



रेल डिब्बा कारखाना, कपूरथला  
Rail Coach Factory , Kapurthala

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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	5022	DISPATCH DATE			22.01.2016	
2.	Railway	NR	Type	LWSCZAC	Coach No.	163152	
3.	Booked to	SSE/C&W/NDLS					
4.	Tare Weight of Coach	40.28 T					
5.	Carrying Capacity	Seating	78	Sleeping	NIL	Luggage	NIL
6.	Shell Details: (LW90023 alt 'a', LE90009 alt 'nil', LD9009 alt 'b')						
	6.1	Leading Dimensions:					
	i)	Maximum length over Body	23700+10/-0 mm				
	ii)	Maximum width over Body	3240-8/+0 mm, 3050 mm (LWSCZDAC)				
	iii)	Max. Height From Rail Level	4250 (LWACCN), 4039 (LWACCW, LS, LWSCN), 4366 (LWSCZDAC)				
	iv)	Buffer/CBC Height	Specified : 1105 +0 /-15 mm	1105	1105		
	v)	Buffer/CBC (Make )	ESCORTS	Fiba Device	NA		
7.	Air Brake Testing:		Description	Specified	Observed		
	7.1	Full Brake Application	Reduce pressure of BP from 5.0 to 3.4 kg/cm <sup>2</sup>	6 –10 sec	6 Sec		
			Max Pressure in BC	3.00 ± 0.15 Kg/cm <sup>2</sup>	3.00		
			All Brake are applied	OK	OK		
	7.2	Insensitivity	Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min	No brake application	OK		
	7.3	Sensitivity	Exhaust BP @ 0.1 kg/cm <sup>2</sup> /Sec, After 02 Sec.	Brake must apply	OK		
8.	PAINTING DEATAILS:		TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE		
	8.1	PAINT	PU PAINT	VIBGYOR	78/86		
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:			Make			
	i.	BRAKE EQUIPMENT		KBI			
	iii.	CDTS		RAIL TECH			
	iv.	SEAT & BERTH		SUKATA			
	v.	BODY SIDE DOORS		SUKATA, JBM			
	vi.	SALOON COMPTT DOORS		KALSI			
	vii.	VESTIBULE SLIDING DOOR		KALSI			
	viii.	WATER TANKS		KUTEER, SHIVALIK			
	ix	UIC VESTIBULE		ESCORTS			
	x	LUGGAGE RACK		RAIL TECH			
	XI	FLOOR BOARD		TAYAL			
	XII	PVC		RESPONSIVE			
10.							
	10.1	Modification / Trail (if any):			NIL		
	10.2	Deviations if any:			NIL		



