
	xxi.	Ball joint roll link			SARITA	
	xxii.	Fork make			SARITA	

11.4	i.	Modification/Trail(if any):	NIL
	ii.	Deviations (if any):	Deviations (If any): NIL

**LWACCN - 8149**





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

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

TYPE OF COACH : LWACCN      Shell No : 8149      COACH\_NO : 192744

RAILWAY : NR      COUPLING TYPE : CBC      DATE OF FITMENT: 19-APR-19

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      **PP-SIDE**

0	33501427-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR AC NAC COACHES, as per Drawing: RDSO/2011/CG-04 REV.01 with am	RDSO/2011/CG-04 REV.01 with amendment -1 (WITHOUT BRAKE DISC AND EMERGENCY BRAKE CABLE BOX NPZ 1-S OR PASSENGER EMERGENCY PILOT VALVE) AND Dy.CME/D2's LETTER NO. MD46131 DT. 11/06/2015	SAB WABCO INDIA LTD.	49/18/2030
1	33635080-1, PUMP	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	2911101/ 2911102
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2816-D-18
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195258
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195236



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name PP-SIDE</b>				
1	33640932-1, GPS BASED P I SYSTEM MBU	RDSO/PE/SPEC/AC/0087,2008,REV-1 & RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
1	33640993-1, PA SYSTEM WITH VOLUME CONTROLLER	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	4148909
2	33640993-2, SPEAKERS	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	NIL
<b>Group Name NON-PP SIDE</b>				
2	33635080-2, PUMP CONTROLLER	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	CPA-6782/02/2018
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2818-D-18



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      **NON-PP SIDE**

2	33635237-2, MICRO PROCESSOR CONTROLLER	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	AE-1902115
1	33635330-1, HOT CASE	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	35/07/2018
2	33635330-2, BOTTLE COOLER CUM DEEP FREEZER	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	35/07/2018
2	33640932-2, LCD COMPARTMENT	RDSO/PE/SPEC/AC/0087,2008,REV-1 &RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL

**Group Name**      **UNDER FRAME**

0	33635183-0, 60 KVA TRANSFORMER as per Drg.No. RDSO/PE/SPEC/AC/0080-2007,(REV-1)WITH RDSO LETTER NO EL/7/1/108/TR	RDSO/PE/SPEC/AC/0080-2007,(REV-1),WITH RDSO LETTER NO EL/7/1/108/TRANSFORMER DATED 31/03/15,RCF ANN1.	ELECTRO WAVES ELECTRONICS PVT,. LTD.	W60KC-19001
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**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name UNDER FRAME</b>				
0	33635493-0, 5KVA, 415/190V, 3PHASE DRY TYPE DISTRIBUTION TRANSFORMER, as per Drawing: EDTS366, REV-Nil, COR-2., Pack	EDTS366, REV-Nil, COR-2.	VIMAL TRANSFORMER CORPORATION	VTC-3089-LHB-695
0	33640178-0, BATTERY FUSE BOX - VE, as per Drawing: LW71002, ALT-J., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71002, ALT-J.	INTEG ELECTRONICS	2017-10-072
0	33640786-0, BATTERY FUSE BOX +VE, as per Drawing: LW71001, ALT-I., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71001, ALT-I.	INTEG ELECTRONICS	2019-11-394
0	33641729-0, 70AH, 110V, VRLA MONOBLOCK LEAD ACID MAINTENANCE FREE SET WITH 9MDLS OF 12V EACH PRECHARGED BATTERY(9	RDSO/PE/SPEC/AC/0009-2014, REV-2, PRECHARGED.	AMARA RAJA BATTERIES LTD.	09/2018
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 'CR' AND SKED-383 IN DRG.NO. 3 10113.0.76.700.117	GOPAL ENGINEERING WORKS	NIL
1	35982913-1, CAPACITOR BANK FOR LHB EOG POWER CAR COACHES	EDML130, REV-1, COR-5, TYPE-II	INTERNATIONAL SWITCHGEAR PVT LTD.	CB-RCF-1811-0253
<b>Group Name COMPARTMENT</b>				
1	33641936-1, SWITCH BOARD CABINET	RDSO/PE/SPEC/AC/0184-2015, REV-0.	ESS ESS KAY ENGG. CO. PVT. LTD.	2018-05-36
<b>Group Name UNDER FRAME PP SIDE</b>				
1	33635067-1, BOGIE 1	EDTS101, REV-C, AM-1, COR-6, RCF ANNEXURE-1	M/S CHANDA & CHANDA	196504
0			NEC SWITCHGEAR & CONTROL	NIL
0			MAA LAXMI INDUSTRY	NIL
<b>Group Name UNDER FRAME NPP SIDE</b>				
2	33635067-2, BOGIE 2	EDTS101, REV-C, AM-1, COR-6, RCF ANNEXURE-1	M/S CHANDA & CHANDA	196503
0			INTERNATIONAL SWITCHGEAR PVT. LTD.	NIL



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RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	UNDER FRAME NPP SIDE			
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0			MAA LAXMI INDUSTRY	NIL
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SSE/EL/QC	AME/WM QC/DY CQM I
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**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

(FORM NO. QMF 9454 VER:1.00)									
1.	SHELL NO	8146	BOGIE NO	196471	/ 196474	DISPATCH DATE	25-APR-19		
2.	RAILWAY	NR	TYPE OF COACH	LWACCN		COACH NO	192745		
3.	BOOKED TO	SSE/C&W/DLI							
4.	Tare Weight of Coach	45.6 T							
5.	Carrying Capacity	Seating	72	Sleeping	72	Luggage	NIL		
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, LWCBC, LWLRRM), 4366 (for LWSCZDAC)				
	iv)	CBC Height		Specified: 1105 +0/-15 mm		1105	1104		
	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/cm2		06 - 10 Sec			
				Max Pressure in BC		3.80±0.15 Kg/cm2			
				All Brake are applied		OK			
	7.2	Insensitivity		Exhaust BP @ 0.3 Kg/cm2/mi		No brake application			
	7.3	Sensitivity		Exhaust BP @ 0.1 Kg/cm2/Sec, After 02 Sec		Brake must apply			
8.	Painting Details:		Type of Paint			Make	Average Gloss Value		
	8.1	Paint		PU PAINT		NAROLACK	88 / 86		
	8.2	Application of PCN-123		SATISFACTORY					
	8.3	Insulation		SATISFACTORY					
9.	Traceability of Furnishing Items:								
	1	EP BRAK / BRAKE EQUIPMENT			FAVELLY				
	2	SEAT & BEARTH			OVPL				
	3	PVC			RESPONSIVE				
	4	FLOOR BOARD			TWPL				
	5	UIC VESTIBULES			KRP				
	6	BODY SIDE DOOR			JVR				
	7	VESTIBULE SLIDING DOOR			JBM				
	8	BIO-TOILET			RAIL TECH, OMAX				
	9	WATER TANKS			SHIVALIK, AMIT, RAIL FAB				
	10	LAVATORY DOORS			HIND, CMT				
10.	10.1	Modification/ Trial (If any): NIL							
	10.2	Deviations (If any): NIL							



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

**QMF 9829, VER:1.00**

<b>11.</b>	<b>Bogie Details:</b>	Shell No.	Railway	Type	Coach No.	Dispatch Date
		8146	NR	LWACCN	192745	25-APR-19

  

<b>11.1 Wheel &amp; Axle Details:</b>									
i.	Bogie No.	196471				196474			
ii.	Frame No.	ECBT-378				ECBT-166			
iii.	Bolster No.	SF-CA-186				SF-CA-171			
iv.	Axle No.	RWF - H-9027		RWF - M-2914		RWF - G-8891		RWF - J-1485	
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	916.60	916.60	917.10	917.10	917.00	917.00
vii.	Wheel Disc No.	45532-8RN2-TZ	45530-8RS8-TZ	40312-8RS4-TZ	20313-7OK4-TZ	43745-8RM4-TZ	45377-8RM8-TZ	18686-7RL4-TZ	40099-8RL0-TZ
viii.	RB Nos.	24906	24269	15579	15565	09334	08397	14641	16498
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-18-12-1505	TAYAL-18-12-1556	TAYAL-18-12-1502	TAYAL-18-12-1503

  

<b>Items traceability:</b>				
<b>11.3</b>	Sno.	Item	Make	
	i.	Primary Outer Spring	RSK-18-08	RSK
	ii.	Primary inner Spring	FSK-18-07	FSK
	iii.	Primary Damper	11195, 11554, 11570, 11559	GABRIEL
	iv.	Secondary Damper	8575, 10690	KBI
	v.	Lateral Damper	0193	KBI
	vi.	Brake cylinder & Caliper	A19121-600,A19242-600, A19120-600,A19352-600	FTI
	vii.	Brake Disc		KBI
	viii.	Contral arm top		KUMAR
	ix.	Control arm bottom		KUMAR
	x.	Top rubber Pad		GMT
	xi.	Vertical Bump Stop		GMT
	xii.	Ball Joint Control arm		GMT
	xiii.	Lateral Bump stop		GMT
	xiv.	Traction center make		SARITA
	xv.	Traction lever make		JI
	xvi.	Ball joint traction lever		PRAG
	xvii.	Traction center elastic		SGA
	xviii.	Secondary rubber pad		NA
	xix.	Rubber spring		NA
	xx.	Anti roll bar make		SARITA
	xxi.	Ball joint roll link		SARITA
	xxii.	Fork make		SARITA

