



रेल डिब्बा कारखाना, कपूरथला  
Rail Coach Factory , Kapurthala

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रोलिंग स्टॉक प्रमाण-पत्र

ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	6046	DISPATCH DATE			23.01.2017	
2.	Railway	NR	Type	LWLRRM	Coach No.	163991	
3.	Booked to	SSE/C&W/DLI					
4.	Tare Weight of Coach	53.4 T					
5.	Carrying Capacity	Seating	NIL	Sleeping	NIL	Luggage	3.9 T
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	APEX	85		
	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.	SEATS/S&B		AAR KAY FOAMS			
	v.	BODY SIDE DOOR		JBM			
	vi.	VESTIBULE SLIDING DOOR		KALSI			
	vii.	CREW-GEN & GUARD ROOM DOOR		JBM/JBM			
	viii.	WATER TANKS		AMIT			
	ix	FUEL TANK		SHIVALIK			
	x	UIC VESTIBULE		ESCORTS			
	XI	FLOOR BOARD		RESPONSIVE			
	XII	PVC		NARBADA			
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			
			6046	NR	LWLRRM	163991	30-12-2016			
11.1	<b>Wheel &amp; Axle Details:</b>		LPC-I PP Side(Guard )				LPC-II NPP Side (Non guard )			
	i.	Bogie No.	167147				167146			
	ii.	Frame No.	FIAT-5364				SCI/FM-732			
	iii.	Bolster No.	6491-P				6505-P			
	iv.	Axle No.	R-3223		N-0310		K-6401		N-6939	
	v.	Wheel Dia.	917.00	917.00	917.00	917.00	917.00	917.00	917.00	917.00
	vi.	Wheel Disc No.	00107-6109	00147-6138	00028-6108	00087-6132	01648-6QH2	03063-6QH9	00154-6104	00143-6008
	vii.	R.B. Nos.	86444	86370	94644	93974	93909	93887	81591	93698
	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.	FSK-16-9-24	DN-16-5-522	FSK-16-9-27	DN-16-5-497	DN-15-10-2190	DN-16-4-371	DN-15-10-2180	DN-16-4-440	
ii.	Ht. at test load	515	465	513	466	513	468	512	466	
iii.	Align .deviation	8	12	9	13	14	13	12	12	
11.3	<b>Items traceability:</b>									
	Sno.	Item		PP Side Bogie		NPP side Bogie		Make		
	i.	Primary Outer Spring		GBD-16-4		GBD-16-8		GBD		
	ii.	Primary inner Spring		L&S-15-11		L&S-15-11		L&S		
	iii.	Primary Damper		532,494,466,468		467,477,425,465		GABRIEL		
	iv.	Secondary damper		04787,0494		0508,0492		SV		
	v.	Lateral Damper		0216		0069		SV		
	vi.	Yaw Damper						NIL		
	vii.	Brake cylinder & Caliper		K16001/2000,K16038/2000 K16005/2000,K16042/2000		K16054/2000,K16055/2000 K16056/2000,K16046/2000		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						SGA		
	xiv.	Traction centre elastic						SGA		
	xv.	Secondary rubber pad						TECSPAК		
	xvi.	Rubber spring						GMT		
	xvii.	Anti roll bar make						SARITA		
	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.	6045	DISPATCH DATE			23.01.2017	
2.	Railway	NR	Type	LWLRRM	Coach No.	163988	
3.	Booked to	SSE/C&W/DLI					
4.	Tare Weight of Coach	53.4 T					
5.	Carrying Capacity	Seating	NIL	Sleeping	NIL	Luggage	3.9 T
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	1104	1104			
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	APEX	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.	SEATS/S&B			AAR KAY FOAMS			
v.	BODY SIDE DOOR			JVR			
vi.	VESTIBULE SLIDING DOOR			KALSI			
vii.	CREW-GEN & GUARD ROOM DOOR			JBM/JBM			
viii.	WATER TANKS			AMIT			
ix	FUEL TANK			SHIVALIK			
x	UIC VESTIBULE			ESCORTS			
XI	FLOOR BOARD			RESPONSIVE			
XII	PVC			NARBADA			
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			
			6045	NR	LWLRRM	163988	01-12-2016			
11.1	<b>Wheel &amp; Axle Details:</b>		LPC-I PP Side(Guard )				LPC-II NPP Side (Non guard )			
	i.	Bogie No.	167073				167072			
	ii.	Frame No.	FIAT-5335				FIAT-5342			
	iii.	Bolster No.	6426-GT				6422-GT			
	iv.	Axle No.	K-5833		R-3348		R-2471		N-6259	
	v.	Wheel Dia.	916.00	916.00	916.00	916.00	916.00	916.00	917.00	917.00
	vi.	Wheel Disc No.	07028-6QJ4	08443-6QH4	00166-7301	00017-7301	07075-6QJ4	06649-6QH6	00101-7301	00032-7301
	vii.	R.B. Nos.	05525	04994	05640	05225	05529	05345	06222	05649
	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.	DN-13-5-383	DN-16-4-536	DN-15-12-450	DN-13-5-508	DN-16-4-2473	DN-16-4-434	DN-16-4-2356	DN-16-4-383	
ii.	Ht. at test load	509	465	511	464	513	471	514	467	
iii.	Align .deviation	2	14	2	16	14	10	15	12	
11.3	<b>Items traceability:</b>									
	Sno.	Item			PP Side Bogie		NPP side Bogie		Make	
	i.	Primary Outer Spring			GBD-16-8		GBD-16-8		GBD	
	ii.	Primary inner Spring			L&S-15-11		L&S-15-11		L&S	
	iii.	Primary Damper			496,331,470,417		90,699,88,673		GEREP	
	iv.	Secondary damper			0620,0630		0659,0799		SV	
	v.	Lateral Damper			0424		0405		SV	
	vi.	Yaw Damper							NIL	
	vii.	Brake cylinder & Caliper			F16024/2000,F16015/2000 F16020/2000,F16007/2000		F16005/2000,F16011/2000 F16016/2000,F16004/2000		FTI	
	viii.	Brake Disc							FTI	
	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							SGA	
	xiv.	Traction centre elastic							SGA	
	xv.	Secondary rubber pad							TECSPAK	
	xvi.	Rubber spring							GMT	
	xvii.	Anti roll bar make							SARITA	
	xviii.	Ball joint roll link							SARITA	
	xix.	Fork make							EMSON	
11.4	i.	Modification / Trial (if any):					NIL			
	ii.	Deviations (if any):					NIL			

