



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.	5094	DISPATCH DATE			31.5.2016	
2.	Railway	NR	Type	LWLRRM	Coach No.	163872	
3.	Booked to	SSE/C&W/NDLS					
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	1100	1104		
	v)	Buffer/CBC (Make)	FAVELLY	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 ²	6 –10 sec	6 Sec		
			Max Pressure in BC	3.00 ± 0.15 Kg/cm ²	3.00		
			All Brake are applied	OK	OK		
	7.2	Insensitivity	Exhaust BP @ 0.3 kg/cm ² /min	No brake application	OK		
	7.3	Sensitivity	Exhaust BP @ 0.1 kg/cm ² /Sec, After 02 Sec.	Brake must apply	OK		
8.	PAINTING DEATAILS:	TYPE OF PAINT		MAKE	AVERAGE GLOSS VALUE		
	8.1	PAINT	PU PAINT	GS	86		
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:			Make			
	i.	BRAKE EQUIPMENT		KBI			
	iii.	BIO TANK		RAIL TECH			
	iv.	SEATS/S&B		GANDI			
	v.	BODY SIDE DOOR		JBM			
	vi.	VESTIBULE SLIDING DOOR		HANSPAL			
	vii.	CREW-GEN & GUARD ROOM DOOR		JBM/JBM			
	viii.	WATER TANKS		SHIVALIK			
	ix	FUEL TANK		SHIVALIK			
	x	UIC VESTIBULE		ESCORT			
	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.	Bogie Details:		Shell No.	Railway	Type	Coach No.	Dispatch Date			
			5094	NR	LWLRRM	163872	21-05-2016			
11.1	Wheel & Axle Details:		LPC-I PP Side(Guard)				LPC-II NPP Side (Non guard)			
	i.	Bogie No.	166428				166427			
	ii.	Frame No.	FIAT-4807				FM-490			
	iii.	Bolster No.	5788-VT				5807-VT			
	iv.	Axle No.	K-6409		K-3936		K-2856		N-0873	
	v.	Wheel Dia.	917.00	917.00	917.00	916.50	917.00	917.00	916.00	916.00
	vi.	Wheel Disc No.	7291-00064	7305-00222	7277-00170	7277-00077	7283-00190	7291-00131	7274-00194	7291-00034
	vii.	R.B. Nos.	05583	04527	05317	05410	04599	05693	04570	04540
	viii.	R.B. Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING							
11.2	Secondary suspension load deflection Values:									
Description		Secondary 1		Secondary 2		Secondary 1		Secondary 2		
		Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	
i.	Make & nos.	G-15-9-188	G-15-9-073	G-15-9-153	G-15-9-048	DN-15-6-1832	G-15-9-065	DN-15-6-2024	G-15-9-044	
ii.	Ht. at test load	512	469	511	467	512	468	512	468	
iii.	Align .deviation	3	16	3	11	7	8	9	12	
11.3	Items traceability:									
	Sno.	Item	PP Side Bogie		NPP side Bogie		Make			
	i.	Primary Outer Spring	G-15-9		G-15-9		GF			
	ii.	Primary inner Spring	G-15-9		G-15-9		GF			
	iii.	Primary Damper	0411,0537,0599,0568		0465,0453,0556,0624		KNORR			
	iv.	Secondary damper	1533,1090		1446,1463		GEREP			
	v.	Lateral Damper	205		218		GEREP			
	vi.	Yaw Damper					NIL			
	vii.	Brake cylinder & Caliper	K1053/261,K4426/260 K1050/261,K4409/260		K1054/261,K0997/261 K3512/261,K0998/261		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					GMT			
	xiv.	Traction centre elastic					SGA			
	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.	Modification / Trial (if any):			NIL					
	ii.	Deviations (if any):			NIL					

LPC5094



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	5100	DISPATCH DATE			31.5.2016	
2.	Railway	NR	Type	LWLRRM	Coach No.	163874	
3.	Booked to	SSE/C&W/NDLS					
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	1102	1104		
	v)	Buffer/CBC (Make)	FAVELLY	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 ²	6 -10 sec	6 Sec		
			Max Pressure in BC	3.00 ± 0.15 Kg/cm ²	3.00		
			All Brake are applied	OK	OK		
	7.2	Insensitivity	Exhaust BP @ 0.3 kg/cm ² /min	No brake application	OK		
	7.3	Sensitivity	Exhaust BP @ 0.1 kg/cm ² /Sec, After 02 Sec.	Brake must apply	OK		
8.	PAINTING DEATAILS:		TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE		
	8.1	PAINT	PU PAINT	GS	86		
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:		Make				
	i.	BRAKE EQUIPMENT	KBI				
	iii.	BIO TANK	RAIL TECH				
	iv.	SEATS/S&B	GANDI				
	v.	BODY SIDE DOOR	JBM,SUKATA				
	vi.	VESTIBULE SLIDING DOOR	HP				
	vii.	CREW-GEN & GUARD ROOM DOOR	JBM/JBM				
	viii.	WATER TANKS	SHIVALIK,MANOJ				
	ix	FUEL TANK	GAURAV				
	x	UIC VESTIBULE	ESCORT				
	XI	FLOOR BOARD	TAYAL				
	XII	PVC	RESPONSIVE				
	XII	LP SHEET	NK				
10.							
	10.1	Modification / Trail (if any):			NIL		
	10.2	Deviations if any:			NIL		