  

<b>11.4</b>	i. Modification/Trail(if any):	NIL
	ii. Deviations (if any):	Deviations (If any): NIL

**LWACCN - 8146**



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

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

TYPE OF COACH : LWACCN      Shell No : 8146      COACH\_NO : 192745

RAILWAY : NR      COUPLING TYPE : CBC      DATE OF FITMENT: 25-APR-19

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	PP-SIDE		
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0	33501427-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR AC NAC COACHES, as per Drawing: RDSO/2011/CG-04 REV.01 with am	RDSO/2011/CG-04 REV.01 with amendment -1 (WITHOUT BRAKE DISC AND EMERGENCY BRAKE CABLE BOX NPZ 1-S OR PASSENGER EMERGENCY PILOT VALVE) AND Dy.CME/D2's LETTER NO. MD46131 DT. 11/06/2015	SAB WABCO INDIA LTD.	01/18/123
1	33635080-1, PUMP	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	291149/ 291150
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2369-A-18
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195322
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195324





RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK**

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name PP-SIDE</b>				
1	33640932-1, GPS BASED P I SYSTEM MBU	RDSO/PE/SPEC/AC/0087,2008,REV-1 & RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
1	33640993-1, PA SYSTEM WITH VOLUME CONTROLLER	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	3890753
2	33640993-2, SPEAKERS	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	NIL
<b>Group Name NON-PP SIDE</b>				
2	33635080-2, PUMP CONTROLLER	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	CPA-7201/06/2018
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2384-A-18



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF

LHB 3 AC END ON GENERATION AIR BRAK

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	NON-PP SIDE
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2	33635237-2, MICRO PROCESSOR CONTROLLER	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	AE-1802456
1	33635330-1, HOT CASE	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	22/07/2018
2	33635330-2, BOTTLE COOLER CUM DEEP FREEZER	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	15/06/2018
2	33640932-2, LCD COMPARTMENT	RDSO/PE/SPEC/AC/0087,2008,REV-1 &RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL

Group Name	UNDER FRAME
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0	33635183-0, 60 KVA TRANSFORMER as per Drg.No. RDSO/PE/SPEC/AC/0080-2007,(REV-1)WITH RDSO LETTER NO EL/7/1/108/TR	RDSO/PE/SPEC/AC/0080-2007,(REV-1),WITH RDSO LETTER NO EL/7/1/108/TRANSFORMER DATED 31/03/15,RCF ANN1.	VIMAL TRANSFORMERS	VTC-3089-LHB-187
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**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name UNDER FRAME**

0 33635493-0, 5KVA,415/190V,3PHASE DRY TYPE DISTRIBUTION TRANSFORMER, as per Drawing: EDTS366,REV-Nil,COR-2., Pack	EDTS366,REV- Nil,COR-2.	VIMAL TRANSFORME R CORPORATION	VTC-3089-LHB- 700
0 33640178-0, BATTERY FUSE BOX - VE, as per Drawing: LW71002,ALT- J., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71002,ALT-J.	ELECOS ENGINEERS PVT. LTD.	2016-11-0013
0 33640786-0, BATTERY FUSE BOX +VE, as per Drawing: LW71001,ALT-I., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71001,ALT-I.	ELECOS ENGINEERS PVT. LTD.	2016-11-0010
0 33641729-0, 70AH,110V, VRLA MONOBLOCK LEAD ACID MAINTENANCE FREE SET WITH 9MDLS OF 12V EACH PRECHARGED BATTERY(9	RDSO/PE/SPEC/AC/0 009-2014,REV- 2,PRECHARGED.	AMARA RAJA BATTERIES LTD.	09/2018
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 'CR' AND SKED-383 IN DRG.NO. 3 10113.0.76.700.117	GOPAL ENGINEERING WORKS	NIL
1 35982913-1, CAPACITOR BANK FOR LHB EOG POWER CAR COACHES	EDML130,REV- 1,COR-5 ,TYPE-II	INTERNATION AL SWITCHGEAR PVT LTD.	CB-RCF-1811- 0264

**Group Name COMPARTMENT**

1 33641936-1, SWITCH BOARD CABINET	RDSO/PE/SPEC/AC/0 184-2015,REV-0.	AMIT ENGINEERS	AE-SB-488
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**Group Name UNDER FRAME PP SIDE**

1 33635067-1, BOGIE 1	EDTS101 ,REV-C,AM- 1,COR-6,RCF ANNEXURE-1	MAA LAXMI INDUSTRY	196474
0		SIDWAL REFRIGERATI ON INDUSTRIES PVT.LTD	NIL
0		MAA LAXMI INDUSTRY	NIL

**Group Name UNDER FRAME NPP SIDE**

2 33635067-2, BOGIE 2	EDTS101 ,REV-C,AM- 1,COR-6,RCF ANNEXURE-1	MAA LAXMI INDUSTRY	196471
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RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	UNDER FRAME NPP SIDE
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0

SIDWAL  
REFRIGERATI  
ON  
INDUSTRIES  
PVT.LTD

NIL

0

MAA LAXMI  
INDUSTRY

NIL

SSE/EL/QC

AME/WM QC/DY CQM I



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

(FORM NO. QMF 9454 VER:1.00)							
1.	SHELL NO	8151	BOGIE NO	196481	/ 196482	DISPATCH DATE	25-APR-19
2.	RAILWAY	NR	TYPE OF COACH	LWACCN	COACH NO		192747
3.	BOOKED TO	SSE/C&W/DLI					
4.	Tare Weight of Coach	45.6 T					
5.	Carrying Capacity	Seating	72	Sleeping	72	Luggage	NIL
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	1102	1104		
	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/cm2		06 - 10 Sec		
			Max Pressure in BC		3.80±0.15 Kg/cm2		
			All Brake are applied		OK		
	7.2	Insensitivity	Exhaust BP @ 0.3 Kg/cm2/mi		No brake application		
	7.3	Sensitivity	Exhaust BP @ 0.1 Kg/cm2/Sec, After 02 Sec		Brake must apply		
8.	Painting Details:		Type of Paint		Make	Average Gloss Value	
	8.1	Paint	PU PAINT		NAROLACK	87 / 86	
	8.2	Application of PCN-123	SATISFACTORY				
	8.3	Insulation	SATISFACTORY				
9.	Traceability of Furnishing Items:						
	1	EP BRAK / BRAKE EQUIPMENT	KBI				
	2	SEAT & BEARTH	OVPL				
	3	PVC	RESPONSIVE				
	4	FLOOR BOARD	TWPL				
	5	UIC VESTIBULES	POLYMER				
	6	BODY SIDE DOOR	JVR				
	7	VESTIBULE SLIDING DOOR	JBM				
	8	BIO-TOILET	RAIL TECH, OMAX				
	9	WATER TANKS	SHIVALIK, AMIT, RAIL FAB				
	10	LAVATORY DOORS	HINDUSTAN, CMT				
10.	10.1	Modification/ Trial (If any): NIL					
	10.2	Deviations (If any): NIL					



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

**QMF 9829, VER:1.00**

<b>11.</b>	<b>Bogie Details:</b>	Shell No.	Railway	Type	Coach No.	Dispatch Date
		8151	NR	LWACCN	192747	25-APR-19

  

<b>11.1 Wheel &amp; Axle Details:</b>									
i.	Bogie No.	196481				196482			
ii.	Frame No.	ECBT-250				ECBT-267			
iii.	Bolster No.	SF-CA-166				SF-CA-175			
iv.	Axle No.	RWF - J-2322		RWF - L-5971		RWF - K-5543		RWF - J-2137	
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.	916.51	916.53	916.65	916.67	916.00	916.00	917.00	917.00
vii.	Wheel Disc No.	40314- 8RS4-TZ	36511- 8RQ2-TZ	14874- 7RK0-TZ	05902- 7OH4-TZ	38825- 8RQ6-TZ	41274- 8RR6-TZ	18687- 7PL4-TZ	38659- 8RR4-TZ
viii.	RB Nos.	15903	14383	15599	15778	15978	16426	14440	16204
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-18-11-1453	TAYAL-18-11-1455	TAYAL-18-12-1497	TAYAL-18-11-1428

  

<b>Items traceability:</b>				
<b>11.3</b>	<b>Sno.</b>	<b>Item</b>	<b>Make</b>	
	i.	Primary Outer Spring	RSK-18-08	RSK-19-01
	ii.	Primary inner Spring	FSK-18-07	FSK-18-07
	iii.	Primary Damper	11030, 10969, 10848, 11153	11186, 11154, 11157, 11172
	iv.	Secondary Damper	8773, 8774	8779, 8778
	v.	Lateral Damper	219510	219515
	vi.	Brake cylinder & Caliper	A4847-691,A4377-691, A4854-691,A4376-691	A4839-691,A4370-691, A4323-691,A4375-691
	vii.	Brake Disc		KBI
	viii.	Contral arm top		KUMAR
	ix.	Control arm bottom		KUMAR
	x.	Top rubber Pad		GMT
	xi.	Vertical Bump Stop		GMT
	xii.	Ball Joint Control arm		GMT
	xiii.	Lateral Bump stop		GMT
	xiv.	Traction center make		SARITA
	xv.	Traction lever make		JI
	xvi.	Ball joint traction lever		PRAG
	xvii.	Traction center elastic		SGA
	xviii.	Secondary rubber pad		NA
	xix.	Rubber spring		NA
	xx.	Anti roll bar make		SARITA
	xxi.	Ball joint roll link		SARITA
	xxii.	Fork make		SARITA

