



**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)**

**COMPENDIUM  
OF  
CORRECTION SLIPS  
TO CODES & MANUALS  
PERTAINING TO ENGG. DEPTT.**

( Incorporating all advance correction slips issued between 1<sup>st</sup> Jun 2013 to 31<sup>st</sup> Dec 2013)



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(RAILWAY BOARD)**

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## **FOREWORD**

The correction Slips (CSs) to various Codes and Manuals pertaining to the Engineering Department are being issued by various nodal authorities, which have been nominated by the Railway Board. There had been reports that the same were not reaching the concerned officials down line.

It was, therefore, decided by the Railway Board (M.E) vide letter No. 2004/ CE-II/CS/1 dated 05-02-04 that in addition to the issue of CSs by nodal authorities as per extant practice, the same shall also be compiled and published in the form of a booklet twice a year, generally i.e. on 30<sup>th</sup> June and 31<sup>st</sup> December by IRICEN and recirculated to the Railways, containing the CSs issued during the preceding six months. In order to provide continuity, an abstract of previous volumes of Compendium of Correction slips has been included giving the details of Correction Slips to each of Codes & Manuals, contained in the respective volumes

This is the Ninenth volume containing CSs issued during the period between 1<sup>st</sup> Jun 2013 to 31<sup>st</sup> Dec 2013. The pages have been printed on one side only, so as to facilitate tearing/pasting/updating the codes and manuals by the concerned officials. The contents are also available on the IRICEN website [www.ircen.gov.in](http://www.ircen.gov.in) in members area.

**Director  
IRICEN**

Pune  
31<sup>st</sup> Dec 2013

## CONTENTS

S. No.	Codes / Manuals	Pages
1	INDIAN RAILWAYS PERMANENT WAY MANUAL (Second Reprint -2004)	1-17
2	INDIAN RAILWAYS BRIDGE MANUAL – 1998	18-19
3	RAILWAYS INDIAN TRACK MACHINE MANUAL – 2000	20-33
4	INDIAN RAILWAYS SCHEDULE OF DIMENSIONS 1976 mm GAUGE (BG) REVISED - 2004	34-48

**No Correction Slips received to the following Codes & Manuals between  
1<sup>st</sup> Jun 2013 to 31<sup>st</sup> Dec2013**

1	INDIAN RAILWAYS WORKS MANUAL – 2000	
2	MANUAL OF INSTRUCTION ON LONG WELDED RAILS 1996 (Second Reprint – 2005)	
3	MANUAL FOR FLASH BUTT WELDING OF RAILS (Reprint 2012)	
4	MANUAL FOR FUSION WELDING OF RAILS BY ALUMINO-THERMIC PROCESS-1988(New Manual Rev.2012)	
5	MANUAL FOR ULTRASONIC TESTING OF RAIL AND WELDS – 2012 (New Manual Revised 2012)	
6	MANUAL FOR GLUED INSULATED RAIL JOINTS-1998	
7	MANUAL OF INSPECTION SCHEDULE FOR OFFICIALS OF ENGINEERING DEPARTMENT - 2000	
8	RAILWAYS (OPENING FOR PUBLIC CARRIAGE OF PASSENGERS) RULES, 2000	
9	INDIAN RAILWAYS CODE FOR ENGG DEPT(Third reprint1999)	
10	GUIDELINES FOR EARTHWORK IN RAILWAY PROJECTS - 2003	

**DISCLAIMER:- This compendium is compilation of different correction slips for reference purpose only. For any doubt or confirmation, original correction slips issued by RDSO /Railway Board may be referred.**



SN	Code/Manual	Serial Number of Correction Slips/Addendum & Corrigendum / Errata													
		Last Correction Slips	Vol. 3 No. 1 Dec. 06	Vol. 3 No. 2 Dec 06	Vol. 4 No. 1 June 07	Vol. 4 No. 2 Dec 07	Vol. 5 No. 1 June. 08	Vol 5 No. 2 Dec 08	Vol. 6 No. 1 June 09	Vol. 7 No. 1 June 10	Vol. 8 No. 1 June 12	Vol. 8 No. 2 Dec. 12	Vol. 9 No. 1 June13	Vol. 9 No. 1 Dec. 13	
9	INDIAN RAILWAYS TRACK MACHINE MANUAL – 2000	10 dt. 12/12/06	Nil	9 & 10	Nil	Nil	Nil	Nil	Nil	Nil	Nil	14-15	13*	NIL	12&16*
10	MANUAL OF INSPECTIN SCHEDULES FOR OFFICIALS OF ENGINEERING DEPARTMENT – 2000	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	NIL	NIL
11	RAILWAYS (OPENING FOR PUBLIC CARRIAGE OF PASSENGERS) RULES, 2000	Corrigandum dt. 16/2/05	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	NIL	NIL
12	INDIAN RAILWAYS SCHEDULE OF DIMENSIONS 1676 mm GAUGE (BG) REVISED – 2004	5 dt 11/2/09	1 & 2	Nil	Nil	3	Nil	Nil	5*	Nil	6-7	8-11	12	13-14	
13	INDIAN RAILWAYS CODE FOR THE ENGINEERING DEPARTMENT (Third Reprint – 199)	45 dt 10/7/08	Nil	40	41	42	Nil	43 to 45	Nil	Nil	Nil	46	NIL	NIL	
14	GUIDELINES FOR EARTHWORK IN RAILWAY PROJECTS - 2003	1 dt. 22/7/04	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	NIL	NIL	

\* 4 not yet issued. \*11 NOT YET ISSUED



सत्यमेव जयते

भारत सरकार

रेल मंत्रालय

(रेलवे बोर्ड)

