



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.	6002			DISPATCH DATE	18/05/17		
2.	Railway	NR	Type	LWLRRM(HS)	Coach No.	163998		
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)	CBC Height	Specified : 1105 +0 /-15 mm		1105	1105		
	v)	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 <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		
	8.2	APPLICATION OF PCN-123	SATISFACTORY					
	8.3	INSUALTION	SATISFACTORY					
9.	Traceability of Furnishing Items:						Make	
	i.	BRAKE EQUIPMENT				FAVELLY		
	iii.	BIO TANK				RAIL TECH		
	iv.	SEATS/S&B				AMIR CHAND		
	v.	BODY SIDE DOOR				KNOR BREMES		
	vi.	VESTIBULE SLIDING DOOR				HANSPAL		
	vii.	CREW-GEN & GUARD ROOM DOOR				JBM/CP		
	viii.	WATER TANKS				(AUX) AMIT,(U/S)MANOJ		
	ix	FUEL TANK				SHIVALIK FASTENER		
	x	UIC VESTIBULE				HUBNER INTERFACE		
	XI	FLOOR BOARD				NARBADA		
	XII	PVC				RESPONSIVE		
	XII	LP SHEET				--		
	10.1	<b>Modification / Trail (if any):</b> 1. Fire/Smoke Detection with Alarm System as per RDSO Spec No. RDSO/2013/CG-09 Rev:03, Supplied and Commissioned by M/S. Sanrok , Delhi. Contact No. 9810566723. 2.Vinyl Wrapping supplied and fitted by. M/S.Techno Expert Jalandhar , Punjab , Contact No. 9317550000 3. Automatic Body Side Door supply and commissioned by M/S. Knor Bremes contact 09810428390 4.Intercar Gang way supply and commissioned by M/S. Hubner Interface Contact No. 08027735154/5155						
	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>			
			6002	NR	LWLRRM (HS)	163998	30-07-2016			
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>	166627				166628			
	ii.	<b>Frame No.</b>	FIAT-4967				FIAT-4886			
	iii.	<b>Bolster No.</b>	5965-VT				5981-VT			
	iv.	<b>Axle No.</b>	N-6936		N-5664		N-0447		N-6485	
	v.	<b>Wheel Dia.</b>	916.00	916.00	916.00	916.00	916.00	916.00	916.00	916.00
	vi.	<b>Wheel Disc No.</b>	13350-00129	13351-00239	13352-00203	13109-00173	13350-00139	13350-00241	13351-00051	13350-00035
	vii.	<b>R.B. Nos.</b>	01970	01733	04512	04917	01202	01076	02000	02288
	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>	
i.	<b>Make &amp; nos.</b>	RSK-15-3-073	RSK-16-01-019	RSK-16-01-125	RSK-16-1-080	RSK-16-6-150	G-15-9-045	RSK-16-5-149	G-15-9-064	
ii.	<b>Ht. at test load</b>	510	466	510	467	513	470	515	471	
iii.	<b>Align .deviation</b>	11	10	12	10	3	12	3	6	
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			L&S-15-12		L&S-15-12		L&S	
	ii.	Primary inner Spring			L&S-15-11		L&S-15-11		L&S	
	iii.	Primary Damper			1510,1817,1801,1523		1656,1660,1762,1592		KNORR	
	iv.	Secondary damper			0560,0020		0565,0256		SV	
	v.	Lateral Damper			0306		0114		SV	
	vi.	Yaw Damper							NIL	
	vii.	Brake cylinder & Caliper			F16033/500,F16001/500 F16034/500,F16008/500		C16004/500,C16001/500 C16001/500,C16002/500		FTI	
	viii.	Brake Disc							KBI	
	ix.	Ball joint Control arm							MGN	
	x.	Lateral Bump stop							GMT,MGN	
	xi.	Traction center make							SARITA	
	xii.	Traction lever make							SARITA	
	xiii.	Ball joint traction lever							MGN,GMT	
	xiv.	Traction centre elastic							GMT	
	xv.	Secondary rubber pad							TECSPAK	
	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				