  

<b>11.4</b>	i. Modification/Trail(if any):	NIL
	ii. Deviations (if any):	Deviations (If any): NIL

**LWACCN - 8151**



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

TYPE OF COACH : LWACCN      Shell No : 8151      COACH\_NO : 192747

RAILWAY : NR      COUPLING TYPE : CBC      DATE OF FITMENT: 25-APR-19

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      PP-SIDE

0	33501427-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR AC NAC COACHES, as per Drawing: RDSO/2011/CG-04 REV.01 with am	RDSO/2011/CG-04 REV.01 with amendment -1 (WITHOUT BRAKE DISC AND EMERGENCY BRAKE CABLE BOX NPZ 1-S OR PASSENGER EMERGENCY PILOT VALVE) AND Dy.CME/D2's LETTER NO. MD46131 DT. 11/06/2015	KNORR	0117443253
1	33635080-1, PUMP	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KAPSON (KIND)	18080019/ 18080020
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2383-A-18
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195329
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195319



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK**

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name PP-SIDE</b>				
1	33640932-1, GPS BASED P I SYSTEM MBU	RDSO/PE/SPEC/AC/0087,2008,REV-1 & RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
1	33640993-1, PA SYSTEM WITH VOLUME CONTROLLER	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	252017
2	33640993-2, SPEAKERS	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	NIL
<b>Group Name NON-PP SIDE</b>				
2	33635080-2, PUMP CONTROLLER	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	CPA-7220/06/2018
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2378-A-18





RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	NON-PP SIDE
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2	33635237-2, MICRO PROCESSOR CONTROLLER	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	AE-1802458
1	33635330-1, HOT CASE	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	26/06/2018
2	33635330-2, BOTTLE COOLER CUM DEEP FREEZER	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	26/06/2018
2	33640932-2, LCD COMPARTMENT	RDSO/PE/SPEC/AC/0087,2008,REV-1 &RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
Group Name UNDER FRAME				
0	33635183-0, 60 KVA TRANSFORMER as per Drg.No. RDSO/PE/SPEC/AC/0080-2007,(REV-1)WITH RDSO LETTER NO EL/7/1/108/TR	RDSO/PE/SPEC/AC/0080-2007,(REV-1),WITH RDSO LETTER NO EL/7/1/108/TRANSFORMER DATED 31/03/15.RCF ANN1.	RAMYAA ELECTRO-GEAR PVT. LTD.	1902-8246



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

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name UNDER FRAME</b>				
0	33635493-0, 5KVA, 415/190V, 3PHASE DRY TYPE DISTRIBUTION TRANSFORMER, as per Drawing: EDTS366, REV-Nil, COR-2., Pack	EDTS366, REV-Nil, COR-2.	VIMAL TRANSFORMER CORPORATION	VTC-3089-LHB-749
0	33640178-0, BATTERY FUSE BOX - VE, as per Drawing: LW71002, ALT-J., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71002, ALT-J.	INTEG ELECTRONICS	2018-05-2167
0	33640786-0, BATTERY FUSE BOX +VE, as per Drawing: LW71001, ALT-I., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71001, ALT-I.	INTEG ELECTRONICS	2018-05-326
0	33641729-0, 70AH, 110V, VRLA MONOBLOCK LEAD ACID MAINTENANCE FREE SET WITH 9MDLS OF 12V EACH PRECHARGED BATTERY(9	RDSO/PE/SPEC/AC/0009-2014, REV-2, PRECHARGED.	AMARA RAJA BATTERIES LTD.	09/2018
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 'CR' AND SKED-383 IN DRG.NO. 3 10113.0.76.700.117	GOPAL ENGINEERING WORKS	NIL
1	35982913-1, CAPACITOR BANK FOR LHB EOG POWER CAR COACHES	EDML130, REV-1, COR-5, TYPE-II	INTERNATIONAL SWITCHGEAR PVT LTD.	CB-RCF-1811-0260
<b>Group Name COMPARTMENT</b>				
1	33641936-1, SWITCH BOARD CABINET	RDSO/PE/SPEC/AC/0184-2015, REV-0.	ESS ESS KAY ENGG. CO. PVT. LTD.	2018-05-043
<b>Group Name UNDER FRAME PP SIDE</b>				
1	33635067-1, BOGIE 1	EDTS101, REV-C, AM-1, COR-6, RCF ANNEXURE-1	M/S CHANDA & CHANDA	198482
0			NEC SWITCHGEAR & CONTROL	NIL
0			MAA LAXMI INDUSTRY	NIL
<b>Group Name UNDER FRAME NPP SIDE</b>				
2	33635067-2, BOGIE 2	EDTS101, REV-C, AM-1, COR-6, RCF ANNEXURE-1	M/S CHANDA & CHANDA	198481
0			MAA LAXMI INDUSTRY	NIL
0			MAA LAXMI INDUSTRY	NIL



आर्य िवसे पीएलई  
RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS		
ROLLING STOCK CERTIFICATE OF		
LHB 3 AC END ON GENERATION AIR BRAK		
SSE/EL/QC	AME/WM QC/DY CQM I	



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

(FORM NO. QMF 9454 VER:1.00)									
1.	SHELL NO	8152	BOGIE NO	196494	/ 196495	DISPATCH DATE	26-APR-19		
2.	RAILWAY	NR	TYPE OF COACH	LWACCN		COACH NO	192746		
3.	BOOKED TO	SSE/C&W/DLI							
4.	Tare Weight of Coach	45.6 T							
5.	Carrying Capacity	Seating	72	Sleeping	72	Luggage	NIL		
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/cm2			06 - 10 Sec			
			Max Pressure in BC			3.80±0.15 Kg/cm2			
			All Brake are applied			OK			
	7.2	Insensitivity	Exhaust BP @ 0.3 Kg/cm2/mi			No brake application			
	7.3	Sensitivity	Exhaust BP @ 0.1 Kg/cm2/Sec, After 02 Sec			Brake must apply			
8.	Painting Details:		Type of Paint			Make	Average Gloss Value		
	8.1	Paint	PU PAINT			NAROLACK	89 / 87		
	8.2	Application of PCN-123	SATISFACTORY						
	8.3	Insulation	SATISFACTORY						
9.	Traceability of Furnishing Items:								
	1	EP BRAK / BRAKE EQUIPMENT			KBI				
	2	SEAT & BEARTH			OVPL				
	3	PVC			RESPONSIVE				
	4	FLOOR BOARD			TWPL				
	5	UIC VESTIBULES			POLYMER				
	6	BODY SIDE DOOR			JVR				
	7	VESTIBULE SLIDING DOOR			JBM				
	8	BIO-TOILET			RAIL TECH, OMAX				
	9	WATER TANKS			SHIVALIK, AMIT, RAIL FAB				
	10	LAVATORY DOORS			CMT				
10.	10.1	Modification/ Trial (If any): NIL							
	10.2	Deviations (If any): NIL							



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

**QMF 9829, VER:1.00**

<b>11.</b>	<b>Bogie Details:</b>	Shell No.	Railway	Type	Coach No.	Dispatch Date
		8152	NR	LWACCN	192746	26-APR-19

  

<b>11.1 Wheel &amp; Axle Details:</b>									
i.	Bogie No.	196494				196495			
ii.	Frame No.	ECBT-168				ECBT-170			
iii.	Bolster No.	PD-CA-1356				PD-CA-1393			
iv.	Axle No.	RWF - H-2900		RWF - J-9252		RWF - J-2190		RWF - H-9232	
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.	916.70	916.70	916.00	916.00	916.00	916.00	916.67	916.67
vii.	Wheel Disc No.	45103-8KN2-TZ	11691-7OK9-TZ	11692-7OK9-TZ	32827-7TG8-TZ	18246-7OQ0-TZ	18250-7PK7-TZ	38780-8RM1-TZ	45174-8RN2-TZ
viii.	RB Nos.	16238	15574	15935	13510	15885	16233	18292	18677
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-18-12-1499	TAYAL-18-12-1467	TAYAL-18-12-1542	TAYAL-18-11-1459

  