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)

भारतीय रेल

रेल पथ

नियमावली

INDIAN RAILWAYS  
PERMANENT WAY  
MANUAL

द्वितीय पुनर्मद्रण 2004

दिनांक 05-03-2005 के क्रमांक 93 तक के  
समस्त अग्रिम शब्दि पत्र समाहित

Second Reprint 2004

Embodying all advance correction slips upto  
Number 93 dated 05-03-2004

**INDIAN RAILWAYS PERMANENT WAY MANUAL**  
**ADVANCE CORRECTION SLIP No.134 dated 18.07.2013**

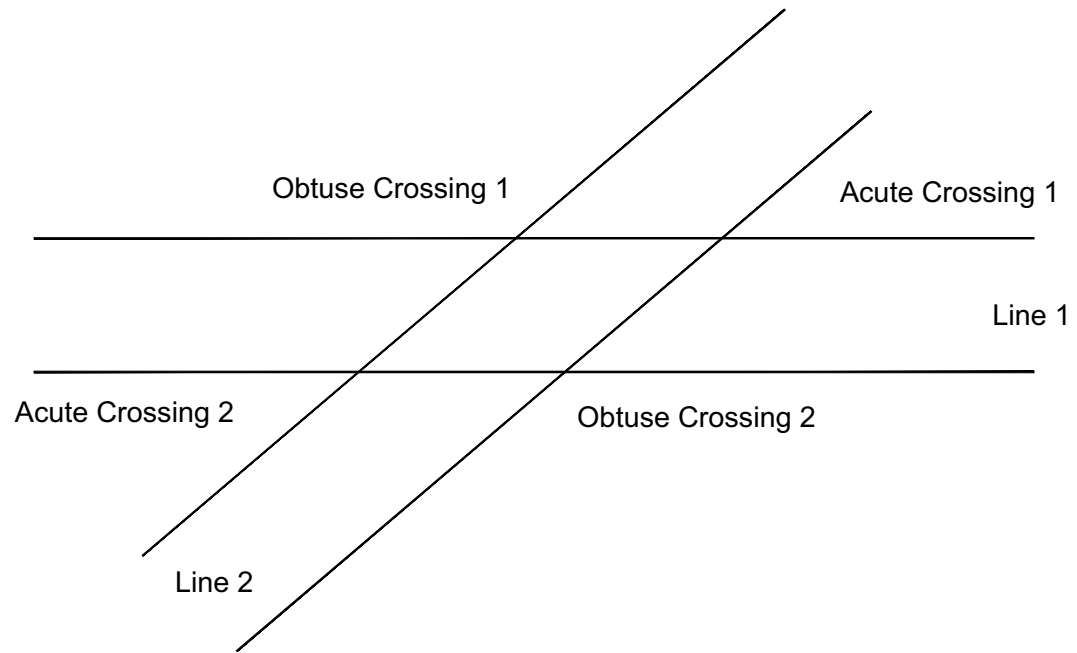
A new annexure-2/6(B),(C) and (D) and annexure-2/6/1 of Para 237(5) regarding proforma for Inspection of Diamond Crossing without Slip/With Single Slip/With Double Slip may be added to Indian Railways Permanent Way Manual.

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# DIAMOND CROSSING

Annexure-2/6(B), Para 237(5)



PROFORMA FOR INSPECTION OF POINTS AND CROSSINGS**Diamond Crossing**

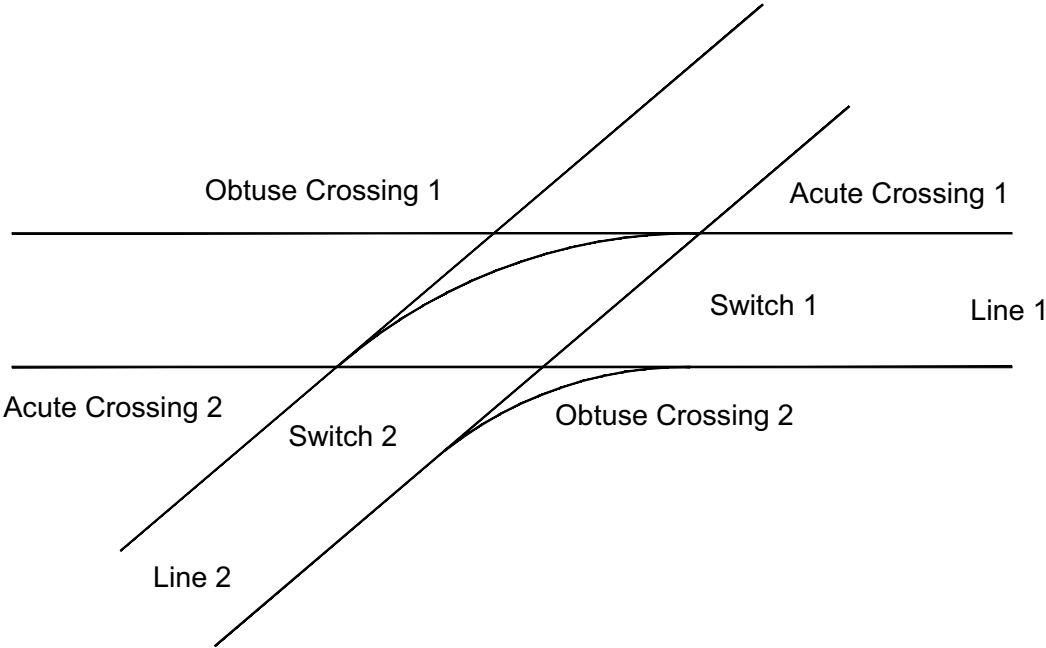
Station _____									
Point No. _____									
Location _____									
Type of rail _____									
Date of laying _____									
Date of laying reconditioned crossings : _____									
Type of sleeper/assembly _____									
Angle of crossing _____									
Nominal gauge of turnout _____									
<b>1 Sleeper Details</b>									
1.1	Condition of sleeper								
1.2	Squaring								
1.3	Spacing								
<b>2 Ballast Details</b>									
2.1	Condition of ballast								
2.2	Condition of drainage								
2.3	Ballast in shoulders and cribs								
2.4	Clean ballast cushion (mm)								
<b>3</b>	<b>Gauge and X-level between crossings</b>			Line 1		Line 2			
				Gauge	X-Level	Gauge	X-Level		
			Station 0						
			1						
			2						
			3						
			At 3 m interval in lead portion						

