



रेल डिब्बा कारखाना, कपूरथला
Rail Coach Factory , Kapurthala

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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	3045	DISPATCH DATE			16.4.2014
2.	Railway	NF	Type	LS3	Coach No.	13479
3.	Booked to	SSE/C&W/GHY				
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)		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 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	86/86	
8.2	APPLICATION OF PCN-123		SATISFACTORY			
8.3	INSUALTION		SATISFACTORY			
9.	Traceability of Furnishing Items:			Make		
i	BRAKE EQUIPMENT			FAIVELEY		
ii	SEATS/ BERTHS			AAR KAY FOAMS		
iii	BODY SIDE DOOR			JBM		
iv	WATER TANKS			RUBICON		
v	LAV DOORS			JVR & KALSI		
10.						
10.1	Modification / Trail (if any):				NIL	
10.2	Deviations if any:				NIL	



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Form No. : QMF 9454; Version:

03

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Date: 28-03-2014

Shell No.:- 3045

RLY	NF	Type	LS3	Coach No.	13479/C
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6.0 Wheel & Axle details:

Items	PP Side				Non PP Side			
Bogie No.	146238				146239			
Frame No.	FIAT-2992				FIAT-2399			
Bolster No.	3683-GT				3694-GT			
Axle No.	H-3485		RWF-109488		RWF-109910		RWF-109722	
Wheel Diameter	918.00	918.00	918.00	918.00	918.00	918.00	918.00	918.00
Wheel Disc No.	139-51912	175-51916	251-51915	270-50788	048-51915	227-50859	238-50859	062-51915
R.B. Nos.	04960	04740	04870	04588	05031	04708	04816	04729
R. B. Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
RB Type	CARTRIDGE TAPER ROLLER BEARING							

6.1 Secondary suspension load deflection Values:

Description	Bogie PP side				Bogie NPP side			
	Secondary 1		Secondary 2		Secondary 1		Secondary 2	
	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
Make & nos.	CMGBD-02-14-5101	CMGBD-02-14-5100	CMGBD-02-14-5101	CMGBD-02-14-5100	CMGBD-02-14-5101	CMGBD-02-14-5100	CMGBD-02-14-5101	CMGBD-02-14-5100
Ht. Attest Load	516	470	516	472	516	472	519	469
Align. deviation	8	4	6	3	7	4	5	4

6.2 Component traceability:

SNO	ITEM	PP Side Bogie	NPP side Bogie	Make
1	Primary Outer Spring batch no.	CMGBD-2-14-1100-13	CMGBD-2-14-1100-13	GB
2	Primary inner Spring batch no	CMGBD-2-14-1101-9	CMGBD-2-14-1101-9	GB
3	Primary Damper			SV
4	Secondary damper			GEREP
5	Lateral Damper			KONI
6	Brake cylinder & Caliper	A-14242/600,A-14212/600, A-14237/600,A-14200/600	A-14022/600,A-14036/600, A-14021/600,A-14032/600	FTI
7	Brake Disc			FTI
8	Ball joint Control arm			GMT
9	Lateral Bump stop			GMT
10	Traction center make			SARITA
11	Traction lever make			SARITA
12	Ball joint traction lever			GMT
13	Ball joint Traction centre			GMT
14	Secondary rubber pad			TESPAK
15	Rubber spring			GMT
16	Anti roll bar make			SARITA
17	Roll link make			SARITA
18	Fork make			EMSON

LS3-3045



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	3051	DISPATCH DATE				22.4.2014
2.	Railway	NF	Type	LS3	Coach No.	13480	
3.	Booked to	SSE/C&W/GHY					
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)		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 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	89/89		
8.2	APPLICATION OF PCN-123		SATISFACTORY				
8.3	INSUALTION		SATISFACTORY				
9.	Traceability of Furnishing Items:		Make				
I	BRAKE EQUIPMENT			KBI			
li	SEAT & BERTH			AAR KAY FOAMS			
lii	BODY SIDE DOORS			JBM			
lv	WATER TANKS			RUBICON			
v	FLOOR BOARD			TAYAL			
10.							
10.1	Modification / Trail (if any):				NIL		
10.2	Deviations if any:				NIL		