<b>Items traceability:</b>				
Sno.	Item	RSK-18-12	RSK-19-01	Make
i.	Primary Outer Spring			RSK
ii.	Primary inner Spring	FSK-18-07	FSK-18-07	FSK
iii.	Primary Damper	11183, 10845, 11167, 11201	11147, 10931, 10850, 11164	GABRIEL
iv.	Secondary Damper	10732, 10697	10677, 10665	KBI
v.	Lateral Damper	178343	219421	IAI
vi.	Brake cylinder & Caliper	B3109-691,B2363-691, B3165-691,B2320-691	B3095-691,B2365-691, B3154-691,B2336-691	KBI
vii.	Brake Disc			KBI
viii.	Contral arm top			KUMAR
ix.	Control arm bottom			KUMAR
x.	Top rubber Pad			BONY
xi.	Vertical Bump Stop			GMT
xii.	Ball Joint Control arm			GMT
xiii.	Lateral Bump stop			GMT
xiv.	Traction center make			SARITA
xv.	Traction lever make			JI
xvi.	Ball joint traction lever			GMT
xvii.	Traction center elastic			SGA
xviii.	Secondary rubber pad			NA
xix.	Rubber spring			NA
xx.	Anti roll bar make			EMSON
xxi.	Ball joint roll link			SARITA
xxii.	Fork make			SARITA

  

<b>11.4</b>	i. Modification/Trail(if any):	NIL
	ii. Deviations (if any):	Deviations (If any): NIL

**LWACCN - 8152**



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

TYPE OF COACH : LWACCN      Shell No : 8152      COACH\_NO : 192746

RAILWAY : NR      COUPLING TYPE : CBC      DATE OF FITMENT: 26-APR-19

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      **PP-SIDE**

0	33501427-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR AC NAC COACHES, as per Drawing: RDSO/2011/CG-04 REV.01 with am	RDSO/2011/CG-04 REV.01 with amendment -1 (WITHOUT BRAKE DISC AND EMERGENCY BRAKE CABLE BOX NPZ 1-S OR PASSENGER EMERGENCY PILOT VALVE) AND Dy.CME/D2's LETTER NO. MD46131 DT. 11/06/2015	KNORR	0117193370
1	33635080-1, PUMP	EDTS186,REV-A,AM-2,COR-1&2WITH ANN.1.	KALSI METAL WORK PVT.LTD	291548/ 291549
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2574-D-18
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195320
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195318



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name PP-SIDE</b>				
1	33640932-1, GPS BASED P I SYSTEM MBU	RDSO/PE/SPEC/AC/0087,2008,REV-1 & RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
1	33640993-1, PA SYSTEM WITH VOLUME CONTROLLER	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	4548837
2	33640993-2, SPEAKERS	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	NIL
<b>Group Name NON-PP SIDE</b>				
2	33635080-2, PUMP CONTROLLER	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	CPA-6765/02/2018
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2576-D-18



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	NON-PP SIDE
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2	33635237-2, MICRO PROCESSOR CONTROLLER	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	AE-1806687
1	33635330-1, HOT CASE	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	01/06/2018
2	33635330-2, BOTTLE COOLER CUM DEEP FREEZER	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	07/2018
2	33640932-2, LCD COMPARTMENT	RDSO/PE/SPEC/AC/0087,2008,REV-1 &RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
Group Name UNDER FRAME				
0	33635183-0, 60 KVA TRANSFORMER as per Drg.No. RDSO/PE/SPEC/AC/0080-2007,(REV-1)WITH RDSO LETTER NO EL/7/1/108/TR	RDSO/PE/SPEC/AC/0080-2007,(REV-1),WITH RDSO LETTER NO EL/7/1/108/TRANSFORMER DATED 31/03/15.RCF ANN1.	RAMYAA ELECTRO-GEAR PVT. LTD.	1902-8267





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

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name UNDER FRAME**

0 33635493-0, 5KVA,415/190V,3PHASE DRY TYPE DISTRIBUTION TRANSFORMER, as per Drawing: EDTS366,REV-Nil,COR-2., Pack	EDTS366,REV- Nil,COR-2.	VIMAL TRANSFORME R CORPORATION	VTC-3089-LHB- 728
0 33640178-0, BATTERY FUSE BOX - VE, as per Drawing: LW71002,ALT- J., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71002,ALT-J.	INTEG ELECTRONICS	2017-11-213
0 33640786-0, BATTERY FUSE BOX +VE, as per Drawing: LW71001,ALT-I., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71001,ALT-I.	INTEG ELECTRONICS	2018-11-2389
0 33641729-0, 70AH,110V, VRLA MONOBLOCK LEAD ACID MAINTENANCE FREE SET WITH 9MDLS OF 12V EACH PRECHARGED BATTERY(9	RDSO/PE/SPEC/AC/0 009-2014,REV- 2,PRECHARGED.	AMARA RAJA BATTERIES LTD.	09/2018
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 'CR' AND SKED-383 IN DRG.NO. 3 10113.0.76.700.117	GOPAL ENGINEERING WORKS	NIL
1 35982913-1, CAPACITOR BANK FOR LHB EOG POWER CAR COACHES	EDML130,REV- 1,COR-5 ,TYPE-II	INTERNATION AL SWITCHGEAR PVT LTD.	CB-RCF-1811- 0270

**Group Name COMPARTMENT**

1 33641936-1, SWITCH BOARD CABINET	RDSO/PE/SPEC/AC/0 184-2015,REV-0.	ESS ESS KAY ENGG. CO. PVT. LTD.	2018-05-055
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**Group Name UNDER FRAME PP SIDE**

1 33635067-1, BOGIE 1	EDTS101 ,REV-C,AM- 1,COR-6,RCF ANNEXURE-1	M/S CHANDA & CHANDA	196494
0		NEC SWITCHGEAR & CONTROL	NIL
0		MAA LAXMI INDUSTRY	NIL

**Group Name UNDER FRAME NPP SIDE**

2 33635067-2, BOGIE 2	EDTS101 ,REV-C,AM- 1,COR-6,RCF ANNEXURE-1	M/S CHANDA & CHANDA	196495
0		NEC SWITCHGEAR & CONTROL	NIL



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RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	UNDER FRAME NPP SIDE
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0

MAA LAXMI  
INDUSTRY

NIL

SSE/EL/QC

AME/WM QC/DY CQM I



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

(FORM NO. QMF 9454 VER:1.00)									
1.	SHELL NO	8153	BOGIE NO	196469	/ 196470	DISPATCH DATE	30-APR-19		
2.	RAILWAY	NR	TYPE OF COACH	LWACCN		COACH NO	192750		
3.	BOOKED TO	SSE/C&W/DLI							
4.	Tare Weight of Coach	45.6 T							
5.	Carrying Capacity	Seating	72	Sleeping	72	Luggage	NIL		
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			1102	1104		
	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/cm2			06 - 10 Sec			
			Max Pressure in BC			3.80±0.15 Kg/cm2			
			All Brake are applied			OK			
	7.2	Insensitivity	Exhaust BP @ 0.3 Kg/cm2/mi			No brake application			
	7.3	Sensitivity	Exhaust BP @ 0.1 Kg/cm2/Sec, After 02 Sec			Brake must apply			
8.	Painting Details:		Type of Paint			Make	Average Gloss Value		
	8.1	Paint	PU PAINT			NAROLACK	89 / 88		
	8.2	Application of PCN-123	SATISFACTORY						
	8.3	Insulation	SATISFACTORY						
9.	Traceability of Furnishing Items:								
	1	EP BRAK / BRAKE EQUIPMENT			KBI				
	2	SEAT & BEARTH			OVPL				
	3	PVC			RESPONSIVE				
	4	FLOOR BOARD			TWPL				
	5	UIC VESTIBULES			POLYMER				
	6	BODY SIDE DOOR			JBM, JVR				
	7	VESTIBULE SLIDING DOOR			JBM				
	8	BIO-TOILET			RAIL TECH, OMAX				
	9	WATER TANKS			AMIT, AMIT, RAIL FAB				
	10	LAVATORY DOORS			HIND				
10.	10.1	Modification/ Trial (If any): NIL							
	10.2	Deviations (If any): NIL							



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

**QMF 9829, VER:1.00**

<b>11.</b>	<b>Bogie Details:</b>	Shell No.	Railway	Type	Coach No.	Dispatch Date
		8153	NR	LWACCN	192750	30-APR-19

  

<b>11.1 Wheel &amp; Axle Details:</b>									
i.	Bogie No.	196469				196470			
ii.	Frame No.	ECBT-381				ECBT-391			
iii.	Bolster No.	PD-CA-1453				SF-CA-174			
iv.	Axle No.	RWF - J-2311		RWF - J-1683		RWF - M-8874		RWF - L-5352	
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.	916.50	916.50	916.70	916.70	916.60	916.60	916.65	916.65
vii.	Wheel Disc No.	38831-8RQ2-TZ	40313-8RS4-TZ	36509-8RQ2-TZ	36507-8RQ7-TZ	40310-8RT1-TZ	38734-8PQ0-TZ	40309-8RS4-TZ	38733-RH1-TZ
viii.	RB Nos.	12079	16264	16403	17350	16221	15557	15760	16213
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-18-12-1530	TAYAL-18-12-1549	TAYAL-18-12-1531	TAYAL-18-12-1515

  

