



रेल डिब्बा कारखाना, कपूरथला  
Rail Coach Factory , Kapurthala

Page 1 of 3

ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	4021	DISPATCH DATE			19.02.2015	
2.	Railway	SCR	Type	LWFAC	Coach No.	14002	
3.	Booked to	SSE/C&W/BZA					
4.	Tare Weight of Coach	43.6 T					
5.	Carrying Capacity	Seating	24	Sleeping	24	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	1103	1105			
v)	Buffer/CBC (Make )	ESCORTS	Fiba Device	NIL			
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	88/87			
8.2	APPLICATION OF PCN-123	SATISFACTORY					
8.3	INSUALTION	SATISFACTORY					
9.	Traceability of Furnishing Items:				Make		
i.	BRAKE EQUIPMENT				KBI		
ii.	CDTS/ BIO TOILET				STONE INDIA		
iii.	SEATS/ BERTHS				AAR KAY FOAMS		
iv.	BODY SIDE DOOR				KALSI		
v.	VESTIBULE SLIDING DOOR				KALSI		
vi.	SALOON DOOR				JBM		
vii.	WATER TANKS				AMIT, SHIVALIK		
viii.	UIC VESTIBULE				CEMCON		
ix	FLOOR BOARD				NARBADA		
x	PVC FLOORING				RESPONSIVE		
10.							
i	Modification / Trail (if any):						NIL
ii	Deviations if any:						NIL



**रेल डिब्बा कारखाना, कपूरथला**  
Rail Coach Factory , Kapurthala

<b>12.</b>	<b>Bogie Details:</b>		<b>Shell No.</b>	<b>Railway</b>	<b>Type</b>	<b>Coach No.</b>	<b>Dispatch Date</b>			
			4021	SCR	LWFAC	14002	09-12-2014			
<b>12.1</b>	<b>Wheel &amp; Axle Details:</b>		<b>PP Side</b>				<b>NPP Side</b>			
	i.	<b>Bogie No.</b>	147002				147003			
	ii.	<b>Frame No.</b>	FIAT-3611				FIAT-3585			
	iii.	<b>Bolster No.</b>	4190-GT				4136-ECBT			
	iv.	<b>Axle No.</b>	128903/990		128981/986		126208/471		129266/982	
	v.	<b>Wheel Dia.</b>	915.00	915.00	915.00	915.00	915.00	915.00	915.00	915.00
	vi.	<b>Wheel Disc No.</b>	066-51908	354-11603	158-51077	226-51916	164-51910	297-51915	116-51912	237-11610
	vii.	<b>R.B. Nos.</b>	36647	36164	36514	36198	36339	36209	32004	36206
	viii.	<b>R.B. Make</b>	SKF		SKF		SKF		SKF	
	ix.	<b>RB Type</b>	UIC CARTRIDGE TAPER ROLLER BEARING							
<b>12.2</b>	<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.	<b>Make &amp; nos.</b>	G-12-4A-1104	G-12-10-3851	G-12-4-1033	G-12-10-4186	G-12-4A-1111	G-12-10-3843	G-12-4B-943	G-12-10-4196	
ii.	<b>Ht. attest load</b>	510	466	511	466	510	466	510	466	
iii.	<b>Align .deviation</b>	7	18	6	20	2	15	2	17	
<b>12.3</b>	<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-12-6		G-12-6		GF	
	ii.	Primary inner Spring			G-12-6		G-12-5		GF	
	iii.	Primary Damper							GEREP	
	iv.	Secondary damper							SACHS	
	v.	Lateral Damper							GEREP	
	vi.	Yaw Damper							NIL	
	vii.	Brake cylinder & Caliper							KBI	
	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	
	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							EMSON	
12.4	i.	<b>Modification / Trial (if any):</b>				NIL				
	ii.	<b>Deviations (if any):</b>				NIL				



रेल डिब्बा कारखाना, कपूरथला  
Rail Coach Factory , Kapurthala

Page 1 of 3

**ROLLING STOCK CERTIFICATE**

Form No. : QMF 9454; Version: 1

1.	SHELL No.	4020	DISPATCH DATE			23.02.2015	
2.	Railway	SCR	Type	LWFAC	Coach No.	14003	
3.	Booked to			SSE/C&W/BZA			
4.	Tare Weight of Coach			43.6 T			
5.	Carrying Capacity	Seating	24	Sleeping	24	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	NIL		
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	89/90	
8.2	APPLICATION OF PCN-123			SATISFACTORY			
8.3	INSUALTION			SATISFACTORY			
9.	Traceability of Furnishing Items:			Make			
i.	BRAKE EQUIPMENT			KBI			
ii.	CDTS/ BIO TOILET			M K PRECISION			
iii.	SEATS/ BERTHS			AAR KAY FOAMS			
iv.	BODY SIDE DOOR			JBM			
v.	VESTIBULE SLIDING DOOR			KALSI			
vi.	SALOON DOOR			JBM			
vii.	WATER TANKS			AMIT, SHIVALIK			
viii.	UIC VESTIBULE			CEMCON			
ix	FLOOR BOARD			NARBADA			
x	PVC FLOORING			RESPONSIVE			
10.							
i	Modification / Trail (if any):					NIL	
ii	Deviations if any:					NIL	