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Form No. : QMF 9454; Version: 03

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Date: 28-03-2014

Shell No.:-3051

RLY	NF	Type	LS3	Coach No.	13480
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6.0 Wheel & Axle details:

Items	PP Side				Non PP Side			
Bogie No.	146278				146279			
Frame No.	FIAT-2458				FIAT-3037			
Bolster No.	2009-GT				3090-VT			
Axle No.	RWF-109640		RWF-109886		RWF-109327		RWF-109873	
Wheel Diameter	918.00	918.00	918.00	918.00	917.00	917.00	917.00	917.00
Wheel Disc No.	101-51782	185-51782	111-50857	257-50857	117-50867	157-50861	160-51781	042-50846
R.B. Nos.	03511	04803	03362	03615	03422	04817	04789	04767
R. B. Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
RB Type	CARTRIDGE TAPER ROLLER BEARING							

6.1 Secondary suspension load deflection Values:

Description	Bogie PP side				Bogie NPP side			
	Secondary 1		Secondary 2		Secondary 1		Secondary 2	
	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
Make & nos.	G-13-12-284	G-13-12-258	G-13-12-290	G-13-12-150	G-13-12-238	G-13-12-266	G-13-12-113	G-13-12-340
Ht. Attest Load	513	471	514	471	515	470	515	471
Align. deviation	5	18	3	17	1	15	2	18

6.2 Component traceability:

SNO	ITEM	PP Side Bogie	NPP side Bogie	Make
1	Primary Outer Spring batch no.	G-13-11	G-13-11	GF
2	Primary inner Spring batch no	G-13-11	G-13-11	GF
3	Primary Damper			SV
4	Secondary damper			GEREP
5	Lateral Damper			KONI
6	Brake cylinder & Caliper	H-6898/691,H-6040/691, H-6895/691,H-6319/691	H-6832/691,H-5945/691, H-6827/691,H-5946/691	KBI
7	Brake Disc			FTI
8	Ball joint Control arm			GMT
9	Lateral Bump stop			GMT
10	Traction center make			SARITA
11	Traction lever make			SARITA
12	Ball joint traction lever			GMT
13	Ball joint Traction centre			GMT
14	Secondary rubber pad			TESPAK
15	Rubber spring			GMT
16	Anti roll bar make			SARITA
17	Roll link make			SARITA
18	Fork make			EMSON

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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	3043	DISPATCH DATE			24.4.2014
2.	Railway	NF	Type	LS3	Coach No.	13483
3.	Booked to	SSE/C&W/GHY				
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)		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 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	88/89	
8.2	APPLICATION OF PCN-123		SATISFACTORY			
8.3	INSUALTION		SATISFACTORY			
9.	Traceability of Furnishing Items:					Make
i	BRAKE EQUIPMENT			KBI		
ii	SEAT & BERTH			AAR KAY FOAMS		
iii	BODY SIDE DOORS			JBM & MOHAN RAIL		
iv	WATER TANKS			RUBICON		
v	FLOOR BOARD			TAYAL		
10.						
10.1	Modification / Trail (if any):			NIL		
10.2	Deviations if any:			NIL		



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Form No. : QMF 9454; Version:

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Shell No.:-3043

Date: 28-03-2014

RLY	NF	Type	LS3	Coach No.	13483
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6.0 Wheel & Axle details:

Items	PP Side				Non PP Side			
Bogie No.	146272				146273			
Frame No.	FIAT-2994				FIAT-2810			
Bolster No.	3706-VT				0630/ECBT/ASR			
Axle No.	RWF-109908		W-4666		W-4731		RWF-110076	
Wheel Diameter	917.00	917.00	917.00	917.00	917.00	917.00	917.00	917.00
Wheel Disc No.	090-50849	325-51777	218-51777	041-51912	224-50800	327-50859	106-50859	149-50857
R.B. Nos.	04589	04959	04774	04662	04747	04762	04575	04878
R. B. Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
RB Type	CARTRIDGE TAPER ROLLER BEARING							