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11.	Bogie Details:		Shell No.	Railway	Type	Coach No.	Dispatch Date			
			5100	NR	LWLRRM	163874	21-05-2016			
11.1	Wheel & Axle Details:		LPC-I PP Side(Guard)				LPC-II NPP Side (Non guard)			
	i.	Bogie No.	166429				166430			
	ii.	Frame No.	FM-492				FM-493			
	iii.	Bolster No.	5803-VT				5813-VT			
	iv.	Axle No.	K-6385		K-4106		N-0340		N-0605	
	v.	Wheel Dia.	917.00	917.00	917.00	917.00	916.50	916.50	917.00	916.50
	vi.	Wheel Disc No.	6204-00091	07298-00077	7284-00139	7298-00024	7291-00074	7283-00022	07298-00167	7292-00117
	vii.	R.B. Nos.	04697	05590	05245	03792	03768	05259	04561	05023
	viii.	R.B. Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING							
11.2	Secondary suspension load deflection Values:									
Description		Secondary 1		Secondary 2		Secondary 1		Secondary 2		
		Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	
i.	Make & nos.	G-15-9-213	G-15-9-074	G-15-9-211	G-15-9-037	DN-15-6-1860	G-15-9-010	DN-15-6-2056	G-15-9-039	
ii.	Ht. at test load	511	467	511	468	510	469	512	469	
iii.	Align .deviation	7	10	4	14	10	5	12	6	
11.3	Items traceability:									
	Sno.	Item	PP Side Bogie		NPP side Bogie		Make			
	i.	Primary Outer Spring	G-15-9		G-15-9		GF			
	ii.	Primary inner Spring	G-15-9		G-15-9		GF			
	iii.	Primary Damper	0633,0538,0592,0540		0493,0541,0562,0536		KNORR			
	iv.	Secondary damper	1445,1444		1034,1454		GEREP			
	v.	Lateral Damper	256		121		GEREP			
	vi.	Yaw Damper					NIL			
	vii.	Brake cylinder & Caliper	3515/261,K3576/260 3514/261,K3517/260		3433/261,3426/261 3429/261,3425/261		KBI			
	viii.	Brake Disc					FTI			
	ix.	Ball joint Control arm					MGN			
	x.	Lateral Bump stop					MGN			
	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	i.	Modification / Trial (if any):				NIL				
	ii.	Deviations (if any):				NIL				

LWLRRM 5100



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	5089	DISPATCH DATE			9.5.2016	
2.	Railway	NR	Type	LWLRRM	Coach No.	163866	
3.	Booked to	SSE/C&W/NDLS					
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)	FAVELLY	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 ²	6 -10 sec	6 Sec		
			Max Pressure in BC	3.00 ± 0.15 Kg/cm ²	3.00		
			All Brake are applied	OK	OK		
7.2	Insensitivity		Exhaust BP @ 0.3 kg/cm ² /min	No brake application	OK		
7.3	Sensitivity		Exhaust BP @ 0.1 kg/cm ² /Sec, After 02 Sec.	Brake must apply	OK		
8.	PAINTING DEATAILS:		TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE		
8.1	PAINT		PU PAINT	GS	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.	SEATS/S&B			GANDI			
v.	BODY SIDE DOOR			SUKATA			
vi.	VESTIBULE SLIDING DOOR			KALSI			
vii.	CREW-GEN & GUARD ROOM DOOR			JBM /JBM			
viii.	WATER TANKS			SHIVALIK			
ix	FUEL TANK			SHIVALIK			
x	UIC VESTIBULE			KRP			
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.	Bogie Details:		Shell No.	Railway	Type	Coach No.	Dispatch Date			
			5089	NR	LWLRRM	163866/C	31-12-2015			
11.1	Wheel & Axle Details:		LPC-1 PP Side(Guard)				LPC-II NPP Side (Non guard)			
	i.	Bogie No.	157021				157016			
	ii.	Frame No.	FIAT-4409				FIAT-4531			
	iii.	Bolster No.	5400-VT				5391-VT			
	iv.	Axle No.	129159/992	128895/990	125762/473	125865/477				
	v.	Wheel Dia.	916.00	916.00	916.00	916.00	916.00	916.00	916.00	916.00
	vi.	Wheel Disc No.	7282-00099	7273-00085	06230-00063	6228-00046	6221-000175	6221-00149	06230-00084	06230-00187
	vii.	R.B. Nos.	04862	02334	03578	04219	03251	03745	06252	01711
	viii.	R.B. Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING							
11.2	Secondary suspension load deflection Values:									
Description		Secondary 1		Secondary 2		Secondary 1		Secondary 2		
		Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	
i.	Make & nos.	CMFSK-15-11-74	ABOK-15-12-21	CMFSK-15-11-63	ABOK-15-12-22	CMFSK-15-9-17	AFJ-14-9-4	CMFSK-15-9-15	AFJ-14-9-8837	
ii.	Ht. at test load	510	466	511.5	468	512.5	469	514	467	
iii.	Align .deviation	8	8	7	8	10	5	7	5	
11.3	Items traceability:									
	Sno.	Item	PP Side Bogie		NPP side Bogie		Make			
	i.	Primary Outer Spring	GBD-15-6		FSK-15-9		GBD,FSK			
	ii.	Primary inner Spring	FSK-15-6		FSK-15-6		FSK			
	iii.	Primary Damper	1151,1089,1127,498		1085,1116,454,421		GEREP			
	iv.	Secondary damper	531,622		473,474		GEREP			
	v.	Lateral Damper	124		115		GEREP			
	vi.	Yaw Damper					NIL			
	vii.	Brake cylinder & Caliper	K3149/261,K3830/260 3148/261,K4415/260		3154/261,2903/261 3155/261,2904/261		KBI			
	viii.	Brake Disc					KBI			
	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					TESPAK			
	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					