		4								
		5								
<b>4</b>	<b>Condition of Crossing</b>		Acute Xing 1		Acute Xing2		Obtuse Xing 1		Obtuse Xing 2	
4.1	Sign of Propogation of crack (if any)									
4.2	Burring on top surface at nose									
<b>5</b>	<b>Type of Crossing</b>									
<b>6</b>	<b>Wear of Crossing</b>		Acute Xing 1			Acute Xing 2				
			Left Wing Rail	On Nose	Right Wing Rail	Left Wing Rail	On Nose	Right Wing Rail		
			Obtuse Xing 1			Obtuse Xing 2				
			Nose 1		Nose 2		Nose 1		Nose 2	
			On Nose	Wing Rail	On Nose	Wing Rail	On Nose	Wing Rail	On Nose	Wing Rail
<b>7</b>	<b>Clearance of wing rail opposite nose of crossing and upto 450 mm towards heel end</b>		Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2	
			Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer
<b>8</b>	<b>Gauge and Cross Level</b>		Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2	
			Line 1	Line 2	Line 1	Line 2	Line 1	Line 2	Line 1	Line 2
8.1	1 m ahead of ANC	Gauge								
		X-Level								
8.2	150 mm ahead ANC	Gauge								
		X-Level								
8.3	150 mm behind ANC	Gauge								
		X-Level								
8.4	1 m behind ANC	Gauge								

		X-Level								
<b>9</b>	<b>Condition of check rail and its fittings</b>		Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2	
9.1	Raised Check Rail									
9.2	Other bearing, plates, keys, blocks, bolts and elastic fastening									
<b>10</b>	<b>Check Rail Clearance</b>		Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2	
			Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer
10.1	Opposite ANC									
10.2	500 mm ahead towards toe of crossing									
10.3	500 mm behind heel of crossing									
10.4	At the flared end towards heel									
10.5	At the flared end towards toe									
<b>11</b>	<b>Remarks</b>									

**DIAMOND CROSSING: WITH SINGLE SLIP**

Annexure-2/6(C) Para 237(5)



PROFORMA FOR INSPECTION OF POINTS AND CROSSINGS**Diamond Crossing: with single slip**

Station _____							
Point No. _____							
Location _____							
Type of rail _____							
Date of laying _____							
Date of laying reconditioned crossings : _____							
Date of laying reconditioned switches : _____							
Type of sleeper/assembly _____							
Angle of crossing _____							
Nominal gauge of turnout _____							
<b>1</b>	<b>Sleeper Details</b>						
1.1	Condition of sleepers						
1.2	Squaring						
1.3	Spacing						
<b>2</b>	<b>Ballast Details</b>						
2.1	Condition of ballast						
2.2	Condition of drainage						
2.3	Ballast in shoulders and cribs						
2.4	Clean ballast cushion (mm)						
<b>3</b>	<b>Condition of Switch Assembly</b>		<b>Switch 1</b>	<b>Switch 2</b>			
3.1	Whether chipped or cracked over 200 mm length within 1000 mm from ATS	Inner					
		Outer					
3.2	Whether twisted or bent (causing gap of 5 mm	Inner					

	or more at toe)		Outer							
3.3	Whether knife edge		Inner							
			Outer							
			Inner							
3.4	Seating of tongue rails on slide chairs		Outer							
			Inner							
3.5	Housing of stock and tongue rails		Outer							
			Inner							
3.6	Condition of fitting of switches									
3.7	Packing condition under switch assembly									
<b>4</b>	<b>Creep at toe of switch</b>									
<b>5</b>	<b>Throw of Switch at ATS</b>		Inner							
			Outer							
<b>6</b>	<b>Divergence At Heel Block</b>		Inner							
			Outer							
<b>7</b>	<b>Straightness of Straight ( Measured on 10 mt. chord)</b>		Stock Rail							
			Tongue Rail							
<b>8</b>	<b>Wear in Tongue Rail and Stock Rail</b>			<b>Switch 1</b>		<b>Switch 2</b>				
				<b>Inner</b>	<b>Outer</b>	<b>Inner</b>	<b>Outer</b>			
8.1	Tongue Rail	At point with 13 mm head width (as per Annexure 2/6/1)	Vertical							
			Lateral							
8.2	Tongue Rail	At point where tongue rail and stock rail level is same	Vertical							
			Lateral							
8.3	Stock Rail	At point where tongue rail and stock rail level is same	Vertical							
			Lateral							
<b>9</b>	<b>Distance between gauge faces of stock rails at JOH</b>			<b>Switch 1</b>		<b>Switch 2</b>				
<b>10</b>	<b>Distance between web to web of Tongue Rails</b>									
10.1	Leading stretcher bar									