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11.	<b>Bogie Details:</b>		<b>Shell No.</b>		<b>Railway</b>		<b>Type</b>		<b>Coach No.</b>		<b>Dispatch Date</b>	
			5022		NR		LWSCZAC		163152/C		11-12-2015	
11.1	<b>Wheel &amp; Axle Details:</b>		<b>PP Side</b>						<b>NPP Side</b>			
	i.	<b>Bogie No.</b>	156958						156959			
	ii.	<b>Frame No.</b>	FIAT-4322						FIAT-4483			
	iii.	<b>Bolster No.</b>	3800-GT						5198-P			
	iv.	<b>Axle No.</b>	128511/983		128696/989		114795/376		126828/468			
	v.	<b>Wheel Dia.</b>	916.00	916.00	916.0	916.00	916.00	916.00	916.00	916.00	916.00	916.00
	vi.	<b>Wheel Disc No.</b>	06222-00074	06228-00089	6196-00033	6196-00032	6196-00042	6211-00028	6225-00061	6211-00034		
	vii.	<b>R.B. Nos.</b>	02461	03051	02511	02564	01167	01605	03096	02060		
	viii.	<b>R.B. Make</b>	TIMKEN		TIMKEN		TIMKEN		TIMKEN			
	ix.	<b>RB Type</b>	UIC CARTRIDGE TAPER ROLLER BEARING									
11.2	<b>Secondary suspension load deflection Values:</b>											
<b>Description</b>		<b>Secondary 1</b>		<b>Secondary 2</b>		<b>Secondary 1</b>		<b>Secondary 2</b>				
		<b>Outer</b>	<b>Inner</b>	<b>Outer</b>	<b>Inner</b>	<b>Outer</b>	<b>Inner</b>	<b>Outer</b>	<b>Inner</b>	<b>Outer</b>	<b>Inner</b>	
i.	<b>Make &amp; nos.</b>	DN-13-4-3559	DN-12-6-1413	DN-13-4-3552	DN-12-6-1394	DN-12-6-1874	DN-12-6-1431	DN-12-6-1860	DN-12-6-1390			
ii.	<b>Ht. at test load</b>	507	463	507	463	509	460	508	462			
iii.	<b>Align .deviation</b>	24	3	23	2	13	4	11	4			
11.3	<b>Items traceability:</b>											
	<b>Sno.</b>	<b>Item</b>			<b>PP Side Bogie</b>			<b>NPP side Bogie</b>			<b>Make</b>	
	i.	Primary Outer Spring			RSK-14-5			RSK-14-5			RSK	
	ii.	Primary inner Spring			RSK-14-5			RSK-14-5			RSK	
	iii.	Primary Damper			674,513,504,707			650,522,740,712			GEREP	
	iv.	Secondary damper			1518,1526			1000,1592			GEREP	
	v.	Lateral Damper			91			202			GEREP	
	vi.	Yaw Damper									NIL	
	vii.	Brake cylinder & Caliper			1819/691,1884/691,1822/691,1833/691			1894/691,1954/691,1899/691,1957/691			KBI	
	viii.	Brake Disc									FTI	
	ix.	Ball joint Control arm									GMT	
	x.	Lateral Bump stop									MGN	
	xi.	Traction center make									SARITA	
	xii.	Traction lever make									SARITA	
	xiii.	Ball joint traction lever									MGN	
	xiv.	Traction centre elastic									GMT	
	xv.	Secondary rubber pad									WINLANE	
	xvi.	Rubber spring									GMT	
	xvii.	Anti roll bar make									EMSON	
	xviii.	Ball joint roll link									SARITA	
	xix.	Fork make									EMSON	
11.4	i.	<b>Modification / Trial (if any):</b>										NIL
	ii.	<b>Deviations (if any):</b>										NIL

LWSCZAC-5022



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	5027	DISPATCH DATE				29.01.2016
2.	Railway	NR	Type	LWSCZAC	Coach No.	163153	
3.	Booked to	SSE/C&W/NDLS					
4.	Tare Weight of Coach	40.28 T					
5.	Carrying Capacity	Seating	78	Sleeping	NIL	Luggage	NIL
6.	Shell Details: (LW90023 alt 'a', LE90009 alt 'nil', LD9009 alt 'b')						
	6.1	Leading Dimensions:					
	i)	Maximum length over Body	23700+10/-0 mm				
	ii)	Maximum width over Body	3240-8/+0 mm, 3050 mm (LWSCZDAC)				
	iii)	Max. Height From Rail Level	4250 (LWACCN), 4039 (LWACCW, LS, LWSCN), 4366 (LWSCZDAC)				
	iv)	Buffer/CBC Height	Specified : 1105 +0 /-15 mm	1102	1105		
	v)	Buffer/CBC (Make )	ESCORTS	Fiba Device	NA		
7.	Air Brake Testing:		Description	Specified	Observed		
	7.1	Full Brake Application	Reduce pressure of BP from 5.0 to 3.4 kg/cm <sup>2</sup>	6 –10 sec	6 Sec		
			Max Pressure in BC	3.00 ± 0.15 Kg/cm <sup>2</sup>	3.00		
			All Brake are applied	OK	OK		
	7.2	Insensitivity	Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min	No brake application	OK		
	7.3	Sensitivity	Exhaust BP @ 0.1 kg/cm <sup>2</sup> /Sec, After 02 Sec.	Brake must apply	OK		
8.	PAINTING DEATAILS:		TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE		
	8.1	PAINT	PU PAINT	VIBGYOR	85/87		
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:			Make			
	i.	BRAKE EQUIPMENT		FAIVELEY			
	iii.	CDTS		RAIL TECH			
	iv.	SEAT & BERTH		SUKATA			
	v.	BODY SIDE DOORS		JBM			
	vi.	SALOON COMPTT DOORS		KALSI			
	vii.	VESTIBULE SLIDING DOOR		KALSI			
	viii.	WATER TANKS		KUTEER, SHIVALIK			
	ix	UIC VESTIBULE		ESCORTS			
	x	LUGGAGE RACK		RAIL TECH			
	XI	FLOOR BOARD		TAYAL			
	XII	PVC		RESPONSIVE			
10.							
	10.1	Modification / Trail (if any):			NIL		
	10.2	Deviations if any:			NIL		