LWLRRM5089



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	5093	DISPATCH DATE			14.5.2016	
2.	Railway	NR	Type	LWLRRM	Coach No.	163867	
3.	Booked to	SSE/C&W/NDLS					
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)	FAVELLY	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 ²	6 –10 sec	6 Sec		
			Max Pressure in BC	3.00 ± 0.15 Kg/cm ²	3.00		
			All Brake are applied	OK	OK		
	7.2	Insensitivity	Exhaust BP @ 0.3 kg/cm ² /min	No brake application	OK		
	7.3	Sensitivity	Exhaust BP @ 0.1 kg/cm ² /Sec, After 02 Sec.	Brake must apply	OK		
8.	PAINTING DEATAILS:	TYPE OF PAINT		MAKE	AVERAGE GLOSS VALUE		
	8.1	PAINT	PU PAINT	GS	86		
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:			Make			
	i.	BRAKE EQUIPMENT		KBI			
	iii.	CDTS/BIOTANK		RAIL TECH			
	iv.	SEATS/S&B		GANDI			
	v.	BODY SIDE DOOR		SUKATA			
	vi.	VESTIBULE SLIDING DOOR		KALSI			
	vii.	CREW-GENERATOR & GUARD ROOM DOOR		JBM /JBM			
	viii.	WATER TANKS		SHIVALIK			
	ix	FUEL TANK		OMAX			
	x	UIC VESTIBULE		KRP			
	XI	FLOOR BOARD		TAYAL			
	XII	PVC		RESPONSIVE			
	XIII	LP SHEET		PL			
10.							
	10.1	Modification / Trail (if any):			NIL		
	10.2	Deviations if any:			NIL		



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11.	Bogie Details:		Shell No.	Railway	Type	Coach No.	Dispatch Date			
			5093	NR	LWLRRM	163867	26-04-2016			
11.1	Wheel & Axle Details:		LPC-I PP Side(Guard)				LPC-II NPP Side (Non guard)			
	i.	Bogie No.	166346				166345			
	ii.	Frame No.	FIAT-4816				FIAT-4132			
	iii.	Bolster No.	5727-VT				5340-P			
	iv.	Axle No.	126113/471		K-3041		K-5871		K-3960	
	v.	Wheel Dia.	917.00	917.00	916.00	916.00	916.00	916.00	917.00	917.00
	vi.	Wheel Disc No.	06150-00070	06150-00023	7289-00071	07289-00028	7272-00036	7304-00121	6204-00175	7304-00123
	vii.	R.B. Nos.	04170	04106	04380	04715	04366	05514	04741	05099
	viii.	R.B. Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING							
11.2	Secondary suspension load deflection Values:									
Description		Secondary 1		Secondary 2		Secondary 1		Secondary 2		
		Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	
i.	Make & nos.	G-15-9-1350	G-15-9-063	G-15-9-122	G-15-9-042	G-15-9-218	G-15-9-089	G-15-9-220	G-15-9-108	
ii.	Ht. at test load	511	465	519	465	513	468	515	471	
iii.	Align .deviation	2	16	3	17	18	5	18	6	
11.3	Items traceability:									
	Sno.	Item		PP Side Bogie		NPP side Bogie		Make		
	i.	Primary Outer Spring		G-15-9		G-15-9		GF		
	ii.	Primary inner Spring		G-15-9		G-15-9		GF		
	iii.	Primary Damper		56,169,352,312		58,338,334,326		GEREP		
	iv.	Secondary damper		105,119		819,123		GEREP		
	v.	Lateral Damper		204		125		GEREP		
	vi.	Yaw Damper						NIL		
	vii.	Brake cylinder & Caliper		3157/261,K4412/260 3156/261,K4418/260		3144/261,2906/261 3145/261,2905/261		KBI		
	viii.	Brake Disc						KBI		
	ix.	Ball joint Control arm						MGN		
	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						SGA		
	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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रोलिंग स्टॉक प्रमाण-पत्र

ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	5090	DISPATCH DATE			7.5.2016	
2.	Railway	NR	Type	LWLRRM	Coach No.	163864	
3.	Booked to	SSE/C&W/NDLS					
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)	FAVELLY	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 ²	6 -10 sec	6 Sec		
			Max Pressure in BC	3.00 ± 0.15 Kg/cm ²	3.00		
			All Brake are applied	OK	OK		
7.2	Insensitivity		Exhaust BP @ 0.3 kg/cm ² /min	No brake application	OK		
7.3	Sensitivity		Exhaust BP @ 0.1 kg/cm ² /Sec, After 02 Sec.	Brake must apply	OK		
8.	PAINTING DEATAILS:		TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE		
8.1	PAINT		PU PAINT	GS	85		
8.2	APPLICATION OF PCN-123		SATISFACTORY				
8.3	INSUALTION		SATISFACTORY				
9.	Traceability of Furnishing Items:			Make			
i.	BRAKE EQUIPMENT			KBI			
iii.	CDTS/BIOTANK			RAIL TECH			
iv.	SEATS/S&B			GANDI			
v.	BODY SIDE DOOR			SUKATA			
vi.	VESTIBULE SLIDING DOOR			KALSI			
vii.	CREW-GENERATOR & GUARD ROOM DOOR			JBM /JBM			
viii.	WATER TANKS			SHIVALIK			
ix	FUEL TANK			OMAX			
x	UIC VESTIBULE			KRP			
XI	FLOOR BOARD			TAYAL			
XII	PVC			POLYMER/RESPONSIVE			
XIII	LP SHEET			NK			
10.							
10.1	Modification / Trail (if any):				NIL		
10.2	Deviations if any:				NIL		