LWLRRM/HS-6002



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ROLLING STOCK CERTIFICATE

Form No. :

QMF 9454; Version: 1

1.	SHELL No.	6003			DISPATCH DATE	18/05/17	
2.	Railway	NR	Type	LWLRRM(HS)	Coach No.	163999	
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)	CBC Height	Specified : 1105 +0 /-15 mm	1105	1105		
	v)	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 <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	86/89		
	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 FAB		
	iv.	SEATS/S&B			ARR KAYEE		
	v.	BODY SIDE DOOR			KNOR BREMES		
	vi.	VESTIBULE SLIDING DOOR			HANSPAL		
	vii.	CREW-GEN & GUARD ROOM DOOR			JBM/CP		
	viii.	WATER TANKS			(AUX) AMIT,(U/S)AMIT		
	ix	FUEL TANK			SHIVALIK FASTENER		
	x	UIC VESTIBULE			HUBNER INTERFACE		
	XI	FLOOR BOARD			NARBADA		
	XII	PVC			RESPONSIVE		
	XII	LP SHEET			--		
10.1	<b>Modification / Trail (if any):</b> 1. Fire/Smoke Detection with Alarm System as per RDSO Spec No. RDSO/2013/CG-09 Rev:03, Supplied and Commissioned by M/S. Sanrok , Delhi. Contact No. 9810566723. 2.CCTV Surveillance System as per ICF Specification No. ICF/MD/SPEC-269,issue status:01,Rev 05 Supplied and Commissioned by M/S Punjab Radio Jalandhar Punjab Contact No. 9815068700. 3.Infotainment System Supplied and Commissioned by M/S. Megh Doot Media New Delhi (Contact No.09810772892) 4. Automatic Body Side Door supply and commissioned by M/S. Knor Bremes contact No09810428390 ) 5.Vinyl Wrapping supplied and fitted by. M/S.Techno Expert Jalandhar , Punjab , Contact No. 9317550000 6.Intercar Gang way supply and commissioned by M/S. Hubner Interface Contact No. 08027735154/5155 . 7.Vacuum Toilet System supply and fitted by M/S. Amit Engineers Badi Contact No.09814787247						
10.2	Deviations if any:				NIL		



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11.	<b>Bogie Details:</b>		Shell No.	Railway	Type	Coach No.	Dispatch Date				
			6003	NR	LWLRRM ( HS )	163999	29-07-2016				
11.1	<b>Wheel &amp; Axle Details:</b>		LPC-I PP Side(Guard )				LPC-II NPP Side (Non guard )				
	i.	Bogie No.	166621				166622				
	ii.	Frame No.	FIAT-4997				FIAT-4981				
	iii.	Bolster No.	5957-VT				5968-VT				
	iv.	Axle No.	N-5692		N-6452		P-9071		N-6978		
	v.	Wheel Dia.	916.00	916.00	916.00	916.00	916.00	916.00	916.00	916.00	
	vi.	Wheel Disc No.	13352-00130	13352-00314	13352-00053	13109-00174	13351-00074	13352-00319	13353-00179	13352-00081	
	vii.	R.B. Nos.	04568	05110	05528	05687	05305	04556	04779	05300	
	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.	RSK-15-3-200	RSK-16-1-021	RSK-15-3-197	RSK-16-1-165	G-16-1-1026	G-15-9-076	G-16-1-1029	G-15-9-099		
ii.	Ht. at test load	510	468	510	470	513	468	511	468		
iii.	Align .deviation	7	13	4	11	15	6	18	7		
11.3	<b>Items traceability:</b>										
	Sno.	Item	PP Side Bogie				NPP side Bogie				Make
	i.	Primary Outer Spring	L&S-15-12				L&S-15-12				L&S
	ii.	Primary inner Spring	L&S-15-11				L&S-15-11				L&S
	iii.	Primary Damper	1666,1589,1543,1669				1533,1505,1539,1820				KNORR
	iv.	Secondary damper	0189,0357				0477,0032				SV
	v.	Lateral Damper	296				100				SV
	vi.	Yaw Damper									NIL
	vii.	Brake cylinder & Caliper	J9205/685/2UR,J8943/686/1UR J9206/685/2UR,J8944/685/1UR				J9204/685/2UR,J9202/685/1UR J9207/685/2UR,J9203/685/1UR				KBI
	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, MGN
	xiv.	Traction centre elastic									GMT
	xv.	Secondary rubber pad									TECSPA K
	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/HS-6003