LPC-6045



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	6042	DISPATCH DATE			24.01.2017	
2.	Railway	NR	Type	LWLRRM	Coach No.	163990	
3.	Booked to	SSE/C&W/DLI					
4.	Tare Weight of Coach	53.4 T					
5.	Carrying Capacity	Seating	NIL	Sleeping	NIL	Luggage	3.9 T
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>	Max Pressure in BC	6 -10 sec	6 Sec		
		All Brake are applied		3.00 ± 0.15 Kg/cm <sup>2</sup>	3.00		
7.2	Insensitivity	Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min		OK	OK		
7.3	Sensitivity	Exhaust BP @ 0.1 kg/cm <sup>2</sup> /Sec, After 02 Sec.		No brake application	OK		
				Brake must apply	OK		
8.	PAINTING DEATAILS:	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE			
8.1	PAINT	PU PAINT	APEX	87			
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.	SEATS/S&B				AAR KAY FOAMS		
v.	BODY SIDE DOOR				JVR		
vi.	VESTIBULE SLIDING DOOR				KALSI		
vii.	CREW-GEN & GUARD ROOM DOOR				JBM/JBM		
viii.	WATER TANKS				AMIT		
ix	FUEL TANK				GAURAV		
x	UIC VESTIBULE				ESCORTS		
XI	FLOOR BOARD				RESPONSIVE		
XII	PVC				NARBADA		
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>			
			6042	NR	LWLRRM	163990	11-01-2017			
11.1	<b>Wheel &amp; Axle Details:</b>		<b>LPC-I PP Side(Guard )</b>				<b>LPC-II NPP Side (Non Guard )</b>			
	i.	<b>Bogie No.</b>	176026				176025			
	ii.	<b>Frame No.</b>	SCI/FM-735				FIAT-5371			
	iii.	<b>Bolster No.</b>	6562-P				6551-P			
	iv.	<b>Axle No.</b>	125659/479		S-2956		N-5837		R-3378	
	v.	<b>Wheel Dia.</b>	916.00	916.00	917.00	916.50	916.00	916.00	916.00	916.00
	vi.	<b>Wheel Disc No.</b>	00155-6180	00128-6180	00086-6069	00111-6108	00072-6219	00028-6215	00023-6216	00117-6218
	vii.	<b>R.B. Nos.</b>	93469	93882	99723	99897	87603	87758	85840	88119
	viii.	<b>R.B. Make</b>	SKF		SKF		SKF		SKF	
	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>	
i.	<b>Make &amp; nos.</b>	GBD-16-11-19	RSK-16-1-139	GBD-16-11-13	RSK-16-1-31	RSK-16-10-719	RSK-16-7-536	RSK-16-10-693	RSK-16-7-400	
ii.	<b>Ht. at test load</b>	509	468	511	467	515	470	514	468	
iii.	<b>Align .deviation</b>	9	6	7	3	13	25	14	27	
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			GBD-16-8		GBD-16-8		GBD	
	ii.	Primary inner Spring			L&S-15-11		L&S-15-11		L&S	
	iii.	Primary Damper			405,0370,479,431				GABRIEL	
	iv.	Secondary damper			0351,0317		0201,0335		SV	
	v.	Lateral Damper			0541		0214		SV	
	vi.	Yaw Damper							NIL	
	vii.	Brake cylinder & Caliper			5204/261,K7052/260 5202/261,K7056/260		5201/261,5045/261 5203/261,5047/261		KBI	
	viii.	Brake Disc							FTI	
	ix.	Ball joint Control arm							MGN	
	x.	Lateral Bump stop							GMT	
	xi.	Traction center make							SARITA	
	xii.	Traction lever make							SARITA, AFW	
	xiii.	Ball joint traction lever							SGA	
	xiv.	Traction centre elastic							SGA	
	xv.	Secondary rubber pad							TECSPAK	
	xvi.	Rubber spring							GMT	
	xvii.	Anti roll bar make							SARITA	
	xviii.	Ball joint roll link							SARITA	
	xix.	Fork make							EMSON	
11.4	i.	Modification / Trial (if any):					NIL			
	ii.	Deviations (if any):					NIL			