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11.	Bogie Details:		Shell No.		Railway		Type		Coach No.		Dispatch Date	
			5090		NR		LWLRRM		163864		25-04-2016	
11.1	Wheel & Axle Details:		LPC-I PP Side(Guard)					LPC-II NPP Side (Non guard)				
	i.	Bogie No.	166335					166336				
	ii.	Frame No.	FIAT-4435					FIAT-3905				
	iii.	Bolster No.	4504-GT					5649-VT				
	iv.	Axle No.	126852/470		126029/475			N-0304		N-0338		
	v.	Wheel Dia.	916.00	916.00	916.00	916.00	916.00	916.00	916.00	916.00	916.00	
	vi.	Wheel Disc No.	7277-00026	6204-00159	7272-00181	7272-00119	7292-00115	7291-00135	7305-00144	07302-00127		
	vii.	R.B. Nos.	02175	02228	03408	03066	04013	05309	03901	04041		
	viii.	R.B. Make	TIMKEN		TIMKEN			TIMKEN		TIMKEN		
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING									
11.2	Secondary suspension load deflection Values:											
Description		Secondary 1		Secondary 2		Secondary 1		Secondary 2				
		Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner			
i.	Make & nos.	G-15-9-137	G-15-9-011	G-15-9-136	G-15-9-087	G-15-9-202	G-15-9-114	G-15-9-272	G-15-9-112			
ii.	Ht. at test load	511	468	510	467	512	468	514	470			
iii.	Align .deviation	9	20	7	13	17	4	19	6			
11.3	Items traceability:											
	Sno.	Item			PP Side Bogie			NPP side Bogie			Make	
	i.	Primary Outer Spring			G-15-9			G-15-9			GF	
	ii.	Primary inner Spring			G-15-9			G-15-9			GF	
	iii.	Primary Damper			1568,1242,1035,1192			184,212,308,220			GEREP	
	iv.	Secondary damper			805,686			799,667			GEREP	
	v.	Lateral Damper			166			150			GEREP	
	vi.	Yaw Damper									NIL	
	vii.	Brake cylinder & Caliper			3118/261,K3831/260 3117/261,K4413/260			3147/261,2908/261 3146/261,2907/261			KBI	
	viii.	Brake Disc									FTI	
	ix.	Ball joint Control arm									MGN,GMT	
	x.	Lateral Bump stop									GMT	
	xi.	Traction center make									SARITA, EMSON	
	xii.	Traction lever make									SARITA	
	xiii.	Ball joint traction lever									MGN,GMT	
	xiv.	Traction centre elastic									SGA	
	xv.	Secondary rubber pad									WINLANE	
	xvi.	Rubber spring									GMT	
	xvii.	Anti roll bar make									EMSON	
	xviii.	Ball joint roll link									SARITA	
	xix.	Fork make									SARITA ,EMSON	
11.4	i.	Modification / Trial (if any):									NIL	
	ii.	Deviations (if any):									NIL	