<b>Items traceability:</b>				
<b>11.3</b>	<b>Sno.</b>	<b>Item</b>	<b>Make</b>	
	i.	Primary Outer Spring	RSK-19-01	RSK-19-01
	ii.	Primary inner Spring	FSK-18-07	FSK-18-07
	iii.	Primary Damper	11141, 10976, 11199, 10945	11518, 11450, 11513, 11213
	iv.	Secondary Damper	10745, 8573	8567, 10751
	v.	Lateral Damper	219468	0190
	vi.	Brake cylinder & Caliper	A5698-691,A5253-691, A5704-691,A5241-691	09244-691,08996-691, 09245-691,08995-691
	vii.	Brake Disc		KBI
	viii.	Contral arm top		KUMAR
	ix.	Control arm bottom		KUMAR
	x.	Top rubber Pad		GMT
	xi.	Vertical Bump Stop		GMT
	xii.	Ball Joint Control arm		GMT
	xiii.	Lateral Bump stop		GMT
	xiv.	Traction center make		RNG
	xv.	Traction lever make		JI
	xvi.	Ball joint traction lever		PRAG
	xvii.	Traction center elastic		SGA
	xviii.	Secondary rubber pad		NA
	xix.	Rubber spring		NA
	xx.	Anti roll bar make		SARITA
	xxi.	Ball joint roll link		SARITA
	xxii.	Fork make		SARITA

  

<b>11.4</b>	i. Modification/Trail(if any):	NIL
	ii. Deviations (if any):	Deviations (If any): NIL

**LWACCN - 8153**



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

TYPE OF COACH : LWACCN      Shell No : 8153      COACH\_NO : 192750

RAILWAY : NR      COUPLING TYPE : CBC      DATE OF FITMENT: 03-MAY-19

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	PP-SIDE		
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0	33501427-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR AC NAC COACHES, as per Drawing: RDSO/2011/CG-04 REV.01 with am	RDSO/2011/CG-04 REV.01 with amendment -1 (WITHOUT BRAKE DISC AND EMERGENCY BRAKE CABLE BOX NPZ 1-S OR PASSENGER EMERGENCY PILOT VALVE) AND Dy.CME/D2's LETTER NO. MD46131 DT. 11/06/2015	KNOEE BREMSE INDIA PVT.LTD	0117223472
1	33635080-1, PUMP	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KAPSON (KIND)	18070459/ 18070460
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2437-B-18
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD 195347 / 195341



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name PP-SIDE</b>				
1	33640932-1, GPS BASED P I SYSTEM MBU	RDSO/PE/SPEC/AC/0087,2008,REV-1 & RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
1	33640993-1, PA SYSTEM WITH VOLUME CONTROLLER	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	4548818
2	33640993-2, SPEAKERS	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	NIL
<b>Group Name NON-PP SIDE</b>				
2	33635080-2, PUMP CONTROLLER	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	CPA-7198/06-2018
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2427-B-18



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      **NON-PP SIDE**

2	33635237-2, MICRO PROCESSOR CONTROLLER	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	AE-1809200
1	33635330-1, HOT CASE	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	13/07/2018
2	33635330-2, BOTTLE COOLER CUM DEEP FREEZER	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	13/07/2018
2	33640932-2, LCD COMPARTMENT	RDSO/PE/SPEC/AC/0087,2008,REV-1 &RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL

**Group Name**      **UNDER FRAME**

0	33635183-0, 60 KVA TRANSFORMER as per Drg.No. RDSO/PE/SPEC/AC/0080-2007,(REV-1)WITH RDSO LETTER NO EL/7/1/108/TR	RDSO/PE/SPEC/AC/0080-2007,(REV-1),WITH RDSO LETTER NO EL/7/1/108/TRANSFORMER DATED 31/03/15,RCF ANN1.	VIMAL TRANSFORMER CORPORATION	VTC-3089-LHB-191
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**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name UNDER FRAME</b>				
0	33635493-0, 5KVA, 415/190V, 3PHASE DRY TYPE DISTRIBUTION TRANSFORMER, as per Drawing: EDTS366, REV-Nil, COR-2., Pack	EDTS366, REV-Nil, COR-2.	VIMAL TRANSFORMER CORPORATION	VTC-3089-LHB-644
0	33640178-0, BATTERY FUSE BOX - VE, as per Drawing: LW71002, ALT-J., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71002, ALT-J.	INTEG ELECTRONICS	2018-08-2166
0	33640786-0, BATTERY FUSE BOX +VE, as per Drawing: LW71001, ALT-I., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71001, ALT-I.	INTEG ELECTRONICS	2018-11-2253
0	33641729-0, 70AH, 110V, VRLA MONOBLOCK LEAD ACID MAINTENANCE FREE SET WITH 9MDLS OF 12V EACH PRECHARGED BATTERY(9	RDSO/PE/SPEC/AC/0009-2014, REV-2, PRECHARGED.	AMARA RAJA BATTERIES LTD.	09/2018
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 'CR' AND SKED-383 IN DRG.NO. 3 10113.0.76.700.117	GOPAL ENGINEERING WORKS	NIL
1	35982913-1, CAPACITOR BANK FOR LHB EOG POWER CAR COACHES	EDML130, REV-1, COR-5, TYPE-II	INTERNATIONAL SWITCHGEAR PVT LTD.	CB-RCF-1811-0216
<b>Group Name COMPARTMENT</b>				
1	33641936-1, SWITCH BOARD CABINET	RDSO/PE/SPEC/AC/0184-2015, REV-0.	HIND RECTIFIER	H018418088
<b>Group Name UNDER FRAME PP SIDE</b>				
1	33635067-1, BOGIE 1	EDTS101, REV-C, AM-1, COR-6, RCF ANNEXURE-1	M/S CHANDA & CHANDA	196469
0			HIND RECTIFIERS LIMITED	NIL
0			MAA LAXMI INDUSTRY	NIL
<b>Group Name UNDER FRAME NPP SIDE</b>				
2	33635067-2, BOGIE 2	EDTS101, REV-C, AM-1, COR-6, RCF ANNEXURE-1	M/S CHANDA & CHANDA	196470
0			SIDWAL REFRIGERATION INDUSTRIES PVT.LTD	NIL





आर्य िवसे पाले  
RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	UNDER FRAME NPP SIDE
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MAA LAXMI  
INDUSTRY

NIL

SSE/EL/QC

AME/WM QC/DY CQM I



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

(FORM NO. QMF 9454 VER:1.00)							
1.	SHELL NO	8155	BOGIE NO	196445	/ 196446	DISPATCH DATE	30-APR-19
2.	RAILWAY	NR	TYPE OF COACH	LWACCN	COACH NO		192749
3.	BOOKED TO	SSE/C&W/DLI					
4.	Tare Weight of Coach	45.6 T					
5.	Carrying Capacity	Seating	72	Sleeping	72	Luggage	NIL
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, LWCBC, 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/cm2		06 - 10 Sec		
			Max Pressure in BC		3.80±0.15 Kg/cm2		
			All Brake are applied		OK		
	7.2	Insensitivity	Exhaust BP @ 0.3 Kg/cm2/mi		No brake application		
	7.3	Sensitivity	Exhaust BP @ 0.1 Kg/cm2/Sec, After 02 Sec		Brake must apply		
8.	Painting Details:		Type of Paint		Make	Average Gloss Value	
	8.1	Paint	PU PAINT		NAROLACK	88 / 89	
	8.2	Application of PCN-123	SATISFACTORY				
	8.3	Insulation	SATISFACTORY				
9.	Traceability of Furnishing Items:						
	1	EP BRAK / BRAKE EQUIPMENT	FAVELLY				
	2	SEAT & BEARTH	OVPL				
	3	PVC	RESPONSIVE				
	4	FLOOR BOARD	TWPL				
	5	UIC VESTIBULES	POLYMER				
	6	BODY SIDE DOOR	JVR				
	7	VESTIBULE SLIDING DOOR	JBM				
	8	BIO-TOILET	RAIL TECH, OMAX				
	9	WATER TANKS	AMIT, RAIL FAB				
	10	LAVATORY DOORS	HINDUSTAN				
10.	10.1	Modification/ Trial (If any): NIL					
	10.2	Deviations (If any): NIL					



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

**QMF 9829, VER:1.00**

11.	<b>Bogie Details:</b>	Shell No.	Railway	Type	Coach No.	Dispatch Date
		8155	NR	LWACCN	192749	30-APR-19

**11.1 Wheel & Axle Details:**

i.	Bogie No.	196445				196446			
ii.	Frame No.	ECBT-210				ECBT-211			
iii.	Bolster No.	PD-CA-1419				SF-CA-185			
iv.	Axle No.	RWF - L-5711		RWF - J-8622		RWF - K-5328		RWF - H-9054	
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.	916.60	916.60	916.90	916.90	917.10	917.10	917.00	917.00
vii.	Wheel Disc No.	44813-8RP1-TZ	44814-8RN4-TZ	38798-8RQ6-TZ	38801-8RQ7-TZ	44818-8RN2-TZ	35625-8RN9-TZ	38802-8RQ6-TZ	38803-8RQ9-TZ
viii.	RB Nos.	16285	14217	16273	16387	15588	15827	13452	18315
ix.	RB Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
x.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING							

**11.2 Secondary suspension load deflection Values:**

Description		Lateral Damper Side	Non-Lat. Damper Side	Lateral Damper Side	Non-Lat. Damper Side
i.	Make & Nos.	TAYAL-18-12-1550	TAYAL-18-12-1826	TAYAL-18-12-1546	TAYAL-18-12-1486