6.1 Secondary suspension load deflection Values:

Description	Bogie PP side				Bogie NPP side			
	Secondary 1		Secondary 2		Secondary 1		Secondary 2	
	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
Make & nos.	G13-12-217	G13-12-128	G13-12-214	G13-12-126	G13-12-248	G13-12-161	G13-12-186	G13-12-158
Ht. Attest Load	514	471	512	471	514	471	513	471
Align. deviation	1	20	1	19	4	10	5	14

6.2 Component traceability:

SNO	ITEM	PP Side Bogie	NPP side Bogie	Make
1	Primary Outer Spring batch no.	G-11-13	G-11-13	GF
2	Primary inner Spring batch no	G-11-13	G-11-13	GF
3	Primary Damper			SV
4	Secondary damper			GEREP
5	Lateral Damper			KONI
6	Brake cylinder & Caliper	H-6780/691,H-6861/691, H-9742/691,H-6763/691	H-8701/691,H-8536/691, H-8684/691,H-8538/691	KBI
7	Brake Disc			FTI
8	Ball joint Control arm			SGA
9	Lateral Bump stop			GMT
10	Traction center make			SARITA
11	Traction lever make			SARITA
12	Ball joint traction lever			GMT
13	Ball joint Traction centre			SGA
14	Secondary rubber pad			TESPAK
15	Rubber spring			GMT
16	Anti roll bar make			SARITA
17	Roll link make			SARITA
18	Fork make			EMSON

LS3-3043



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Rail Coach Factory , Kapurthala

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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	3048	DISPATCH DATE			26.4.2014	
2.	Railway	NF	Type	LS3	Coach No.	13481	
3.	Booked to	SSE/C&W/GHY					
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)		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 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	88/89	
8.2	APPLICATION OF PCN-123		SATISFACTORY				
8.3	INSUALTION		SATISFACTORY				
9.	Traceability of Furnishing Items:			Make			
I	BRAKE EQUIPMENT			KBI			
ii	SEAT & BERTH			AAR KAY FOAMS			
lii	BODY SIDE DOORS			JBM & SUKATA			
lv	WATER TANKS			RUBICON			
v	FLOOR BOARD			TAYAL			
10.							
10.1	Modification / Trail (if any):			NIL			
10.2	Deviations if any:			NIL			



रेल डिब्बा कारखाना, कपूरथला
Rail Coach Factory , Kapurthala

Shell No.:- 3048

Date: 27-03-2014

RLY	NF	Type	LGS	Coach No.	13481
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6.0 Wheel & Axle details:

Items	PP Side				Non PP Side			
Bogie No.	146268				146269			
Frame No.	FIAT-2828				FIAT-3039			
Bolster No.	3742-P				3732-P			
Axle No.	RWF-109912		RWF-109482		T-2305		R-3279	
Wheel Diameter	918.00	918.00	918.00	918.00	917.00	917.00	918.00	918.00
Wheel Disc No.	223-50846	341-51787	013-48744	122-51781	313-50846	072-48744	128-50792	112-48763
R.B. Nos.	00855	00528	06558	05520	06501	06674	06765	06679
R. B. Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
RB Type	CARTRIDGE TAPER ROLLER BEARING							

6.1 Secondary suspension load deflection Values:

Description	Bogie PP side				Bogie NPP side			
	Secondary 1		Secondary 2		Secondary 1		Secondary 2	
	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
Make & nos.	G-13-12-142	G-13-12-348	G-13-12-266	G-13-12-334	G-13-12-222	G-13-12-354	G-13-12-229	G-13-12-339
Ht. Attest Load	515	471	515	464	517	471	513	469
Align. deviation	5	17	3	14	7	16	3	15