LWLRRM 5090



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	5092	DISPATCH DATE			24.5.2016	
2.	Railway	NR	Type	LWLRRM	Coach No.	163868	
3.	Booked to	SSE/C&W/NDLS					
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)	FAVELLY	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 ²	6 –10 sec	6 Sec		
			Max Pressure in BC	3.00 ± 0.15 Kg/cm ²	3.00		
			All Brake are applied	OK	OK		
	7.2	Insensitivity	Exhaust BP @ 0.3 kg/cm ² /min	No brake application	OK		
	7.3	Sensitivity	Exhaust BP @ 0.1 kg/cm ² /Sec, After 02 Sec.	Brake must apply	OK		
8.	PAINTING DEATAILS:	TYPE OF PAINT		MAKE	AVERAGE GLOSS VALUE		
	8.1	PAINT	PU PAINT	GS	85		
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:			Make			
	i.	BRAKE EQUIPMENT		KBI			
	iii.	BIO TANK		RAIL TECH			
	iv.	SEATS/S&B		GANDI			
	v.	BODY SIDE DOOR		SUKATA			
	vi.	VESTIBULE SLIDING DOOR		KALSI			
	vii.	CREW-GEN & GUARD ROOM DOOR		JBM/JBM			
	viii.	WATER TANKS		SHIVALIK			
	ix	FUEL TANK		OMAX			
	x	UIC VESTIBULE		KRP			
	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.	Bogie Details:		Shell No.		Railway		Type		Coach No.		Dispatch Date	
			5092		NR		LWLRRM		163868		26-04-2016	
11.1	Wheel & Axle Details:		LPC-I PP Side(Guard)					LPC-II NPP Side (Non guard)				
	i.	Bogie No.	166348					166347				
	ii.	Frame No.	FIAT-4725					FIAT-4794				
	iii.	Bolster No.	5729-VT					5243-P				
	iv.	Axle No.	K-6807		N-1077			126573/481		K-3343		
	v.	Wheel Dia.	917.00	917.00	917.00	917.00	916.00	916.00	916.00	916.00	916.00	916.00
	vi.	Wheel Disc No.	7298-00005	7271-00001	7279-00034	7204-00128	7272-00131	7272-00070	7280-00164	7283-00018	7283-00018	7283-00018
	vii.	R.B. Nos.	04836	04604	04775	05173	04513	05429	03071	04631	04631	04631
	viii.	R.B. Make	TIMKEN		TIMKEN			TIMKEN		TIMKEN		
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING									
11.2	Secondary suspension load deflection Values:											
Description		Secondary 1		Secondary 2		Secondary 1		Secondary 2				
		Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner			
i.	Make & nos.	G-15-9-134	G-15-9-064	G-15-9-206	G-15-9-062	G-15-9-196	G-15-9-092	G-15-9-283	G-15-9-103			
ii.	Ht. at test load	511	465	512	466	514	470	513	471			
iii.	Align .deviation	4	21	3	19	18	5	19	7			
11.3	Items traceability:											
	Sno.	Item			PP Side Bogie		NPP side Bogie		Make			
	i.	Primary Outer Spring			G-15-9		G-15-9		GF			
	ii.	Primary inner Spring			G-15-9		G-15-9		GF			
	iii.	Primary Damper			173,1302,54,203		1251,1053,1564,1365		GEREP			
	iv.	Secondary damper			514,711		14,418		GEREP			
	v.	Lateral Damper			199		210		GEREP			
	vi.	Yaw Damper							NIL			
	vii.	Brake cylinder & Caliper			3468/261,K4561/260 3466/261,K5400/260		3458/261,2910/261 3457/261,2909/261		KBI			
	viii.	Brake Disc							KBI			
	ix.	Ball joint Control arm							MGN,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							SGA			
	xv.	Secondary rubber pad							WINLANE			
	xvi.	Rubber spring							GMT			
	xvii.	Anti roll bar make							EMSON			
	xviii.	Ball joint roll link							SARITA			
	xix.	Fork make							SARITA			
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.	5097	DISPATCH DATE			27.5.2016	
2.	Railway	NR	Type	LWLRRM	Coach No.	163870	
3.	Booked to	SSE/C&W/NDLS					
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)	FAVELLY	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 ²	6 -10 sec	6 Sec		
			Max Pressure in BC	3.00 ± 0.15 Kg/cm ²	3.00		
			All Brake are applied	OK	OK		
7.2	Insensitivity		Exhaust BP @ 0.3 kg/cm ² /min	No brake application	OK		
7.3	Sensitivity		Exhaust BP @ 0.1 kg/cm ² /Sec, After 02 Sec.	Brake must apply	OK		
8.	PAINTING DEATAILS:		TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE		
8.1	PAINT		PU PAINT	GS	86		
8.2	APPLICATION OF PCN-123		SATISFACTORY				
8.3	INSUALTION		SATISFACTORY				
9.	Traceability of Furnishing Items:			Make			
i.	BRAKE EQUIPMENT			KBI			
iii.	BIO TANK			RAIL TECH			
iv.	SEATS/S&B			GANDI			
v.	BODY SIDE DOOR			SUKATA			
vi.	VESTIBULE SLIDING DOOR			KALSI			
vii.	CREW-GEN & GUARD ROOM DOOR			JBM/JBM			
viii.	WATER TANKS			SHIVALIK			
ix	FUEL TANK			SHIVAIK			
x	UIC VESTIBULE			ESCORT			
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.	Bogie Details:		Shell No.		Railway		Type		Coach No.		Dispatch Date	
			5097		NR		LWLRRM		163870		26-04-2016	
11.1	Wheel & Axle Details:		LPC-I PP Side(Guard)					LPC-II NPP Side (Non guard)				
	i.	Bogie No.	166340					166339				
	ii.	Frame No.	FIAT-4730					FIAT-4642				
	iii.	Bolster No.	5710-VT					5712-VT				
	iv.	Axle No.	K-5809		N-0598			K-5846		K-3904		
	v.	Wheel Dia.	916.00	916.00	916.50	916.00	916.00	916.00	916.00	916.00	916.00	916.00
	vi.	Wheel Disc No.	7304-00022	7279-00044	7283-00091	7274-00024	7299-00032	7275-00113	7271-00205	7279-00155		
	vii.	R.B. Nos.	05411	02867	04352	04528	03290	03941	02069	04288		
	viii.	R.B. Make	TIMKEN		TIMKEN			TIMKEN		TIMKEN		
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING									
11.2	Secondary suspension load deflection Values:											
	Description		Secondary 1		Secondary 2		Secondary 1		Secondary 2			
			Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
i.	Make & nos.	G-15-9-135	G-15-9-055	G-15-9-138	G-15-9-043	G-15-9-224	G-15-9-003	G-15-9-219	G-15-9-004			
ii.	Ht. at test load	510	467	510	467	512	471	514	470			
iii.	Align .deviation	7	10	6	10	17	12	16	9			
11.3	Items traceability:											
	Sno.	Item			PP Side Bogie			NPP side Bogie			Make	
	i.	Primary Outer Spring			G-15-9			G-15-9			GF	
	ii.	Primary inner Spring			G-15-9			G-15-9			GF	
	iii.	Primary Damper			1236,1317,216,1185			1387,109,180,321			GEREP	
	iv.	Secondary damper			774,665			864,791			GEREP	
	v.	Lateral Damper			70			66			GEREP	
	vi.	Yaw Damper									NIL	
	vii.	Brake cylinder & Caliper			3158/261,K3590/260 3159/261,K3593/260			3445/261,3415/261 3467/261,3416/261			KBI	
	viii.	Brake Disc									KBI	
	ix.	Ball joint Control arm									MGN	
	x.	Lateral Bump stop									MGN	
	xi.	Traction center make									SARITA	
	xii.	Traction lever make									SARITA	
	xiii.	Ball joint traction lever									GMT	
	xiv.	Traction centre elastic									SGA	
	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, SARITA	
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.	5099	DISPATCH DATE			30.5.2016	
2.	Railway	NR	Type	LWLRRM	Coach No.	163871	
3.	Booked to	SSE/C&W/NDLS					
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	1105		
v)	Buffer/CBC (Make)	FAVELLY		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 ²		6 -10 sec	6 Sec	
			Max Pressure in BC		3.00 ± 0.15 Kg/cm ²	3.00	
			All Brake are applied		OK	OK	
7.2	Insensitivity		Exhaust BP @ 0.3 kg/cm ² /min		No brake application	OK	
7.3	Sensitivity		Exhaust BP @ 0.1 kg/cm ² /Sec, After 02 Sec.		Brake must apply	OK	
8.	PAINTING DEATAILS:		TYPE OF PAINT		MAKE	AVERAGE GLOSS VALUE	
8.1	PAINT		PU PAINT		GS	86	
8.2	APPLICATION OF PCN-123		SATISFACTORY				
8.3	INSUALTION		SATISFACTORY				
9.	Traceability of Furnishing Items:		Make				
i.	BRAKE EQUIPMENT			KBI			
iii.	BIO TANK			RAIL TECH			
iv.	SEATS/S&B			GANDI			
v.	BODY SIDE DOOR			SUKATA/JBM			
vi.	VESTIBULE SLIDING DOOR			HANSPAL			
vii.	CREW-GEN & GUARD ROOM DOOR			JBM/JBM			
viii.	WATER TANKS			MANOJ,SHIVALIK			
ix	FUEL TANK			GAURAV			
x	UIC VESTIBULE			ESCORT			
XI	FLOOR BOARD			TAYAL			
XII	PVC			RESPONSIVE			
10.	Modification / Trail (if any):					NIL	
10.1	Deviations if any:					NIL	
10.2							



