



रेल डिब्बा कारखाना, कपूरथला  
Rail Coach Factory , Kapurthala

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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	4081	DISPATCH DATE				03.08.2015
2.	Railway	NR	Type	LS3	Coach No.	153521	
3.	Booked to	SSE/C&W/NDLS					
4.	Tare Weight of Coach	40.665 T					
5.	Carrying Capacity	Seating	100	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 )	FAIVELEY	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	ADVANCE	87/88		
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:		Make				
	I	BRAKE EQUIPMENT	FAIVELEY				
	li	SEAT & BERTH	AAR KAY FOAMS				
	lii	BODY SIDE DOORS	JBM				
	lv	WATER TANKS	RAIL FAB				
	v	FLOOR BOARD	TAYAL				
	VI	PVC	RESPONSIVE				
	Vii	LP SHEET	NA				
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			
			4081	NR	LS3	153521/C	22-05-2015			
11.1	<b>Wheel &amp; Axle Details:</b>		PP Side				NPP Side			
	i.	Bogie No.	156383				156384			
	ii.	Frame No.	ECBT-930				ECBT-946			
	iii.	Bolster No.	476330-P				4752			
	iv.	Axle No.	C-4330		C-4164		C-4823		A-2906	
	v.	Wheel Dia.	916.00	915.50	915.50	916.00	915.00	915.50	916.00	916.00
	vi.	Wheel Disc No.	006-63307	226-11611	118-63301	273-63307	361-63307	367-63307	188-63307	176-63307
	vii.	R.B. Nos.	04220	03820	03619	04669	04441	04303	04230	4471
	viii.	R.B. Make	TIMKEN		TIMKEN		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.	G-14-12-054	G-14-12-200	G-14-12-058	G-14-12-169	G-14-12-053	G-14-12-180	G-14-12-118	G-14-12-161	
ii.	Ht. at test load	514	471	515	472	515	470	515	472	
iii.	Align .deviation	2	10	4	10	5	14	5	11	
11.3	<b>Items traceability:</b>									
	Sno.	Item	PP Side Bogie		NPP side Bogie		Make			
	i.	Primary Outer Spring	G-14-3		G-14-3		GF			
	ii.	Primary inner Spring	G-14-3		G-14-3		GF			
	iii.	Primary Damper	24949,24953,24997,24696		24673,24690,24665,24673		KONI			
	iv.	Secondary damper	851,1056		842,1051		GEREP			
	v.	Lateral Damper	3044		3038		KONI			
	vi.	Yaw Damper					NIL			
	vii.	Brake cylinder & Caliper	D15012/600,D15015/600 D15017/600,D15017/600		D15002/600,D15012/600 A15112/600,D15005/600		FTI			
	viii.	Brake Disc					KBI,FTI			
	ix.	Ball joint Control arm					MGN			
	x.	Lateral Bump stop					GMT			
	xi.	Traction center make					SARITA			
	xii.	Traction lever make					SARITA			



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	4078	DISPATCH DATE				31.07.2015
2.	Railway	NR	Type	LS3	Coach No.	153515	
3.	Booked to	SSE/C&W/NDLS					
4.	Tare Weight of Coach	40.665 T					
5.	Carrying Capacity	Seating	100	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 )	FAIVELEY	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	ADVANCE	86/87		
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:		Make				
	I	BRAKE EQUIPMENT	FAIVELEY				
	ii	SEAT & BERTH	AAR KAY FOAMS				
	iii	BODY SIDE DOORS	JBM				
	iv	WATER TANKS	RAIL FAB				
	v	FLOOR BOARD	TAYAL				
	VI	PVC	RESPONSIVE				
	Vii	LP SHEET	NK				
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>		
			4078		NR		LS3		153515/C		16-05-2015		
11.1	<b>Wheel &amp; Axle Details:</b>		<b>PP Side</b>						<b>NPP Side</b>				
	i.	<b>Bogie No.</b>	156367						156368				
	ii.	<b>Frame No.</b>	SCI/FM-158						FIAT-4046				
	iii.	<b>Bolster No.</b>	4770-P						4746-P				
	iv.	<b>Axle No.</b>	128383/991		114168/374		127765/987		C-4591				
	v.	<b>Wheel Dia.</b>	915.00	915.00	916.00	916.00	916.00	916.00	916.00	916.00	916.00		
	vi.	<b>Wheel Disc No.</b>	243-10568	211-11611	063-10582	086-10582	258-10579	067-10582	201-63305	052-63307			
	vii.	<b>R.B. Nos.</b>	04697	03485	04038	04186	03595	03004	04130	04600			
	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>	G-14-11-022	G-14-11-159	G-14-11-053	G-14-11-104	G-14-11-071	G-14-11-106	G-14-11-096	G-14-11-170				
ii.	<b>Ht. at test load</b>	515	471	515	468	516	471	514	470				
iii.	<b>Align .deviation</b>	3	9	3	12	2	8	5	12				
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			G-14-3			G-14-3			GF		
	ii.	Primary inner Spring			G-14-3			G-14-3			GF		
	iii.	Primary Damper			24781,24804,24784,24777			24785,24292,24454,24792			KONI		
	iv.	Secondary damper			281,625			276,862			GEREP		
	v.	Lateral Damper			2889			2862			KONI		
	vi.	Yaw Damper									NIL		
	vii.	Brake cylinder & Caliper			A15025/600,N14032/600, A15052/600,N14029/600			A15025/600,M16012/600, A15014/600,N14017/600			FTI		
	viii.	Brake Disc									FTI,KBI		
	ix.	Ball joint Control arm									MGN		
	x.	Lateral Bump stop									GMT		
	xi.	Traction center make									SARITA		
	xii.	Traction lever make									SARITA		
	xiii.	Ball joint traction lever									MGN		
	xiv.	Traction centre elastic									GMT,MGN		
	xv.	Secondary rubber pad									TESPAK		
	xvi.	Rubber spring									GMT		
	xvii.	Anti roll bar make									EMSON		
	xviii.	Ball joint roll link									SARITA		
	xix.	Fork make									SARITA		
11.4	i.	<b>Modification / Trial (if any):</b>										NIL	
	ii.	<b>Deviations (if any):</b>										NIL	