6.2 Component traceability:

SNO	ITEM	PP Side Bogie	NPP side Bogie	Make
1	Primary Outer Spring batch no.	G-11-13	G-11-13	GF
2	Primary inner Spring batch no	G-11-13	G-11-13	GF
3	Primary Damper			SACHS
4	Secondary damper			GEREP
5	Lateral Damper			KONI
6	Brake cylinder & Caliper	H-6672/691,H-6758/691, H-6670/691,H-6755/691	H-6474/691,H-9394/691, H-9014/691,H-9346/691	KBI
7	Brake Disc			FTI
8	Ball joint Control arm			SGA
9	Lateral Bump stop			GMT
10	Traction center make			SARITA
11	Traction lever make			SARITA
12	Ball joint traction lever			GMT
13	Ball joint Traction centre			SGA
14	Secondary rubber pad			TESPAK
15	Rubber spring			GMT
16	Anti roll bar make			SARITA
17	Roll link make			SARITA
18	Fork make			EMSON



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

1.	SHELL No.	3049	DISPATCH DATE			28.4.2014	
2.	Railway	NF	Type	LS3	Coach No.	13482	
3.	Booked to	SSE/C&W/GHY					
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)		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 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	88/89	
8.2	APPLICATION OF PCN-123		SATISFACTORY				
8.3	INSUALTION		SATISFACTORY				
9.	Traceability of Furnishing Items:			Make			
I	BRAKE EQUIPMENT			FAIVELEY			
ii	SEAT & BERTH			AAR KAY FOAMS			
iii	BODY SIDE DOORS			JBM			
iv	WATER TANKS			RUBICON			
v	FLOOR BOARD			TAYAL			
10.							
10.1	Modification / Trail (if any):			NIL			
10.2	Deviations if any:			NIL			



रेल डिब्बा कारखाना, कपूरथला
Rail Coach Factory , Kapurthala

Shell No.:- 3049

Date: 16-04-2014

RLY	NF	Type	LS	Coach No.	13482
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6.0 Wheel & Axle details:

Items	PP Side				Non PP Side			
Bogie No.	146336				146337			
Frame No.	FIAT-2980				FIAT-2282			
Bolster No.	3772-VT				3762-P			
Axle No.	W-4589		RWF-110322		RWF-110333		RWF-109741	
Wheel Diameter	916.00	916.50	916.00	916.50	916.00	916.00	918.00	918.00
Wheel Disc No.	007-51908	136-51908	085-48744	165-51912	059-48744	289-54912	330-50798	082-50842
R.B. Nos.	03813	03680	03387	03827	03501	03696	03400	03440
R. B. Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
RB Type	CARTRIDGE TAPER ROLLER BEARING							

6.1 Secondary suspension load deflection Values:

Description	Bogie PP side				Bogie NPP side			
	Secondary 1		Secondary 2		Secondary 1		Secondary 2	
	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
Make & nos.	CMFSK-2-14-18	CVFKS-2-14-58	CMFSK-2-14-25	CVFKS-2-14-44	CMFSK-2-14-38	CVFKS-2-14-41	CMFSK-2-14-47	CVFKS-2-14-44
Ht. Attest Load	515	468	516	471	513	468	514	472
Align. deviation	4	7	8	8	7	5	5	4

6.2 Component traceability:

SNO	ITEM	PP Side Bogie	NPP side Bogie	Make
1	Primary Outer Spring batch no.	CMFSK-02-14-1100	CMFSK-02-14-1100	CMFSK
2	Primary inner Spring batch no	CMFSK-02-14-1101	CMFSK-02-14-1101	CMFSK
3	Primary Damper			GEREP
4	Secondary damper			GEREP
5	Lateral Damper			KONI
6	Brake cylinder & Caliper			-----
7	Brake Disc			FTI
8	Ball joint Control arm			GMT
9	Lateral Bump stop			GMT
10	Traction center make			SARITA
11	Traction lever make			SARITA
12	Ball joint traction lever			SGA
13	Ball joint Traction centre			GMT
14	Secondary rubber pad			TESPAK
15	Rubber spring			GMT
16	Anti roll bar make			SARITA
17	Roll link make			SARITA
18	Fork make			EMSON