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11.	Bogie Details:		Shell No.		Railway		Type		Coach No.		Dispatch Date	
			5099		NR		LWLRRM		163871		26-04-2016	
11.1	Wheel & Axle Details:		LPC-I PP Side(Guard)					LPC-II NPP Side (Non guard)				
	i.	Bogie No.	166338					166337				
	ii.	Frame No.	FIAT-4288					FIAT-4805				
	iii.	Bolster No.	5721-VT					5450-P				
	iv.	Axle No.	K-4041		C-4515			N-0566		K-6659		
	v.	Wheel Dia.	916.00	916.00	916.00	916.00	916.00	916.00	917.00	917.00		
	vi.	Wheel Disc No.	7291-00115	7305-00208	7298-00098	7305-00172	7302-00172	7283-00012	7298-00040	7283-00164		
	vii.	R.B. Nos.	04688	05167	05193	03050	05498	05527	04265	04558		
	viii.	R.B. Make	TIMKEN		TIMKEN			TIMKEN		TIMKEN		
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING									
11.2	Secondary suspension load deflection Values:											
	Description		Secondary 1		Secondary 2		Secondary 1		Secondary 2			
			Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
i.	Make & nos.	G-15-9-145	G-15-9-071	G-15-9-124	G-15-9-039	G-15-9-237	G-15-9-083	G-15-9-207	G-15-9-013			
ii.	Ht. at test load	511	465	510	467	514	468	515	467			
iii.	Align .deviation	10	21	11	23	12	2	14	4			
11.3	Items traceability:											
	Sno.	Item			PP Side Bogie			NPP side Bogie			Make	
	i.	Primary Outer Spring			G-15-9			G-15-9			GF	
	ii.	Primary inner Spring			G-15-9			G-15-9			GF	
	iii.	Primary Damper			189,315,317,327			174,336,168,219			GEREP	
	iv.	Secondary damper			466,801			687,468			GEREP	
	v.	Lateral Damper			131			178			GEREP	
	vi.	Yaw Damper									NIL	
	vii.	Brake cylinder & Caliper			3477/260,K3585/261 3476/261,K3583/260			3474/261,3419/261 3475/261,3424/261			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									GMT	
	xiv.	Traction centre elastic									SGA	
	xv.	Secondary rubber pad									WINLANE	
	xvi.	Rubber spring									GMT	
	xvii.	Anti roll bar make									EMSON	
	xviii.	Ball joint roll link									SARITA	
	xix.	Fork make									SARITA	
11.4	i.	Modification / Trial (if any):						NIL				
	ii.	Deviations (if any):						NIL				