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11.	<b>Bogie Details:</b>		Shell No.	Railway	Type	Coach No.	Dispatch Date			
			5027	NR	LWSCZAC	163153/C	10-12-2015			
11.1	<b>Wheel &amp; Axle Details:</b>		PP Side				NPP Side			
	i.	Bogie No.	156946				156948			
	ii.	Frame No.	FIAT-4439				FIAT-4406			
	iii.	Bolster No.	5244-P				5268-P			
	iv.	Axle No.	A-2916		114544/370		129225/992		128960/986	
	v.	Wheel Dia.	915.00	915.0	915.00	915.00	915.00	915.00	915.00	915.00
	vi.	Wheel Disc No.	06228-00130	7172-00044	6207-00160	7172-00075	7172-00102	6228-00040	6228-00115	6211-00067
	vii.	R.B. Nos.	22613	29863	02265	01407	29607	29662	01384	29979
	viii.	R.B. Make	SKF		SKF		SKF		SKF	
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING							
11.2	<b>Secondary suspension load deflection Values:</b>									
<b>Description</b>		Secondary 1		Secondary 2		Secondary 1		Secondary 2		
		Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	
i.	Make & nos.	CMAFJ-15-8-48	DN-12-6-1336	CMAFJ-15-8-1	DN-12-6-1684	RSK-15-3-903	RSK-15-3-434	RSK-15-3-192	RSK-15-3-382	
ii.	Ht. at test load	511	468	511	464	509	466	511	468	
iii.	Align .deviation	15	4	17	8	22	27	25	32	
11.3	<b>Items traceability:</b>									
	Sno.	Item			PP Side Bogie		NPP side Bogie		Make	
	i.	Primary Outer Spring			RSK-14-5		RSK-14-5		RSK	
	ii.	Primary inner Spring			RSK-14-5		RSK-14-5		RSK	
	iii.	Primary Damper			694,750,549,748		816,567,908,812		GEREP	
	iv.	Secondary damper			4562,4629		4557,4241		KONI	
	v.	Lateral Damper			295		18		GEREP	
	vi.	Yaw Damper							NIL	
	vii.	Brake cylinder & Caliper			L15054/600,L15019/600 K15173/600,L15033/600		L15030/600,K150089/600 L15033/600,L15012/600		FTI	
	viii.	Brake Disc							FTI	
	ix.	Ball joint Control arm							GMT	
	x.	Lateral Bump stop							MGN	
	xi.	Traction center make							SARITA	
	xii.	Traction lever make							SARITA	
	xiii.	Ball joint traction lever							MGN	
	xiv.	Traction centre elastic							GMT	
	xv.	Secondary rubber pad							WINLANE	
	xvi.	Rubber spring							GMT	
	xvii.	Anti roll bar make							EMSON	
	xviii.	Ball joint roll link							SARITA	
	xix.	Fork make							EMSON	
11.4	i.	Modification / Trial (if any):					NIL			
	ii.	Deviations (if any):					NIL			



