



रेल डिब्बा कारखाना, कपूरथला
Rail Coach Factory , Kapurthala

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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	6020	DISPATCH DATE				17.08.16	
2.	Railway	ECR	Type	LS3	Coach No.	16403		
3.	Booked to	SSE/C&W/MGS						
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)		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		VIBGYOR	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						OVPL	
lii	BODY SIDE DOORS						JBM,SUKATA	
lv	WATER TANKS						RUBICONE	
v	FLOOR BOARD						TWPL	
VI	PVC						RESPONSIVE	
Vii	LP SHEET						PL	
10.								
10.1	Modification / Trail (if any):					NIL		
10.2	Deviations if any:					NIL		



11.	Bogie Details:		Shell No.		Railway		Type		Coach No.		Dispatch Date	
			6020		ECR		LS3		16403		08-08-2016	
11.1	Wheel & Axle Details:		PP Side				NPP Side					
	i.	Bogie No.	166691				166692					
	ii.	Frame No.	FIAT-5018				FIAT-5061					
	iii.	Bolster No.	5689-VT				6047-VT					
	iv.	Axle No.	N-5828		N-6774		N-6387		N-6570			
	v.	Wheel Dia.	916.50	917.00	916.50	916.00	916.00	916.00	916.00	916.00	916.00	916.00
	vi.	Wheel Disc No.	7275-00134	7283-00056	7299-00194	7274-00167	7299-00026	7292-00134	13109-00067	13109-00067	13354-00114	13354-00114
	vii.	R.B. Nos.	01597	01721	02606	02596	02217	03855	02457	02457	03883	03883
	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.	FSK-15-7-79	FSK-16-7-29	FSK-15-7-29	FSK-16-7-45	FSK-15-7-72	FSK-16-7-36	FSK-15-7-70	FSK-16-7-25			
ii.	Ht. at test load	514	470	516	466.50	512.50	471	512.50	472			
iii.	Align .deviation	8	7	9	9	9	8	10	9			
11.3	Items traceability:											
	Sno.	Item			PP Side Bogie			NPP side Bogie			Make	
	i.	Primary Outer Spring			RSK-15-10			RSK-15-10			RSK	
	ii.	Primary inner Spring			RSK-16-2			RSK-16-2			RSK	
	iii.	Primary Damper			189,175,150,171			168,166,148,146			GABRIEL	
	iv.	Secondary damper			--52			16,78			GEREP	
	v.	Lateral Damper			206			0183			KNORR	
	vi.	Yaw Damper									NIL	
	vii.	Brake cylinder & Caliper			F16221/600,F16129/600 F16222/600,F16166/600			F16227/600,F16117/600 F16228/600,F16142/600			FTI	
	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									GMT	
	xv.	Secondary rubber pad									TESPACK	
	xvi.	Rubber spring									GMT	
	xvii.	Anti roll bar make									EMSON, SARITA	
	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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1.	SHELL No.	6021	DISPATCH DATE				17.08.16
2.	Railway	ECR	Type	LS3	Coach No.	16404	
3.	Booked to	SSE/C&W/MGS					
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)	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	VIBGYOR	86/87		
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:				Make		
	I	BRAKE EQUIPMENT			KBI		
	ii	SEAT & BERTH			OVPL		
	iii	BODY SIDE DOORS			JBM		
	iv	WATER TANKS			RUBICON,RAIL FAB		
	v	FLOOR BOARD			TAYAL		
	VI	PVC			RESPONSIVE		
	Vii	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	
			6021		ECR		LS3		16404		05-08-2016	
11.1	Wheel & Axle Details:		PP Side						NPP Side			
	i.	Bogie No.	166679						166680			
	ii.	Frame No.	FIAT-4999						FIAT-4827			
	iii.	Bolster No.	6032-VT						6030-VT			
	iv.	Axle No.	N-6859			N-0362			K-6437		P-9566	
	v.	Wheel Dia.	916.00	916.00	916.00	916.00	917.00	917.00	917.00	917.00		
	vi.	Wheel Disc No.	13109-00305	13353-00124	13109-00060	13352-00049	7279-00134	7274-00126	7279-00132	7274-00168		