LWLRRM 5099



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.	5074	DISPATCH DATE				14.07.2016
2.	Railway	NR	Type	LWLRRM	Coach No.	163873	
3.	Booked to	SSE/C&W/NDLS					
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)	ESCORT	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 ²	6 -10 sec	6 Sec		
			Max Pressure in BC	3.00 ± 0.15 Kg/cm ²	3.00		
			All Brake are applied	OK	OK		
	7.2	Insensitivity	Exhaust BP @ 0.3 kg/cm ² /min	No brake application	OK		
	7.3	Sensitivity	Exhaust BP @ 0.1 kg/cm ² /Sec, After 02 Sec.	Brake must apply	OK		
8.	PAINTING DEATAILS:		TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE		
	8.1	PAINT	PU PAINT	GS	86		
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:		Make				
	i.	BRAKE EQUIPMENT	KBI				
	iii.	BIOTANK	RAIL TECH				
	iv.	SEATS/S&B	ARR KAYEE				
	v.	BODY SIDE DOOR	JBM				
	vi.	VESTIBULE SLIDING DOOR	KALSI				
	vii.	CREW-GEN & GUARD ROOM DOOR	JBM /JBM				
	viii.	WATER TANKS	SHIVALIK				
	ix	FUEL TANK	SHIVALIK				
	x	UIC VESTIBULE	KRP				
	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.	Bogie Details:		Shell No.		Railway		Type		Coach No.		Dispatch Date	
			5074		NR		LWLRRM		163873		30-04-2016	
11.1	Wheel & Axle Details:		LPC-I PP Side(Guard)					LPC-II NPP Side (Non guard)				
	i.	Bogie No.	166370					166367				
	ii.	Frame No.	FIAT-4247					FIAT-4266				
	iii.	Bolster No.	5720-VT					5745-VT				
	iv.	Axle No.	N-0703		Z-3569			H-3154		K-3856		
	v.	Wheel Dia.	916.00	916.00	916.00	916.00	916.00	916.00	916.00	916.00	916.00	
	vi.	Wheel Disc No.	7280-00037	7283-00016	7278-00059	7272-00109	7303-00033	7272-00067	7275-00106	7299-00031		
	vii.	R.B. Nos.	03626	05468	06176	01298	04231	01128	02986	01444		
	viii.	R.B. Make	TIMKEN		TIMKEN			TIMKEN		TIMKEN		
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING									
11.2	Secondary suspension load deflection Values:											
Description		Secondary 1		Secondary 2		Secondary 1		Secondary 2				
		Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner			
i.	Make & nos.	G-15-9-149	G-15-9-040	G-15-9-152	G-15-9-057	DN-15-1-1934	G-15-9-096	DN-15-1-1962	G-15-9-082			
ii.	Ht. at test load	511	466	512	466	514	467	512	471			
iii.	Align .deviation	19	19	17	18	11	5	12	6			
11.3	Items traceability:											
	Sno.	Item			PP Side Bogie			NPP side Bogie			Make	
	i.	Primary Outer Spring			GBD-14-5			GBD-14-5			GBD	
	ii.	Primary inner Spring			FSK-15-6			FSK-15-6			FSK	
	iii.	Primary Damper			24318,24309,13842,24503			23799,23808,24315,24657			KONI	
	iv.	Secondary damper			828,809			775,497			GEREP	
	v.	Lateral Damper			215			161			GEREP	
	vi.	Yaw Damper									NIL	
	vii.	Brake cylinder & Caliper			3434/261,K3591/260 3459/261,K3492/260			3460/261,3412/261, 3463/261,3411/261			KBI	
	viii.	Brake Disc									KBI	
	ix.	Ball joint Control arm									MGN	
	x.	Lateral Bump stop									MGN	
	xi.	Traction center make									EMSON	
	xii.	Traction lever make									SARITA	
	xiii.	Ball joint traction lever									SGA	
	xiv.	Traction centre elastic									SGA	
	xv.	Secondary rubber pad									TESPAK	
	xvi.	Rubber spring									GMT	
	xvii.	Anti roll bar make									EMSON	
	xviii.	Ball joint roll link									SARITA,JVR	
	xix.	Fork make									SARITA	
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.	5096	DISPATCH DATE			9.5.2016	
2.	Railway	NR	Type	LWLRRM	Coach No.	163865	
3.	Booked to	SSE/C&W/NDLS					
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)	FAVELLY	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 ²	Max Pressure in BC	6 -10 sec	6 Sec		
		All Brake are applied		3.00 ± 0.15 Kg/cm ²	3.00		
7.2	Insensitivity	Exhaust BP @ 0.3 kg/cm ² /min		OK	OK		
7.3	Sensitivity	Exhaust BP @ 0.1 kg/cm ² /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	GS	85			
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				GANDI		
v.	BODY SIDE DOOR				SUKATA		
vi.	VESTIBULE SLIDING DOOR				KALSI		
vii.	CREW-GEN & GUARD ROOM DOOR				CONCEPT/JBM		
viii.	WATER TANKS				SHIVALIK		
ix	FUEL TANK				OMAX		
x	UIC VESTIBULE				KRP		
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.	Bogie Details:		Shell No.	Railway	Type	Coach No.	Dispatch Date			
			5096	NR	LWLRRM	153865	18-01-2016			
11.1	Wheel & Axle Details:		LPC-1 PP Side(Guard)				LPC-II NPP Side (Non guard)			
	i.	Bogie No.	166058				166059			
	ii.	Frame No.	FIAT-4378				SCI/FM-178			
	iii.	Bolster No.	5422-VT				5444-VT			
	iv.	Axle No.	126587/480	128120/981	125771/473	127980/988				
	v.	Wheel Dia.	916.00	916.00	916.00	916.00	916.00	916.00	916.00	916.00
	vi.	Wheel Disc No.	6210-00109	7227-00010	7290-00006	6210-00059	6223-00048	7282-0002	7282-00191	7282-00015
	vii.	R.B. Nos.	34166	38795	34024	05820	02201	34033	02395	34012
	viii.	R.B. Make	SKF		SKF		SKF		SKF	
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING							
11.2	Secondary suspension load deflection Values:									
Description		Secondary 1		Secondary 2		Secondary 1		Secondary 2		
		Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	
i.	Make & nos.	CMAFJ-15-12-9	CMAFJ-15-12-28	CMAFJ-15-12-8	CMAFJ-15-12-8	CMAFJ-15-12-11	CMAFJ-15-12-21	CMAFJ-15-12-15	CMAFJ-15-12-24	
ii.	Ht. at test load	512	468	510	468	510	471	511	471	
iii.	Align .deviation	4	15	5	20	10	7	12	8	
11.3	Items traceability:									
	Sno.	Item	PP Side Bogie		NPP side Bogie		Make			
i.		Primary Outer Spring	G-15-9		G-15-9		GF			
ii.		Primary inner Spring	G-15-9		G-15-9		GF			
iii.		Primary Damper	1069,1384,1427,1433		1425,1388,291,231		GEREP			
iv.		Secondary damper	4867,4854		4258,4132		KONI			
v.		Lateral Damper	575		66		GEREP			
vi.		Yaw Damper					NIL			
vii.		Brake cylinder & Caliper	3153/261,K4416/260 3152/261,K4417/260		J3252/261,J5348/261 J3260/261,J5449/261		KBI			
viii.		Brake Disc					KBI			
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					SGA,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	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.	5073	DISPATCH DATE			31.5.2016	
2.	Railway	NR	Type	LWLRRM	Coach No.	163869	
3.	Booked to	SSE/C&W/NDLS					
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)	ESCORT	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 ²	6 -10 sec	6 Sec		
			Max Pressure in BC	3.00 ± 0.15 Kg/cm ²	3.00		
			All Brake are applied	OK	OK		
	7.2	Insensitivity	Exhaust BP @ 0.3 kg/cm ² /min	No brake application	OK		
	7.3	Sensitivity	Exhaust BP @ 0.1 kg/cm ² /Sec, After 02 Sec.	Brake must apply	OK		
8.	PAINTING DEATAILS:		TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE		
	8.1	PAINT	PU PAINT	GS	85		
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:		Make				
	i.	BRAKE EQUIPMENT	KBI				
	iii.	BIO TANK	RAIL TECH				
	iv.	SEATS/S&B	GANDI				
	v.	BODY SIDE DOOR	JBM,				
	vi.	VESTIBULE SLIDING DOOR	HANSPAL				
	vii.	CREW-GEN & GUARD ROOM DOOR	JBM/JBM				
	viii.	WATER TANKS	SHIVALIK,MANOJ				
	ix	FUEL TANK	GAURAV				
	x	UIC VESTIBULE	ESCORT				
	XI	FLOOR BOARD	TAYAL				
	XII	PVC	RESPONSIVE				
	XII	LP SHEET					
10.							
	10.1	Modification / Trail (if any):			NIL		
	10.2	Deviations if any:			NIL		