LS3-4078



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	4048	DISPATCH DATE				01.08.2015
2.	Railway	NR	Type	LS3	Coach No.	153516	
3.	Booked to	SSE/C&W/NDLS					
4.	Tare Weight of Coach	40.665 T					
5.	Carrying Capacity	Seating	100	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	87/87	
8.2	APPLICATION OF PCN-123		SATISFACTORY				
8.3	INSUALTION		SATISFACTORY				
9.	Traceability of Furnishing Items:						Make
I	BRAKE EQUIPMENT						FAIVELEY
ii	SEAT & BERTH						AAR KAY FOAMS
lii	BODY SIDE DOORS						JBM
lv	WATER TANKS						RAIL FAB
v	FLOOR BOARD						TAYAL
VI	PVC						RESPONSIVE
Vii	LP SHEET						NA
10.							
10.1	Modification / Trail (if any):					NIL	
10.2	Deviations if any:					NIL	



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11.	12.	<b>Bogie Details:</b>	<b>Shell No.</b>	<b>Railway</b>	<b>Type</b>	<b>Coach No.</b>	<b>Dispatch Date</b>				
			4048	NR	LS3	153516/C	22-05-2015				
11.1	12.1	<b>Wheel &amp; Axle Details:</b>	<b>PP Side</b>				<b>NPP Side</b>				
		i. <b>Bogie No.</b>	156375				156380				
		ii. <b>Frame No.</b>	FIAT-3939				FIAT-3954				
		iii. <b>Bolster No.</b>	4139-ECBT				4774-P				
		iv. <b>Axle No.</b>	C-4501		C-4640		C-4646		C-4547		
		v. <b>Wheel Dia.</b>	916.00	915.50	916.00	916.00	916.00	916.00	916.00	916.00	
		vi. <b>Wheel Disc No.</b>	356-63307	352-63302	018-10583	192-10533	057-10579	151-63305	292-63307	247-63307	
		vii. <b>R.B. Nos.</b>	04217	03645	04488	04200	03560	04294	04281	03555	
		viii. <b>R.B. Make</b>	TIMKEN		TIMKEN		TIMKEN		TIMKEN		
		ix. <b>RB Type</b>	UIC CARTRIDGE TAPER ROLLER BEARING								
11.2	12.2	<b>Secondary suspension load deflection Values:</b>									
		<b>Description</b>	<b>Description</b>		<b>Secondary 1</b>		<b>Secondary 2</b>		<b>Secondary 1</b>		<b>Secondary 2</b>
					Outer	Inner	Outer	Inner	Outer	Inner	Outer
i.	i.	<b>Make &amp; nos.</b>	G-14-12-075	G-14-12-096	G-14-12-041	G-14-12-142	G-14-12-112	G-14-12-154	G-14-12-073	G-14-12-007	
ii.	ii.	<b>Ht. at test load</b>	513	471	513	469	512	469	513	470	
iii.	iii.	<b>Align .deviation</b>	4	12	4	11	3	10	2	9	
11.3	12.3	<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		G-14-3		G-14-3		GF		
		ii.	Primary inner Spring		G-14-3		G-14-3		GF		
		iii.	Primary Damper		24683,24964,25009,25008		24677,24692,24697,25016		KONI		
		iv.	Secondary damper		1124,1146		895,712		GEREP		
		v.	Lateral Damper		3030		3025		KONI		
		vi.	Yaw Damper						NIL		
		vii.	Brake cylinder & Caliper		N14014/600,N14010/600, N14025/600,N1409/600		D15060/600,D1503/600, D15024/600,D15035/600		FTI		
		viii.	Brake Disc						KBI		
		ix.	Ball joint Control arm						MGN		
		x.	Lateral Bump stop						GMT		
		xi.	Traction center make						SARITA		
		xii.	Traction lever make						SARITA		
		xiii.	Ball joint traction lever						GMT		
		xiv.	Traction centre elastic						GMT		
		xv.	Secondary rubber pad						TESPAK		
		xvi.	Rubber spring						GMT		
		xvii.	Anti roll bar make						EMSON		
		xviii.	Ball joint roll link						SARITA		
		xix.	Fork make						SARITA		
11.4	12.4	i.	<b>Modification / Trial (if any):</b>				NIL				
		ii.	<b>Deviations (if any):</b>				NIL				