10.2	Ist following stretcher bar								
10.3	IIInd following stretcher bar								
<b>11</b>	<b>Gap between top edge of stretcher bar and bottom of rail foot</b>								
11.1	Leading stretcher bar	Inner							
		Outer							
11.2	Ist following stretcher bar	Inner							
		Outer							
11.3	IIInd following stretcher bar	Inner							
		Outer							
<b>12</b>	<b>Clearance at JOH</b>								
12.1	On Open tongue rail side	Straight							
		Turnout							
12.2	On Closed tongue rail side	Straight							
		Turnout							
<b>13</b>	<b>Gauge and X-Level in Switch and Lead Portion</b>	<b>Straight Side</b>				<b>Turnout Side</b>			
		<b>Switch 1</b>		<b>Switch 2</b>					
		Gauge	X-Level	Gauge	X-Level	Gauge	X-Level		
13.1	At 450 mm ahead of toe of switch								
13.2	At ATS between the two stock rails								
13.3	At 150 mm behind toe of switch								
13.4	At heel of switch								
13.5	At 3 m interval in lead portion:	<b>Station 0</b>							
		<b>1</b>							
		<b>2</b>							
		<b>3</b>							
		<b>4</b>							
		<b>5</b>							

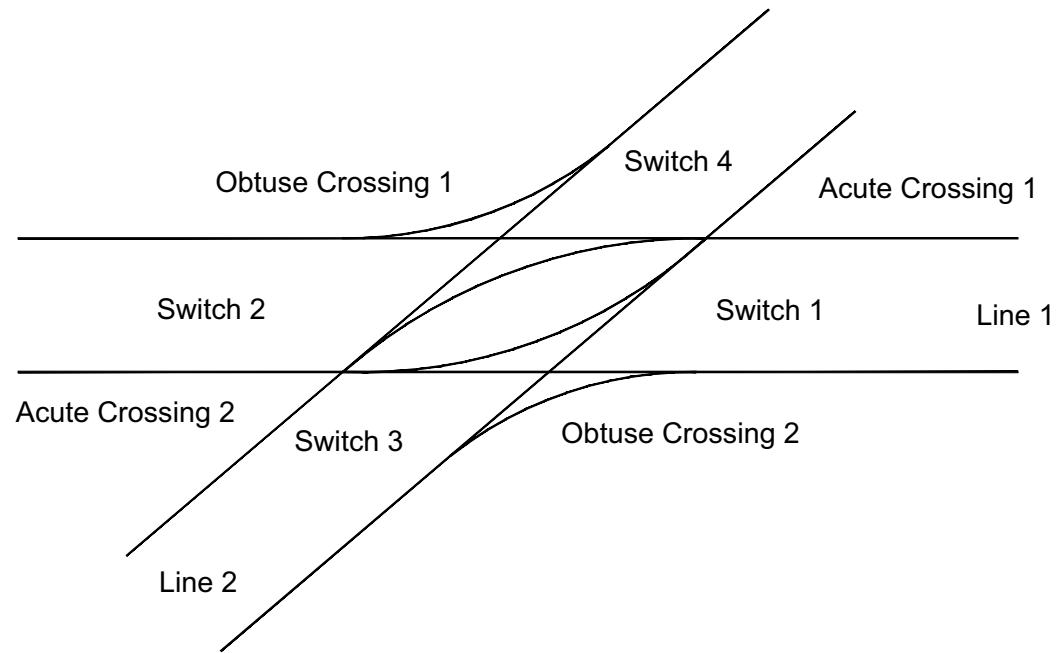


<b>14</b>	<b>Versine in Switch and Lead Portion</b>		<b>Switch 1 and Switch 2</b>											
			Inner				Outer							
			(Heel/ATS) 0											
			1											
			2											
			3											
			4											
		5												
<b>15</b>	<b>Condition of Crossing</b>			Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2				
15.1	Sign of Propagation of crack (if any)													
15.2	Burring on top surface at nose													
<b>16</b>	<b>Type of Crossing</b>													
<b>17</b>	<b>Wear of Crossing</b>			Acute Xing 1				Acute Xing 2						
				Left Wing Rail	On Nose	Right Wing Rail	Left Wing Rail	On Nose	Right Wing Rail					
				Obtuse Xing 1				Obtuse Xing 2						
				Nose 1		Nose 2		Nose 1		Nose 2				
				On Nose	Wing Rail	On Nose	Wing Rail	On Nose	Wing Rail	On Nose	Wing Rail			
<b>18</b>	Clearance of wing rail opposite Nose of crossing and upto 450 mm towards heel end			Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2				
				Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer			
<b>19</b>	<b>Gauge and Cross Level</b>			Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2				
				Straight	Turnout	Straight	Turnout	Straight	Turnout	Straight	Turnout			
19.1	1 m ahead of ANC		Gauge											
			X-Level											

19.2	150 mm ahead ANC	Gauge								
		X-Level								
19.3	150 mm behind ANC	Gauge								
		X-Level								
19.4	1 m behind ANC	Gauge								
		X-Level								
<b>20</b>	<b>Condition of check rail and its fittings</b>		Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2	
20.1	Raised Check Rail									
20.2	Other bearing, plates, keys, blocks, bolts and elastic fastening									
<b>21</b>	<b>Check Rail Clearance</b>		Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2	
			Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer
21.1	Opposite ANC									
21.2	500 mm ahead towards toe of crossing									
20.3	500 mm behind heel of crossing									
20.4	At the flared end towards heel									
20.5	At the flared end towards toe									
<b>22</b>	<b>Remarks</b>									

**DIAMOND CROSSING: WITH DOUBLE SLIP**

Annexure-2/6(D) Para 237(5)



PROFORMA FOR INSPECTION OF POINTS AND CROSSINGS**Diamond Crossing: with Double Slip**