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11.	Bogie Details:		Shell No.		Railway		Type		Coach No.		Dispatch Date	
			5073		NR		LWLRRM		163869		27-04-2016	
11.1	Wheel & Axle Details:		LPC-I PP Side(Guard)					LPC-II NPP Side (Non guard)				
	i.	Bogie No.	166356					166355				
	ii.	Frame No.	FIAT-4818					FIAT-4271				
	iii.	Bolster No.	5716-VT					5711-VT				
	iv.	Axle No.	K-3354		N-0451			127956/988		127808/987		
	v.	Wheel Dia.	916.00	916.00	916.00	916.00	916.00	916.00	916.00	916.00	916.00	
	vi.	Wheel Disc No.	7271-00170	7271-00191	7299-00182	07302-00179	7270-00022	6204-00110	7216-00079	6227-00190		
	vii.	R.B. Nos.	05257	03261	03891	05200	02548	01810	01768	01351		
	viii.	R.B. Make	TIMKEN		TIMKEN			TIMKEN		TIMKEN		
	ix.	RB Type	UIC CARTRIDGE TAPER ROLLER BEARING									
11.2	Secondary suspension load deflection Values:											
Description		Secondary 1		Secondary 2		Secondary 1		Secondary 2				
		Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner			
i.	Make & nos.	G-15-9-140	G-15-9-035	G-15-9-147	G-15-9-050	G-15-9-205	G-15-9-063	G-15-9-197	G-15-9-020			
ii.	Ht. at test load	509	466	509	465	514	467	512	468			
iii.	Align .deviation	10	13	8	13	15	4	14	4			
11.3	Items traceability:											
	Sno.	Item			PP Side Bogie		NPP side Bogie		Make			
	i.	Primary Outer Spring			G-15-9		G-15-9		GF			
	ii.	Primary inner Spring			G-15-9		G-15-9		GF			
	iii.	Primary Damper			1558,5,1252,190		213,40,8,335		GEREP			
	iv.	Secondary damper			195,204		842,511		GEREP			
	v.	Lateral Damper			213		211		GEREP			
	vi.	Yaw Damper							NIL			
	vii.	Brake cylinder & Caliper			3465/261,3462/260 K3584/261,K3582/260		3461/261,3413/261 3469/261,3414/261		KBI			
	viii.	Brake Disc							KBI			
	ix.	Ball joint Control arm							MGN			
	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							SGA			
	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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