**Items traceability:**

11.3	Sno.	Item			Make	
	i.	Primary Outer Spring	RSK-18-08		RSK	
	ii.	Primary inner Spring	FSK-18-07		FSK	
	iii.	Primary Damper	11054, 10895, 10892, 11275		GABRIEL	
	iv.	Secondary Damper	8697, 8676		KBI	
	v.	Lateral Damper	0167		KBI	
	vi.	Brake cylinder & Caliper	A19201-600,A19276-600, A19370-600,A19310-600		FTI	
	vii.	Brake Disc			KBI	
	viii.	Contral arm top			KUMAR	
	ix.	Control arm bottom			KUMAR	
	x.	Top rubber Pad			GMT	
	xi.	Vertical Bump Stop			GMT	
	xii.	Ball Joint Control arm			GMT	
	xiii.	Lateral Bump stop			GMT	
	xiv.	Traction center make			SARITA	
	xv.	Traction lever make			JI	
	xvi.	Ball joint traction lever			SGA	
	xvii.	Traction center elastic			SGA	
	xviii.	Secondary rubber pad			NA	
	xix.	Rubber spring			NA	
	xx.	Anti roll bar make			SARITA	
	xxi.	Ball joint roll link			SARITA	
	xxii.	Fork make			SARITA	

11.4	i.	Modification/Trail(if any):	NIL
	ii.	Deviations (if any):	Deviations (If any): NIL

**LWACCN - 8155**



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

TYPE OF COACH : LWACCN      Shell No : 8155      COACH\_NO : 192749

RAILWAY : NR      COUPLING TYPE : CBC      DATE OF FITMENT: 30-APR-19

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      **PP-SIDE**

0	33501427-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR AC NAC COACHES, as per Drawing: RDSO/2011/CG-04 REV.01 with am	RDSO/2011/CG-04 REV.01 with amendment -1 (WITHOUT BRAKE DISC AND EMERGENCY BRAKE CABLE BOX NPZ 1-S OR PASSENGER EMERGENCY PILOT VALVE) AND Dy.CME/D2's LETTER NO. MD46131 DT. 11/06/2015	SAB WABCO INDIA LTD.	48/18/2019
1	33635080-1, PUMP	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	291536/ 291537
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2413-B-18
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195337
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD-195360



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK**

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name PP-SIDE</b>				
1	33640932-1, GPS BASED P I SYSTEM MBU	RDSO/PE/SPEC/AC/0087,2008,REV-1 & RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
1	33640993-1, PA SYSTEM WITH VOLUME CONTROLLER	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	4548827
2	33640993-2, SPEAKERS	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	NIL
<b>Group Name NON-PP SIDE</b>				
2	33635080-2, PUMP CONTROLLER	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	CPA-7209/06/2018
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2425-B-18



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF

LHB 3 AC END ON GENERATION AIR BRAK

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	NON-PP SIDE
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2	33635237-2, MICRO PROCESSOR CONTROLLER	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	AE-1810923
1	33635330-1, HOT CASE	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	37-07-2018
2	33635330-2, BOTTLE COOLER CUM DEEP FREEZER	EDTS139,REV-E,COR-5.	VISHAL GAS SERVICES	07-2018
2	33640932-2, LCD COMPARTMENT	RDSO/PE/SPEC/AC/0087,2008,REV-1 &RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL

Group Name	UNDER FRAME
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0	33635183-0, 60 KVA TRANSFORMER as per Drg.No. RDSO/PE/SPEC/AC/0080-2007,(REV-1)WITH RDSO LETTER NO EL/7/1/108/TR	RDSO/PE/SPEC/AC/0080-2007,(REV-1),WITH RDSO LETTER NO EL/7/1/108/TRANSFORMER DATED 31/03/15,RCF ANN1.	VIMAL TRANSFORMERS	VTC-3089-LHB-735
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**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name UNDER FRAME**

0 33635493-0, 5KVA,415/190V,3PHASE DRY TYPE DISTRIBUTION TRANSFORMER, as per Drawing: EDTS366,REV-Nil,COR-2., Pack	EDTS366,REV- Nil,COR-2.	VIMAL TRANSFORME R CORPORATION	VTC-3089-LHB- 735
0 33640178-0, BATTERY FUSE BOX - VE, as per Drawing: LW71002,ALT- J., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71002,ALT-J.	INTEG ELECTRONICS	2018-08-2169
0 33640786-0, BATTERY FUSE BOX +VE, as per Drawing: LW71001,ALT-I., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71001,ALT-I.	INTEG ELECTRONICS	2018-05-321
0 33641729-0, 70AH,110V, VRLA MONOBLOCK LEAD ACID MAINTENANCE FREE SET WITH 9MDLS OF 12V EACH PRECHARGED BATTERY(9	RDSO/PE/SPEC/AC/0 009-2014,REV- 2,PRECHARGED.	AMARA RAJA BATTERIES LTD.	09/2018
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 'CR' AND SKED-383 IN DRG.NO. 3 10113.0.76.700.117	GOPAL ENGINEERING WORKS	NIL
1 35982913-1, CAPACITOR BANK FOR LHB EOG POWER CAR COACHES	EDML130,REV- 1,COR-5 ,TYPE-II	INTERNATION AL SWITCHGEAR PVT LTD.	CB-RCF-1811- 0239

**Group Name COMPARTMENT**

1 33641936-1, SWITCH BOARD CABINET	RDSO/PE/SPEC/AC/0 184-2015,REV-0.	ESS ESS KAY ENGG. CO. PVT. LTD.	2018/05/049
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**Group Name UNDER FRAME PP SIDE**

1 33635067-1, BOGIE 1	EDTS101 ,REV-C,AM- 1,COR-6,RCF ANNEXURE-1	M/S MAA LAXMI INDUSTRY	196445
0		SIDWAL REFRIGERATI ON INDUSTRIES PVT.LTD	NIL
0		MAA LAXMI INDUSTRY	NIL

**Group Name UNDER FRAME NPP SIDE**

2 33635067-2, BOGIE 2	EDTS101 ,REV-C,AM- 1,COR-6,RCF ANNEXURE-1	M/S MAA LAXMI INDUSTRY	198446
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RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	UNDER FRAME NPP SIDE
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SIDWAL  
REFRIGERATI  
ON  
INDUSTRIES  
PVT.LTD

NIL

0

MAA LAXMI  
INDUSTRY

NIL

SSE/EL/QC

AME/WM QC/DY CQM I





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

(FORM NO. QMF 9454 VER:1.00)							
1.	SHELL NO	8156	BOGIE NO	196443	/ 196444	DISPATCH DATE	30-APR-19
2.	RAILWAY	NR	TYPE OF COACH	LWACCN	COACH NO		192748
3.	BOOKED TO	SSE/C&W/DLI					
4.	Tare Weight of Coach	45.6 T					
5.	Carrying Capacity	Seating	72	Sleeping	72	Luggage	NIL
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/cm2		06 - 10 Sec		
			Max Pressure in BC		3.80±0.15 Kg/cm2		
			All Brake are applied		OK		
	7.2	Insensitivity	Exhaust BP @ 0.3 Kg/cm2/mi		No brake application		
	7.3	Sensitivity	Exhaust BP @ 0.1 Kg/cm2/Sec, After 02 Sec		Brake must apply		
8.	Painting Details:		Type of Paint		Make	Average Gloss Value	
	8.1	Paint	PU PAINT		NAROLACK	86 / 85	
	8.2	Application of PCN-123	SATISFACTORY				
	8.3	Insulation	SATISFACTORY				
9.	Traceability of Furnishing Items:						
	1	EP BRAK / BRAKE EQUIPMENT		FAVELLY			
	2	SEAT & BEARTH		OVPL			
	3	PVC		RESPONSIVE			
	4	FLOOR BOARD		TWPL			
	5	UIC VESTIBULES		POLYMER			
	6	BODY SIDE DOOR		JVR			
	7	VESTIBULE SLIDING DOOR		JBM			
	8	BIO-TOILET		RASANDIK			
	9	WATER TANKS		SHIVALIK, AMIT, RAIL FAB			
	10	LAVATORY DOORS		HIND			
10.	10.1	Modification/ Trial (If any): NIL					
	10.2	Deviations (If any): NIL					



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

**QMF 9829, VER:1.00**

<b>11.</b>	<b>Bogie Details:</b>	Shell No.	Railway	Type	Coach No.	Dispatch Date
		8156	NR	LWACCN	192748	30-APR-19

  

<b>11.1 Wheel &amp; Axle Details:</b>									
i.	Bogie No.	196443				196444			
ii.	Frame No.	ECBT-079				ECBT-207			
iii.	Bolster No.	SF-CA-149				PD-CA-1410			
iv.	Axle No.	RWF - K-6013		RWF - J-1983		RWF - K-5908		RWF - H-7270	
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.	917.10	917.10	916.90	916.92	917.00	917.00	916.90	916.90
vii.	Wheel Disc No.	44819- 8RN4-TZ	20716- 8PN7-TZ	43053- 8SG0-TZ	44425- 8RP5-TZ	40510- 8RQ1-TZ	18682- 7PL4-TZ	45153- 8RN2-TZ	19009- 8MY0-TZ
viii.	RB Nos.	09842	08942	10004	08325	09226	08698	09604	08842
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-18-12-1538	TAYAL-18-12-1510	TAYAL-18-12-1488	TAYAL-18-12-1495