Station _____							
Point No. _____							
Location _____							
Type of rail _____							
Date of laying _____							
Date of laying reconditioned crossings : _____							
Date of laying reconditioned switches : _____							
Type of sleeper/assembly _____							
Angle of crossing _____							
Nominal gauge of turnout _____							
<b>1</b>	<b>Sleeper Details</b>						
1.1	Condition of sleepers						
1.2	Squaring						
1.3	Spacing						
<b>2</b>	<b>Ballast Details</b>						
2.1	Condition of ballast						
2.2	Condition of drainage						
2.3	Ballast in shoulders and cribs						
2.4	Clean ballast cushion (mm)						
<b>3</b>	<b>Condition of Switch Assembly</b>		<b>Switch 1</b>	<b>Switch 2</b>	<b>Switch 3</b>	<b>Switch 4</b>	

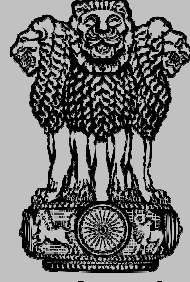
3.1	Whether chipped or cracked over 200 mm length within 1000 mm from ATS		Inner								
			Outer								
3.2	Whether twisted or bent (causing gap of 5 mm or more at toe)		Inner								
			Outer								
3.3	Whether knife edge		Inner								
			Outer								
3.4	Seating of tongue rails on slide chairs		Inner								
			Outer								
3.5	Housing of stock and tongue rails		Inner								
			Outer								
3.6	Condition of fitting of switches										
3.7	Packing condition under switch assembly										
<b>4</b>	<b>Creep at toe of switch</b>										
<b>5</b>	<b>Throw of Switch at ATS</b>		Inner								
			Outer								
<b>6</b>	<b>Divergence At Heel Block</b>		Inner								
			Outer								
<b>7</b>	<b>Straightness of Straight ( Measured on 10 mt. chord)</b>		Stock Rail								
			Tongue Rail								
<b>8</b>	<b>Wear in Tongue Rail and Stock Rail</b>			<b>Switch 1</b>		<b>Switch 2</b>		<b>Switch 3</b>		<b>Switch 4</b>	
				<b>Inner</b>	<b>Outer</b>	<b>Inner</b>	<b>Outer</b>	<b>Inner</b>	<b>Outer</b>	<b>Inner</b>	<b>Outer</b>
8.1	Tongue Rail	At point with 13 mm head width (as per Annexure 2/6/1)	Vertical								
			Lateral								
8.2	Tongue Rail	At point where tongue rail and stock rail level is same	Vertical								
			Lateral								
8.3	Stock Rail	At point where tongue rail and stock rail level is same	Vertical								
			Lateral								

9	Distance between gauge faces of stock rails at JOH		Switch 1		Switch 2		Switch 3		Switch 4	
10	Distance between web to web of Tongue Rails									
10.1	Leading stretcher bar									
10.2	Ist following stretcher bar									
10.3	IInd following stretcher bar									
11	Gap between top edge of stretcher bar and bottom of rail foot									
11.1	Leading stretcher bar		Inner							
			Outer							
11.2	Ist following stretcher bar		Inner							
			Outer							
11.3	IInd following stretcher bar		Inner							
			Outer							
				-2						
12	Clearance at JOH									
12.1	On Open tongue rail side		Straight							
			Turnout							
12.2	On Closed tongue rail side		Straight							
			Turnout							
13	Gauge and X-Level in Switch and Lead Portion		Straight Side				Turnout Side			
			Switch 1 and Switch 2		Switch 3 and Switch 4		Switch 1 and Switch 3		Switch 2 and Switch 4	
			Gauge	X-Level	Gauge	X-Level	Gauge	X-Level	Gauge	X-Level
13.1	At 450 mm ahead of toe of switch									
13.2	At ATS between the two stock rails									
13.3	At 150 mm behind toe of switch									
13.4	At heel of switch									
13.5	At 3 m interval in lead portion:		Station 0							

		<b>1</b>											
		<b>2</b>											
		<b>3</b>											
		<b>4</b>											
		<b>5</b>											
<b>14</b>	<b>Versine in Switch and Lead Portion</b>	<b>Switch 1 and Switch 3</b>				<b>Switch 2 and Switch 4</b>							
		Inner		Outer		Inner		Outer					
		(Heel/ ATS) 0											
		<b>1</b>											
		<b>2</b>											
		<b>3</b>											
		<b>4</b>											
		<b>5</b>											
<b>15</b>	<b>Condition of Crossing</b>		Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2				
15.1	Sign of Propagation of crack (if any)												
15.2	Burring on top surface at nose												
<b>16</b>	<b>Type of Crossing</b>												
<b>17</b>	<b>Wear of Crossing</b>		Acute Xing 1			Acute Xing 2							
			Left Wing Rail	On Nose	Right Wing Rail	Left Wing Rail	On Nose	Right Wing Rail					
				Obtuse Xing 1			Obtuse Xing 2						
				Nose 1		Nose 2		Nose 1		Nose 2			
				On Nose	Wing Rail	On Nose	Wing Rail	On Nose	Wing Rail	On Nose	Wing Rail	On Nose	Wing Rail
<b>18</b>	Clearance of wing rail opposite Nose of crossing and		Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2				

		upto 450 mm towards heel end							
		Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer
19	Gauge and Cross Level	Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2	
		Straight	Turnout	Straight	Turnout	Straight	Turnout	Straight	Turnout
19.1	1 m ahead of ANC	Gauge							
		X-Level							
19.2	150 mm ahead ANC	Gauge							
		X-Level							
19.3	150 mm behind ANC	Gauge							
		X-Level							
19.4	1 m behind ANC	Gauge							
		X-Level							
20	Condition of check rail and its fittings	Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2	
20.1	Raised Check Rail								
20.2	Other bearing, plates, keys, blocks, bolts and elastic fastening								
21	Check Rail Clearance	Acute Xing 1		Acute Xing 2		Obtuse Xing 1		Obtuse Xing 2	
		Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer
21.1	Opposite ANC								
21.2	500 mm ahead towards toe of crossing								
20.3	500 mm behind heel of crossing								
20.4	At the flared end towards heel								
20.5	At the flared end towards toe								
22	Remarks								