	vii.	R.B. Nos.	02184	01752	01785	01983	02351	02309	01394	02597		
	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.	RSK-16-4-025	RSK-16-4-43	RSK-16-4-040	RSK-16-4-59	RSK-16-4-044	RSK-16-4-80	RSK-16-4-043	RSK-16-4-30			
ii.	Ht. at test load	515	478	540	472	516	469	515	469			
iii.	Align .deviation	6	9	9	11	5	9	4	5			
11.3	Items traceability:											
	Sno.	Item			PP Side Bogie			NPP side Bogie			Make	
	i.	Primary Outer Spring			RSK-16-5			RSK-16-5			RSK	
	ii.	Primary inner Spring			RSK-16-2			RSK-16-2			RSK	
	iii.	Primary Damper			221,197,194,195			155,220,193,136			GABRIEL	
	iv.	Secondary damper			75,1			45,50			GEREP	
	v.	Lateral Damper			0187			0203			KNORR	
	vi.	Yaw Damper									NIL	
	vii.	Brake cylinder & Caliper			3062/691,3514/691 3055/691,3612/691			3551/691,3520/691 3545/691,3522/691			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,GMT	
	xiv.	Traction centre elastic									GMT	
	xv.	Secondary rubber pad									TESPACK	
	xvi.	Rubber spring									GMT	
	xvii.	Anti roll bar make									SARITA	
	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.	6023	DISPATCH DATE				20.08.16
2.	Railway	ECR	Type	LS3	Coach No.	16405	
3.	Booked to	SSE/C&W/MGS					
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)	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	VIBGYOR	85/87		
	8.2	APPLICATION OF PCN-123	SATISFACTORY				
	8.3	INSUALTION	SATISFACTORY				
9.	Traceability of Furnishing Items:			Make			
	I	BRAKE EQUIPMENT		KBI			
	ii	SEAT & BERTH		RAJENDRA DASS			
	iii	BODY SIDE DOORS		JBM,SUKATA			
	iv	WATER TANKS		RAIL FAB			
	v	FLOOR BOARD		TWPL			
	VI	PVC		RESPONSIVE			
	Vii	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	
			6023		ECR		LS3		16405/C		05-08-2016	
11.1	Wheel & Axle Details:		PP Side						NPP Side			
	i.	Bogie No.	166681						166682			
	ii.	Frame No.	FIAT-5072						FIAT-5066			
	iii.	Bolster No.	5975-VT						5987-VT			
	iv.	Axle No.	N-6070			P-9036			K-5838		N-5736	
	v.	Wheel Dia.	916.00	916.00	917.00	917.00	916.00	916.50	917.00	917.00		
	vi.	Wheel Disc No.	13109-00200	13353-00088	13350-00182	13353-00100	13353-00116	13353-00052	7271-00157	7275-00168		
	vii.	R.B. Nos.	02243	02503	01580	02124	02589	01375	02097	01854		
	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.	RSK-16-4-116	RSK-16-4-587	RSK-16-4-021	RSK-16-4-541	RSK-16-4-118	RSK-16-4-357	RSK-16-4-029	RSK-16-4-538			
ii.	Ht. at test load	513	470	511	472	514	468	515	470			
iii.	Align .deviation	3	15	6	15	2	5	2	6			
11.3	Items traceability:											
	Sno.	Item			PP Side Bogie			NPP side Bogie			Make	
	i.	Primary Outer Spring			RSK-15-10			RSK-15-10			RSK	
	ii.	Primary inner Spring			RSK-16-2			RSK-16-2			RSK	
	iii.	Primary Damper			173,192,200,229			126,203,124,122			GABRIEL	
	iv.	Secondary damper			16,102			14,34			GEREP	
	v.	Lateral Damper			0037			0369			SV	
	vi.	Yaw Damper									NIL	
	vii.	Brake cylinder & Caliper			3629/691,3554/691 3627/691,3555/691			3547/691,3521/691 3546/691,3519/691			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									MGN	
	xiv.	Traction centre elastic									GMT	
	xv.	Secondary rubber pad									TESPACK	
	xvi.	Rubber spring									GMT	
	xvii.	Anti roll bar make									SARITA	
	xviii.	Ball joint roll link									SARITA	
	xix.	Fork make									SARITA	
11.4	i.	Modification / Trial (if any):						NIL				
	ii.	Deviations (if any):						NIL				

LS3 6023