  

<b>Items traceability:</b>				
Sno.	Item			Make
i.	Primary Outer Spring	RSK-18-07	RSK-18-07	RSK
ii.	Primary inner Spring	FSK-18-07	FSK-18-07	FSK
iii.	Primary Damper	11332, 10896, 10773, 10894	11003, 11470, 10705, 11348	GABRIEL
iv.	Secondary Damper	8667, 8671	8675, 8674	KBI
v.	Lateral Damper	160	0183	KBI
vi.	Brake cylinder & Caliper	A19230-600,A19257-600, A19509-600,A19356-600	A19223-600,A19240-600, A19122-600,A19399-600	FTI
vii.	Brake Disc			KBI
viii.	Contral arm top			KUMAR
ix.	Control arm bottom			KUMAR
x.	Top rubber Pad			GMT
xi.	Vertical Bump Stop			GMT
xii.	Ball Joint Control arm			GMT
xiii.	Lateral Bump stop			GMT
xiv.	Traction center make			SARITA
xv.	Traction lever make			JI
xvi.	Ball joint traction lever			SGA
xvii.	Traction center elastic			SGA
xviii.	Secondary rubber pad			NA
xix.	Rubber spring			NA
xx.	Anti roll bar make			SARITA
xxi.	Ball joint roll link			SARITA
xxii.	Fork make			SARITA

  

<b>11.4</b>	i. Modification/Trail(if any):	NIL
	ii. Deviations (if any):	Deviations (If any): NIL

**LWACCN - 8156**



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

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

**TYPE OF COACH :** LWACCN      **Shell No :** 8156      **COACH\_NO :** 192748

**RAILWAY :** NR      **COUPLING TYPE :** CBC      **DATE OF FITMENT:** 30-APR-19

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      **PP-SIDE**

<b>0</b> 33501427-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR AC NAC COACHES, as per Drawing: RDSO/2011/CG-04 REV.01 with am	RDSO/2011/CG-04 REV.01 with amendment -1 (WITHOUT BRAKE DISC AND EMERGENCY BRAKE CABLE BOX NPZ 1-S OR PASSENGER EMERGENCY PILOT VALVE) AND Dy.CME/D2's LETTER NO. MD46131 DT. 11/06/2015	SAB WABCO INDIA LTD.	01/18/129
<b>1</b> 33635080-1, PUMP	EDTS186,REV-A,AM-2,COR-1&2WITH ANNX.1.	KAPSON (KIND)	18080013/ 18080014
<b>1</b> 33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	3362-B-18
<b>0</b> 33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	NIL
<b>0</b> 33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	NIL



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name PP-SIDE</b>				
1	33640932-1, GPS BASED P I SYSTEM MBU	RDSO/PE/SPEC/AC/0087,2008,REV-1 & RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
1	33640993-1, PA SYSTEM WITH VOLUME CONTROLLER	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	3316957
2	33640993-2, SPEAKERS	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	NIL
<b>Group Name NON-PP SIDE</b>				
2	33635080-2, PUMP CONTROLLER	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	CPA-7986/06/2018
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	3373-B-18



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name**      **NON-PP SIDE**

2	33635237-2, MICRO PROCESSOR CONTROLLER	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	AE-1809894
1	33635330-1, HOT CASE	EDTS139,REV-E,COR-5.	SPECTRUM SCIENTIFIC	SSFR-3T-078
2	33635330-2, BOTTLE COOLER CUM DEEP FREEZER	EDTS139,REV-E,COR-5.	SPECTRUM SCIENTIFIC	SSFR-3T-074
2	33640932-2, LCD COMPARTMENT	RDSO/PE/SPEC/AC/0087,2008,REV-1 &RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL

**Group Name**      **UNDER FRAME**

0	33635183-0, 60 KVA TRANSFORMER as per Drg.No. RDSO/PE/SPEC/AC/0080-2007,(REV-1)WITH RDSO LETTER NO EL/7/1/108/TR	RDSO/PE/SPEC/AC/0080-2007,(REV-1),WITH RDSO LETTER NO EL/7/1/108/TRANSFORMER DATED 31/03/15,RCF ANN1.	VIMAL TRANSFORMERS	VTC-3089-LHB-184
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**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name UNDER FRAME</b>				
0	33635493-0, 5KVA, 415/190V, 3PHASE DRY TYPE DISTRIBUTION TRANSFORMER, as per Drawing: EDTS366, REV-Nil, COR-2., Pack	EDTS366, REV-Nil, COR-2.	VIMAL TRANSFORMER CORPORATION	VTC-3089-LHB-690
0	33640178-0, BATTERY FUSE BOX - VE, as per Drawing: LW71002, ALT-J., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71002, ALT-J.	INTEG ELECTRONICS	2018-08-2145
0	33640786-0, BATTERY FUSE BOX +VE, as per Drawing: LW71001, ALT-I., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71001, ALT-I.	INTEG ELECTRONICS	2018-05-389
0	33641729-0, 70AH, 110V, VRLA MONOBLOCK LEAD ACID MAINTENANCE FREE SET WITH 9MDLS OF 12V EACH PRECHARGED BATTERY(9	RDSO/PE/SPEC/AC/0009-2014, REV-2, PRECHARGED.	AMARA RAJA BATTERIES LTD.	09/2018
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 'CR' AND SKED-383 IN DRG.NO. 3 10113.0.76.700.117	GOPAL ENGINEERING WORKS	NIL
1	35982913-1, CAPACITOR BANK FOR LHB EOG POWER CAR COACHES	EDML130, REV-1, COR-5, TYPE-II	INTERNATIONAL SWITCHGEAR PVT LTD.	CB-RCF-1811-0228
<b>Group Name COMPARTMENT</b>				
1	33641936-1, SWITCH BOARD CABINET	RDSO/PE/SPEC/AC/0184-2015, REV-0.	AMIT ENGINEERS	AE-SB-486
<b>Group Name UNDER FRAME PP SIDE</b>				
1	33635067-1, BOGIE 1	EDTS101, REV-C, AM-1, COR-6, RCF ANNEXURE-1	M/S MAA LAXMI INDUSTRY	196444
0			NEC SWITCHGEAR & CONTROL	NIL
0			MAA LAXMI INDUSTRY	NIL
<b>Group Name UNDER FRAME NPP SIDE</b>				
2	33635067-2, BOGIE 2	EDTS101, REV-C, AM-1, COR-6, RCF ANNEXURE-1	M/S MAA LAXMI INDUSTRY	196443
0			HIND RECTIFIERS LIMITED	NIL
0			MAA LAXMI INDUSTRY	NIL



आर्य समाज  
RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS		
ROLLING STOCK CERTIFICATE OF		
LHB 3 AC END ON GENERATION AIR BRAK		
SSE/EL/QC	AME/WM QC/DY CQM I	



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

(FORM NO. QMF 9454 VER:1.00)									
1.	SHELL NO	8159	BOGIE NO	196573	/ 196574	DISPATCH DATE	30-APR-19		
2.	RAILWAY	NR	TYPE OF COACH	LWACCN		COACH NO	192752		
3.	BOOKED TO	SSE/C&W/DLI							
4.	Tare Weight of Coach	45.6 T							
5.	Carrying Capacity	Seating	72	Sleeping	72	Luggage	NIL		
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, LWCBAC, 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/cm2			06 - 10 Sec			
			Max Pressure in BC			3.80±0.15 Kg/cm2			
			All Brake are applied			OK			
	7.2	Insensitivity	Exhaust BP @ 0.3 Kg/cm2/mi			No brake application			
	7.3	Sensitivity	Exhaust BP @ 0.1 Kg/cm2/Sec, After 02 Sec			Brake must apply			
8.	Painting Details:		Type of Paint			Make	Average Gloss Value		
	8.1	Paint	PU PAINT			NAROLACK	86 / 87		
	8.2	Application of PCN-123	SATISFACTORY						
	8.3	Insulation	SATISFACTORY						
9.	Traceability of Furnishing Items:								
	1	EP BRAK / BRAKE EQUIPMENT			KBI				
	2	SEAT & BEARTH			OVPL				
	3	PVC			RESPONSIVE				
	4	FLOOR BOARD			TWPL				
	5	UIC VESTIBULES			POLYMER				
	6	BODY SIDE DOOR			JBM, JVR				
	7	VESTIBULE SLIDING DOOR			JBM				
	8	BIO-TOILET			RAIL TECH, OMAX				
	9	WATER TANKS			AMIT, AMIT, RAIL FAB				
	10	LAVATORY DOORS			HIND				
10.	10.1	Modification/ Trial (If any): NIL							
	10.2	Deviations (If any): NIL							





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

**QMF 9829, VER:1.00**

<b>11.</b>	<b>Bogie Details:</b>	Shell No.	Railway	Type	Coach No.	Dispatch Date
		8159	NR	LWACCN	192752	30-APR-19

  