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	6001			DISPATCH DATE	18/05/17	
2.	Railway	NR	Type	LWLRRM(HS)	Coach No.	163997	
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)	CBC Height	Specified : 1105 +0 /-15 mm		1102	1105	
	v)	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 <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	89/87	
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:				Make		
	i.	BRAKE EQUIPMENT			FAVELLY		
	iii.	BIO TANK			RAIL FAB		
	iv.	SEATS			ARR KAYEE		
	v.	BODY SIDE DOOR			KNOR BREMES		
	vi.	VESTIBULE SLIDING DOOR			HANSPAL		
	vii.	CREW-GEN & GUARD ROOM DOOR			JBM/CP		
	viii.	WATER TANKS			(AUX) AMIT,(U/S)AMIT		
	ix	FUEL TANK			SHIVALIK FASTENER		
	x	UIC VESTIBULE			HUBNER INTERFACE		
	XI	FLOOR BOARD			NARBADA		
	XII	PVC			RESPONSIVE		
	XII	LP SHEET			--		
	10.1	<b>Modification / Trail (if any):</b> 1. Fire/Smoke Detection with Alarm System as per RDSO Spec No. RDSO/2013/CG-09 Rev:03, Supplied and Commissioned by M/S. Sanrok , Delhi. Contact No. 9810566723. 2.Vinyl Wrapping supplied and fitted by. M/S.Techno Expert Jalandhar , Punjab , Contact No. 9317550000 3. Automatic Body Side Door supply and commissioned by M/S. Knor Bremes contact 09810428390 4.Intercar Gang way supply and commissioned by M/S. Hubner Interface Contact No. 08027735154/5155					
	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>			
			6001	NR	LWLRRM( HS)	163997	04-08-2016			
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>	166629				166630			
	ii.	<b>Frame No.</b>	FIAT-4974				FIAT-4982			
	iii.	<b>Bolster No.</b>	5967-VT				5969-VT			
	iv.	<b>Axle No.</b>	N-0659		N-5704		N-6077		N-0874	
	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>	3352-00216	13352-00110	13352-00152	13354-00121	13354-00201	13352-00271	13354-00118	13351-00081
	vii.	<b>R.B. Nos.</b>	02102	02304	02059	02189	01675	02356	02147	02538
	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>	Secondary 1		Secondary 2		Secondary 1		Secondary 2		
		Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	
i.	<b>Make &amp; nos.</b>	RSK-16-1-140	RSK-16-1-28	RSK-16-1-028	RSK-16-1-084	RSK-16-5-298	RSK-16-5-059	RSK-16-5-331	RSK-16-5-293	
ii.	<b>Ht. at test load</b>	511	468	512	468	514	468	515	471	
iii.	<b>Align .deviation</b>	14	3	14	5	8	5	8	8	
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			L&S-15-12		L&S-15-12		L&S	
	ii.	Primary inner Spring			L&S-15-11		L&S-15-11		L&S	
	iii.	Primary Damper			1766,1492,1707,1595		1781,1780,1786,1737		KNORR	
	iv.	Secondary damper			090,009		003,032		GABRIEL	
	v.	Lateral Damper			020		003		GABRIEL	
	vi.	Yaw Damper							NIL	
	vii.	Brake cylinder & Caliper			C16002/500,C16005/500 C16003/500,C16006/500		F16036/500,F16018/500 F16035/500,F16017/500		FTI	
	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							MGN	
	xiv.	Traction centre elastic							GMT	
	xv.	Secondary rubber pad							TECSPAK	
	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					