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भारत सरकार  
रेल मंत्रालय  
(रेलवे बोर्ड)

**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)**

**INDIAN RAILWAYS  
BRIDGE MANUAL  
1998**

# INDIAN RAILWAYS BRIDGE MANUAL

EDITION – 1998

ADVANCE CORRECTION SLIP NO. 26 Dated 23.08.2013

(i) Existing Para 217.2 (a)(ii) is to be replaced as below:

**217.2 (a)(ii)**

Finishing Coat:

Two cover coats of paint to IS:13607 with colour/shade to be specified by Zonal Railway or any other approved paint applied over the primer coats.

Note: (i) The colour/shade of finishing coat should be generally matching with the Smoke Grey colour/shade No. ISC 692 mentioned in IS:5-2004.

(ii) The colour/shade can be changed by CBE as per the local requirements.

(ii) Existing Para 217.2 (c) is to be replaced as below:

**Para 217.2 (c)**

In case where the priming coat is in good condition the steel work is painted with two coats of paint to IS:13607 with colour/shade to be specified by Zonal Railway or paint aluminium to IS:2339 depending on the severity of corrosion.

Note: (i) The colour/shade of finishing coat should be generally matching with the Smoke Grey colour/shade No. ISC 692 mentioned in IS:5-2004.

(ii) The colour/shade can be changed by CBE as per the local requirements.

(iii) Existing Para 217.4(c) is to be replaced as below:

**Para 217.4(c)**

Para deleted

(iv) Existing Para 217.4(d) is to be replaced as below:

**Para 217.4(d)**

While painting with IS: 13607, a little quantity of same paint of other shade shall be added to the paint while doing the first coat to distinguish it from the second coat. Similarly, in the case of aluminium paint a little blue paint can be added for 1<sup>st</sup> coat.

**(v) Existing Para 217.4(e) is to be replaced as below:**

**Para 217.4(e)**

Paints should be used within the prescribed shelf life from the date of manufacture. The quantity of paint procured should be such that it is fully utilised before the period prescribed for its use. The shelf life of various paints used in the Railways are as follows:

- i) Paint Ready mixed Zinc Chrome Primer (IS : 104): 1 Year
- ii) Paint to IS:13607 with colour/shade to be specified by Zonal Railway: 1 year
- iii) Paint aluminium:
  - When paste and oil are not mixed: 1 year
  - When paste and oil are mixed: 4 months
- iv) Oil linseed boiled: 2 years
- v) Paint ready mixed Red Oxide Zinc Chrome (IS:2074): 1 year
- vi) Red Oxide Zinc Chromate Primer (IRS-P-31): 1 year.

**(vi) Existing Para 217.4(l) is to be replaced as below:**

**Para 217.4.(l)**

Each coat of paint shall be left to dry till it sufficiently hardens before the subsequent coat is applied.

**(vii) Existing Para 615 is to be replaced as below:**

**Para 615**

**Preparation of surface:**

The surface of steel work should be carefully prepared by removing mill scales, rust, grease etc. using wire brushes, sand or grit blasting as required.

The surfaces and locations which will be in permanent contact after assembly by riveting should be given a heavy coat of red oxide zinc chrome priming to IS: 2074.

\*\*\*\*\*





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GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS