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	5031	DISPATCH DATE				15.01.2016
2.	Railway	NR	Type	LWSCZAC	Coach No.	163151	
3.	Booked to	SSE/C&W/NDLS					
4.	Tare Weight of Coach	40.28 T					
5.	Carrying Capacity	Seating	78	Sleeping	NIL	Luggage	NIL
6.	Shell Details: (LW90023 alt 'a', LE90009 alt 'nil', LD9009 alt 'b')						
6.1	Leading Dimensions:						
i)	Maximum length over Body	23700+10/-0 mm					
ii)	Maximum width over Body	3240-8/+0 mm, 3050 mm (LWSCZDAC)					
iii)	Max. Height From Rail Level	4250 (LWACCN), 4039 (LWACCW, LS, LWSCN), 4366 (LWSCZDAC)					
iv)	Buffer/CBC Height	Specified : 1105 +0 /-15 mm		1105	1105		
v)	Buffer/CBC (Make )	ESCORTS		Fiba Device	NA		
7.	Air Brake Testing:	Description			Specified	Observed	
7.1	Full Brake Application	Reduce pressure of BP from 5.0 to 3.4 kg/cm <sup>2</sup>		6 –10 sec	6 Sec		
		Max Pressure in BC		3.00 ± 0.15 Kg/cm <sup>2</sup>	3.00		
		All Brake are applied		OK	OK		
7.2	Insensitivity	Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min		No brake application	OK		
7.3	Sensitivity	Exhaust BP @ 0.1 kg/cm <sup>2</sup> /Sec, After 02 Sec.		Brake must apply	OK		
8.	PAINTING DEATAILS:	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE			
8.1	PAINT	PU PAINT	VIBGYOR	85/87			
8.2	APPLICATION OF PCN-123	SATISFACTORY					
8.3	INSUALTION	SATISFACTORY					
9.	Traceability of Furnishing Items:					Make	
i.	BRAKE EQUIPMENT				FAIVELEY		
iii.	CDTS				RAIL TECH		
iv.	SEAT & BERTH				SUTLEJ		
v.	BODY SIDE DOORS				SUKATA, JBM		
vi.	SALOON COMPTT DOORS				KALSI		
vii.	VESTIBULE SLIDING DOOR				CP		
viii.	WATER TANKS				KUTEER, SHIVALIK		
ix	UIC VESTIBULE				ESCORTS		
x	LUGGAGE RACK				RAIL TECH		
XI	FLOOR BOARD				NARBADA		
XII	PVC				RESPONSIVE		
10.							
10.1	Modification / Trail (if any):				NIL		
10.2	Deviations if any:				NIL		



रेल डिब्बा कारखाना, कपूरथला

Rail Coach Factory , Kapurthala

11.	<b>Bogie Details:</b>		Shell No.	Railway	Type	Coach No.	Dispatch Date			
			5031	NR	LWSCZAC	163151/C	11-12-2015			
11.1	<b>Wheel &amp; Axle Details:</b>		PP Side				NPP Side			
	i.	Bogie No.	156962				156963			
	ii.	Frame No.	FIAT-4348				FIAT-4495			
	iii.	Bolster No.	5319-VT				5359-P			
	iv.	Axle No.	126820/468	128058/988	126058/475	126470/481				
	v.	Wheel Dia.	915.00	915.00	916.00	916.00	917.00	917.00	916.00	916.00
	vi.	Wheel Disc No.	06220-00121	7172-00012	7166-00046	06228-00048	06228-00199	6207-00024	6225-00141	6192-00119
	vii.	R.B. Nos.	28730	01404	16692	16010	02199	02124	02144	02058
	viii.	R.B. Make	SKF		SKF		TIMKEN		TIMKEN	
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING							
11.2	<b>Secondary suspension load deflection Values:</b>									
<b>Description</b>		Secondary 1		Secondary 2		Secondary 1		Secondary 2		
		Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	
i.	Make & nos.	DN-12-5-1461	DN-12-10-1664	DN-12-5-1639	DN-12-10-1674	DN-12-6-1673	DN-12-6-1371	DN-12-6-1649	DN-12-6-1491	
ii.	Ht. at test load	508	466	509	466	504	463	504	463	
iii.	Align .deviation	21	17	19	13	16	5	13	3	
11.3	<b>Items traceability:</b>									
	Sno.	Item	PP Side Bogie		NPP side Bogie		Make			
	i.	Primary Outer Spring	RSK-14-5		RSK-14-5		RSK			
	ii.	Primary inner Spring	RSK-14-5		RSK-14-5		RSK			
	iii.	Primary Damper	514,710,941,944		791,929,667,716		GEREP			
	iv.	Secondary damper	1569,1587		1552,1520		GEREP			
	v.	Lateral Damper	79		106		GEREP			
	vi.	Yaw Damper					NIL			
	vii.	Brake cylinder & Caliper	L15056/600,L15048/600 K15127/600,L15096/600		H15178/600,H15141/600 H15173/600,H15148/600		FTI			
	viii.	Brake Disc					FTI			
	ix.	Ball joint Control arm					GMT			
	x.	Lateral Bump stop					MGN			
	xi.	Traction center make					SARITA			
	xii.	Traction lever make					SARITA			
	xiii.	Ball joint traction lever					MGN			
	xiv.	Traction centre elastic					GMT			
	xv.	Secondary rubber pad					WINLANE			
	xvi.	Rubber spring					GMT			
	xvii.	Anti roll bar make					EMSON			
	xviii.	Ball joint roll link					SARITA			
	xix.	Fork make					EMSON			
11.4	i.	Modification / Trial (if any):			NIL					
	ii.	Deviations (if any):			NIL					