<b>11.1 Wheel &amp; Axle Details:</b>									
i.	Bogie No.	196573				196574			
ii.	Frame No.	ECBT-444				ECBT-452			
iii.	Bolster No.	PD-CA-1378				PD-CA-1535			
iv.	Axle No.	RWF - K-5382		RWF - 113315		RWF - M-2370		RWF - K-5653	
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.	917.30	917.30	917.05	917.05	917.00	917.00	917.10	917.10
vii.	Wheel Disc No.	44454- 8RR8-TZ	18454- 7ON1-TZ	40327- 8RR5-TZ	37782- 8RR1-TZ	37783- 8RR1-TZ	18374- 7OK4-TZ	42413- 8RL6-TZ	43505- 8RM3-TZ
viii.	RB Nos.	16349	14361	15863	14250	14639	15669	16538	14512
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.	AVADH-19-02-1210	AVADH-19-02-1243	AVADH-19-02-1241	AVADH-19-02-1182

  

<b>Items traceability:</b>				
<b>11.3</b>	<b>Sno.</b>	<b>Item</b>		<b>Make</b>
	i.	Primary Outer Spring	RSK-19-01	RSK
	ii.	Primary inner Spring	RSK-16-11	RSK
	iii.	Primary Damper	1631, 0820, 2053, 1703	GABRIEL
	iv.	Secondary Damper	8614, 8631	KBI
	v.	Lateral Damper	219605	IAI
	vi.	Brake cylinder & Caliper	7567-691,7550-691, 3763- 691,8540-691	KBI
	vii.	Brake Disc		KBI
	viii.	Contral arm top		HAPL
	ix.	Control arm bottom		HAPL
	x.	Top rubber Pad		GMT
	xi.	Vertical Bump Stop		GMT
	xii.	Ball Joint Control arm		GMT
	xiii.	Lateral Bump stop		GMT
	xiv.	Traction center make		EMSON
	xv.	Traction lever make		JI
	xvi.	Ball joint traction lever		MTC
	xvii.	Traction center elastic		GMT
	xviii.	Secondary rubber pad		NA
	xix.	Rubber spring		NA
	xx.	Anti roll bar make		SARITA
	xxi.	Ball joint roll link		SARITA
	xxii.	Fork make		SARITA

  

<b>11.4</b>	i. Modification/Trail(if any):	NIL
	ii. Deviations (if any):	Deviations (If any): NIL

**LWACCN - 8159**



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

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

TYPE OF COACH : LWACCN      Shell No : 8159      COACH\_NO : 192752

RAILWAY : NR      COUPLING TYPE : CBC      DATE OF FITMENT: 30-APR-19

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	PP-SIDE		
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0	33501427-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR AC NAC COACHES, as per Drawing: RDSO/2011/CG-04 REV.01 with am	RDSO/2011/CG-04 REV.01 with amendment -1 (WITHOUT BRAKE DISC AND EMERGENCY BRAKE CABLE BOX NPZ 1-S OR PASSENGER EMERGENCY PILOT VALVE) AND Dy.CME/D2's LETTER NO. MD46131 DT. 11/06/2015	KNOEE BREMSE INDIA PVT.LTD	0117203438
1	33635080-1, PUMP	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORKPVT LTD.	291181 & 291182
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2419-B-18
0	33640361-0, EMERGENCY BATTERY CHARGER	EDTS163,REV-C,COR-5.	ELECTRO WAVES ELECTRONICS PVT. LTD.	WEBCD 195363 & 195344



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF  
LHB 3 AC END ON GENERATION AIR BRAK**

S.No	PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
<b>Group Name PP-SIDE</b>				
1	33640932-1, GPS BASED P I SYSTEM MBU	RDSO/PE/SPEC/AC/0087,2008,REV-1 & RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
1	33640993-1, PA SYSTEM WITH VOLUME CONTROLLER	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	4548819
2	33640993-2, SPEAKERS	EDTS173,REV-B,COR-2,TYPE-III	AHUJA BY PUNJAB RADIOS	NIL
<b>Group Name NON-PP SIDE</b>				
2	33635080-2, PUMP CONTROLLER	EDTS186,REV-A,AM-2,COR-1&2WITH ANNEX.1.	KALSI METAL WORK PVT.LTD	CPA-1177/06-2018
1	33635237-1, RMPU	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	2428-B-18



RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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Group Name	NON-PP SIDE
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2	33635237-2, MICRO PROCESSOR CONTROLLER	RDSO/PE/SPEC/AC/0061-2005(REV-1)Type1&MICROPROCESSOR TO RDSO/PE/SPEC/AC/0139-2009(REV-1)COMPLETE WITH ACCESS.AS PER SCOPE OF SUPPLY IN THE RDSO SPEC.ALONG WITH MODI.SHEET NO.RDSO/PE/MS/AC/0077-2018,REV0.TYPE-1 FOR LHB & TYPE-1I FOR POWER CAR.	AMIT ENGINEERS	AE-1810917
1	33635330-1, HOT CASE	EDTS139,REV-E,COR-5.	SPECTRUM SCIENTIFIC	SDFR3T093
2	33635330-2, BOTTLE COOLER CUM DEEP FREEZER	EDTS139,REV-E,COR-5.	SPECTRUM SCIENTIFIC	SDFR3T053
2	33640932-2, LCD COMPARTMENT	RDSO/PE/SPEC/AC/0087,2008,REV-1 &RDSO/PE/SK/AC/0182-2014,REV-1(20 SHEETS).PIS SHALL HAVE COMMUNICATION PROTOCOL AS PER RDSO/PE/TP/AC/0026-2015,REV-0. SCOPE OF SUPPLY AS PER CLAUSE 1.2 OF THE PIS SPEC EXCLUDING ITEM NO.1.2.7, 1.2.8, 1.2.10,1.2.11,1.2.12 OF THE CLAUSE,DISPLAY PANEL AS PER SKED713.	NOT PROVIDED	NIL
Group Name UNDER FRAME				
0	33635183-0, 60 KVA TRANSFORMER as per Drg.No. RDSO/PE/SPEC/AC/0080-2007,(REV-1)WITH RDSO LETTER NO EL/7/1/108/TR	RDSO/PE/SPEC/AC/0080-2007,(REV-1),WITH RDSO LETTER NO EL/7/1/108/TRANSFORMER DATED 31/03/15.RCF ANN1.	RAMYAA ELECTRO-GEAR PVT. LTD.	1902-82-44



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

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB 3 AC END ON GENERATION AIR BRAK**

S.No PL No & Item Description	Drawing No	Make	Item Sr.No.(if any)
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**Group Name UNDER FRAME**

0 33635493-0, 5KVA,415/190V,3PHASE DRY TYPE DISTRIBUTION TRANSFORMER, as per Drawing: EDTS366,REV-Nil,COR-2., Pack	EDTS366,REV- Nil,COR-2.	VIMAL TRANSFORME R CORPORATION	VTC-3089-LHB- 613
0 33640178-0, BATTERY FUSE BOX - VE, as per Drawing: LW71002,ALT- J., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71002,ALT-J.	INTEG ELECTRONICS	2018-08-2155
0 33640786-0, BATTERY FUSE BOX +VE, as per Drawing: LW71001,ALT-I., Packing Instruction(PI091 VER2.0): SUITABLY CO	LW71001,ALT-I.	INTEG ELECTRONICS	2018-11-2252
0 33641729-0, 70AH,110V, VRLA MONOBLOCK LEAD ACID MAINTENANCE FREE SET WITH 9MDLS OF 12V EACH PRECHARGED BATTERY(9	RDSO/PE/SPEC/AC/0 009-2014,REV- 2,PRECHARGED.	AMARA RAJA BATTERIES LTD.	09/2018
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 'CR' AND SKED-383 IN DRG.NO. 3 10113.0.76.700.117	GOPAL ENGINEERING WORKS	NIL
1 35982913-1, CAPACITOR BANK FOR LHB EOG POWER CAR COACHES	EDML130,REV- 1,COR-5 ,TYPE-II	INTERNATION AL SWITCHGEAR PVT LTD.	CB-RCF-1811- 0258

**Group Name COMPARTMENT**

1 33641936-1, SWITCH BOARD CABINET	RDSO/PE/SPEC/AC/0 184-2015,REV-0.	HIND RECTIFIER	H018418084
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**Group Name UNDER FRAME PP SIDE**

1 33635067-1, BOGIE 1	EDTS101 ,REV-C,AM- 1,COR-6,RCF ANNEXURE-1	M/S CHANDA & CHANDA	196573
0		HIND RECTIFIERS LIMITED	NIL
0		MAA LAXMI INDUSTRY	NIL

**Group Name UNDER FRAME NPP SIDE**

2 33635067-2, BOGIE 2	EDTS101 ,REV-C,AM- 1,COR-6,RCF ANNEXURE-1	M/S CHANDA & CHANDA	196574
0		MAA LAXMI INDUSTRIES	NIL
0		MAA LAXMI INDUSTRY	NIL



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RAIL COACH FACTORY, KAPURTHALA  
ROLLING STOCK CERTIFICATE (LHB)

FOR ELECTRICAL ITEMS		
ROLLING STOCK CERTIFICATE OF		
LHB 3 AC END ON GENERATION AIR BRAK		
SSE/EL/QC	AME/WM QC/DY CQM I	