**INDIAN RAILWAYS TRACK MACHINE  
MANUAL - 2000**

**RESEARCH DESIGNS AND STANDARDS ORGANISATION  
LUCKNOW 226 001**

2  
6/9/13

**CORRECTION SLIP  
TO  
INDIAN RAILWAY TRACK MACHINE MANUAL  
MARCH 2000**

**Correction Slip No. 12**

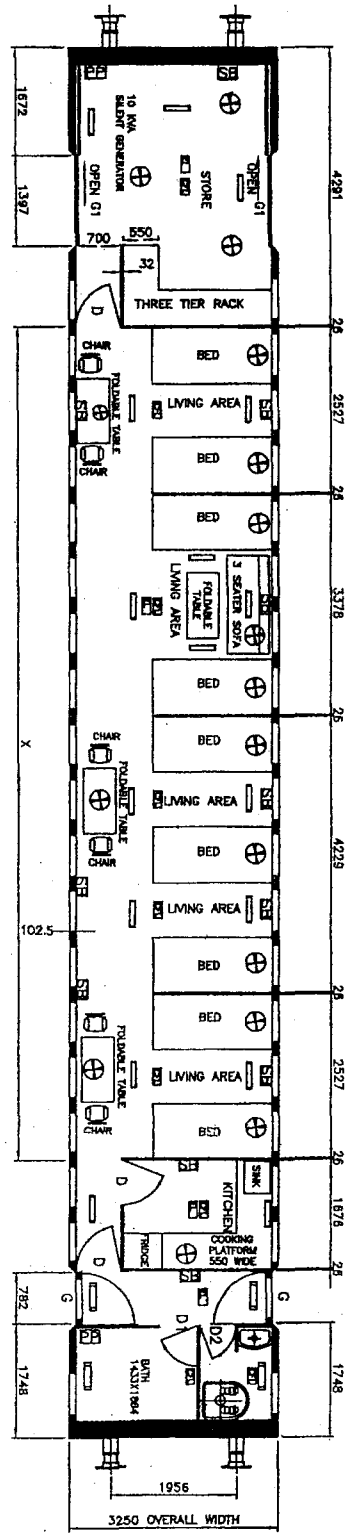
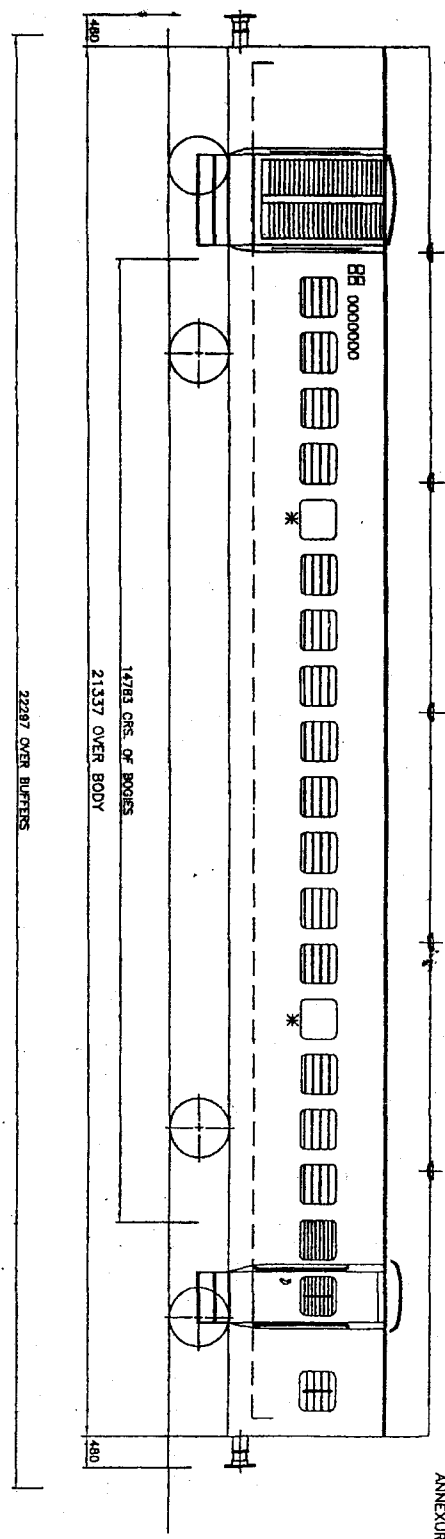
- The annexure 8.2 as given on page 205 of Indian Railways Track Machine Manual-2000 may be replaced with annexure 8.2.1, 8.2.2, 8.2.3, 8.2.4, 8.2.5, 8.2.6 & 8.2.7 and a new annexure 8.3 may be added. These annexures are enclosed with this correction slip.
- Table 6.2 in paragraph no 6.3.5 given at page number 183 is modified as per table 6.2 enclosed with this correction slip.
- In para 8.4.5, the mention of "annexure 8.2" within bracket in last sentence is replaced with "Annexure 8.2.1, 8.2.2, 8.2.3, 8.2.4, 8.2.5, 8.2.6, 8.2.7 & Annexure 8.3"



**Modified Table 6.2**

<b>S. No.</b>	<b>Items</b>	<b>Quantity</b>
1.	Welding plant	1
2.	Bench grinder	1
3.	Bench vice and a work table	1
4.	Drill machine	1
5.	Tool kit	1
6.	Portable filter	1
7.	Portable crimping machine	1
8.	Hot air blowers	1
9.	Digital Multimeter	1
10.	Accumulator pressure checking and filling device PC-250 complete	1 set
11.	Torque wrench	1 set
12.	Pendulum calibration pads.	1 set
13.	Versine measuring chord	1
14.	Go-No-Go gauge for tamping tynes	1
15.	Tamping tool profile bore gauge	2
16.	Steel scale 1' to 6''	1 set
17.	Taper gauge upto 1''	1
18.	Feeler gauge	1
19.	Thread gauge	1
20.	Cell Tester (battery voltage)	1

*pe*



SYMBOL :-

- ⊕ SLINK IN TUBE LIGHT SHALL BE PROVIDED IN FALSE CEILING.
- ⊕ BRACKET FAN SHALL BE MOUNTED ON WALL.
- ⊕ SWITCH BOARD SHALL BE PROVIDED ON WALL.
- ⊕ POWER POINT SHALL BE PROVIDED ON WALL.
- ⊕ 10 W EMERGENCY LIGHT
- ⊕ 15 W CRT ROOF SINKEN