रेल डिब्बा कारखाना, कपूरथला  
Rail Coach Factory , Kapurthala

12.	<b>Bogie Details:</b>		<b>Shell No.</b>	<b>Railway</b>	<b>Type</b>	<b>Coach No.</b>	<b>Dispatch Date</b>			
			4020	SCR	LWFAC	14003	10-12-2014			
12.1	<b>Wheel &amp; Axle Details:</b>		<b>PP Side</b>			<b>NPP Side</b>				
	i.	<b>Bogie No.</b>	147005			147007				
	ii.	<b>Frame No.</b>	FIAT-3631			FIAT-3646				
	iii.	<b>Bolster No.</b>	3862-P			4428-VT				
	iv.	<b>Axle No.</b>	128351/991		106072/630		127786/987		126678/480	
	v.	<b>Wheel Dia.</b>	915.00	915.0	915.00	915.00	915.00	915.00	915.00	915.00
	vi.	<b>Wheel Disc No.</b>	135-51912	197-51910	011-51910	189-51912	335-51915	251-51910	248-51908	234-51916
	vii.	<b>R.B. Nos.</b>	02822	31940	31483	30935	31358	32044	30131	30136
	viii.	<b>R.B. Make</b>	SKF		SKF		SKF		SKF	
	ix.	<b>RB Type</b>	UIC CARTRIDGE TAPER ROLLER BEARING							
12.2	<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>	G-12-8-1988	G-12-8-3587	G-12-8-2005	G-12-8-3483	G-12-5-1444	G-12-5-2175	G-12-5-794	G-12-5-2811	
ii.	<b>Ht. attest load</b>	511	467	510	467	511	466	512	467	
iii.	<b>Align .deviation</b>	5	28	4	28	2	34	4	34	
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-13-3		G-13-3		GF	
	ii.	Primary inner Spring			G-12-5		G-12-5		GF	
	iii.	Primary Damper							GEREP	
	iv.	Secondary damper							SACHS	
	v.	Lateral Damper							SACHS	
	vi.	Yaw Damper							NIL	
	vii.	Brake cylinder & Caliper							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	
	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							EMSON	
12.4	i.	<b>Modification / Trial (if any):</b>			NIL					
	ii.	<b>Deviations (if any):</b>			NIL					

LWFAC-4020



रेल डिब्बा कारखाना, कपूरथला  
Rail Coach Factory , Kapurthala

Page 1 of 3

**ROLLING STOCK CERTIFICATE**

Form No. : QMF 9454; Version: 1

1.	SHELL No.	4019	DISPATCH DATE			24.02.2015	
2.	Railway	SCR	Type	LWFAC	Coach No.	14001	
3.	Booked to	SSE/C&W/BZA					
4.	Tare Weight of Coach	43.6 T					
5.	Carrying Capacity	Seating	24	Sleeping	24	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	NIL	
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	88/88	
8.2	APPLICATION OF PCN-123		SATISFACTORY				
8.3	INSUALTION		SATISFACTORY				
9.	Traceability of Furnishing Items:						Make
i.	BRAKE EQUIPMENT						KBI
ii.	CDTS/ BIO TOILET						M K PRECISION
iii.	SEATS/ BERTHS						AAR KAY FOAMS
iv.	BODY SIDE DOOR						JBM
v.	VESTIBULE SLIDING DOOR						KALSI
vi.	SALOON DOOR						JBM
vii.	WATER TANKS						AMIT, SHIVALIK
viii.	UIC VESTIBULE						CEMCON
ix	FLOOR BOARD						NARBADA
x	PVC FLOORING						RESPONSIVE
10.							
i	Modification / Trail (if any):						NIL
ii	Deviations if any:						NIL



रेल डिब्बा कारखाना, कपूरथला  
Rail Coach Factory , Kapurthala

12.	<b>Bogie Details:</b>		<b>Shell No.</b>	<b>Railway</b>	<b>Type</b>	<b>Coach No.</b>	<b>Dispatch Date</b>			
			4019	SCR	LWFAC	14001	22-12-2014			
12.1	<b>Wheel &amp; Axle Details:</b>		<b>PP Side</b>				<b>NPP Side</b>			
	i.	<b>Bogie No.</b>	147033				147032			
	ii.	<b>Frame No.</b>	FIAT-3598				FIAT-3610			
	iii.	<b>Bolster No.</b>	178/PLASTO/ASR				4247-VT			
	iv.	<b>Axle No.</b>	A-2923		Z-3667		127944/988		Z-3397	
	v.	<b>Wheel Dia.</b>	917.00	917.00	916.00	916.00	916.00	916.00	916.00	916.00
	vi.	<b>Wheel Disc No.</b>	199-51912	128-51912	035-63307	095-10559	032-51912	092-51912	238-51908	044-51912
	vii.	<b>R.B. Nos.</b>	31668	30525	02369	02372	30104	32248	30090	32251
	viii.	<b>R.B. Make</b>	SKF		SKF		SKF		SKF	
	ix.	<b>RB Type</b>	UIC CARTRIDGE TAPER ROLLER BEARING							
12.2	<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>	YR-13-12-010	YR-13-11-100	YR-13-12-012	YR-13-11-103	YR-13-12-011	YR-13-11-102	YR-13-12-005	YR-13-11-101	
ii.	<b>Ht. attest load</b>	510	463.2	508.4	466.2	509.3	463.5	507.00	465.3	
iii.	<b>Align .deviation</b>	29.37	26.87	26.96	26.32	32.47	36.57	32.29	38.58	
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			YR-13-11		YR-13-11		YR	
	ii.	Primary inner Spring			YR-13-12		YR-13-12		YR	
	iii.	Primary Damper							GEREP	
	iv.	Secondary damper							SACHS	
	v.	Lateral Damper							GEREP	
	vi.	Yaw Damper							NIL	
	vii.	Brake cylinder & Caliper							KBI	
	viii.	Brake Disc							KBI	
	ix.	Ball joint Control arm							MGN/GMT	
	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/MGN	
	xix.	Fork make							EMSON	
12.4	i.	<b>Modification / Trial (if any):</b>				NIL				
	ii.	<b>Deviations (if any):</b>				NIL				

LWFAC-4019