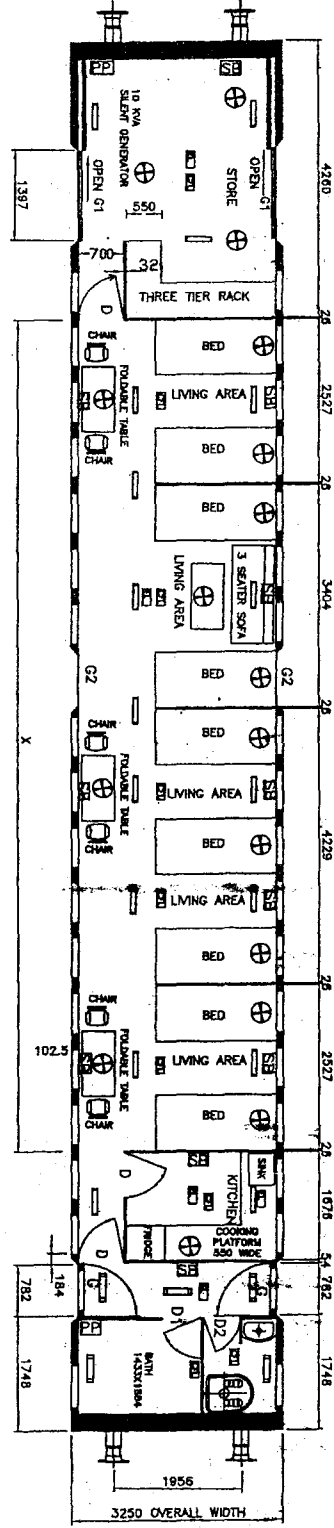
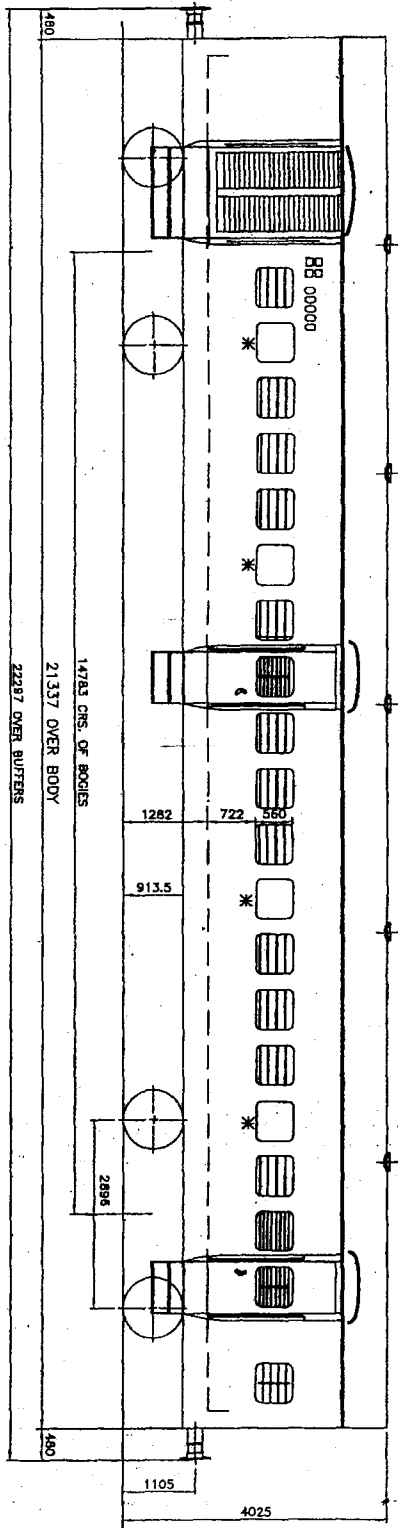
- X - THE APPROVAL ROOF CEILING (FALSE CEILING) SHALL BE PROVIDED FOLLOWING THE SLOPE DIMENSION OF EXISTING ROOF CEILING WITH MINIMUM HEIGHT OF 2400mm AT THE CENTRE FROM FLOOR LEVEL.
- G1 - SLEEPING DOOR AS PER DESIGN IN PARCEL VANS.
- G2 - NORMAL COACH DOOR.
- D - CLOSED COACH DOOR.
- D/B1/D2 - SINGLE LEAF COACH DOORS OF LIGHT MATERIAL SHALL BE PROVIDED WITH AUTO DOOR.
- \* EMERGENCY WINDOW

3. MINOR CHANGES IN THE LAYOUT NECESSARY AS PER REQUIREMENTS MAY BE CARRIED OUT WITH THE APPROVAL OF CHIEF ENGINEER.
2. TOTAL THREE EXHAUST FAN TO BE PROVIDED ONE IN EACH FOR STORE, KITCHEN AND TOILET.
1. ALL DIMENSIONS ARE IN MM

NOTES

RDSO SPECIFICATION	SCALE	ALT	DESCRIPTION	AUTHY	DRG. No. RDSO/TM/02/11
--------------------	-------	-----	-------------	-------	------------------------

R.	D.	S.	O.
CAMP COACH FOR TRACK MACHINES STAFF ON SLEEPER COACH BASED ON RDSO DRG. NO. CSC-1640 OR SIMILAR CODE-(RCC)			
CANG./SUPED			
REVED.			



SYMBOL :-

- ⊕ SUNK IN TUBE LIGHT SHALL BE PROVIDED IN FALSE CEILING.
- ⊕ BRACKET FAN SHALL BE MOUNTED ON WALL.
- ⊕ SWITCH BOARD SHALL BE PROVIDED ON WALL.
- ⊕ POWER POINT SHALL BE PROVIDED ON WALL.
- ⊕ 10 W EMERGENCY LIGHT
- ⊕ 19 W CFL ROOF SUNKEN

- x - THE ADDITIONAL ROOF CEILING (FALSE CEILING) SHALL BE PROVIDED FOLLOWING THE SHAPE CURVATURE OF EXISTING ROOF CEILING WITH MINIMUM HEIGHT OF 2400mm AT THE CENTRE FROM FLOOR LEVEL.
- G1 - SLIDING DOOR AS PER DESIGN IN PARCEL VANS.
- G2 - CLOSED COACH DOOR.
- D/D/1/D2 - SINGLE LEAF HINGED DOORS OF LIGHT MATERIAL SHALL BE PROVIDED WITH AUTO DOOR CLOSING SYSTEM. THE DOOR WIDTH SHALL BE 700/600/ 520mm, RESPECTIVELY.
- \* EMERGENCY WINDOW

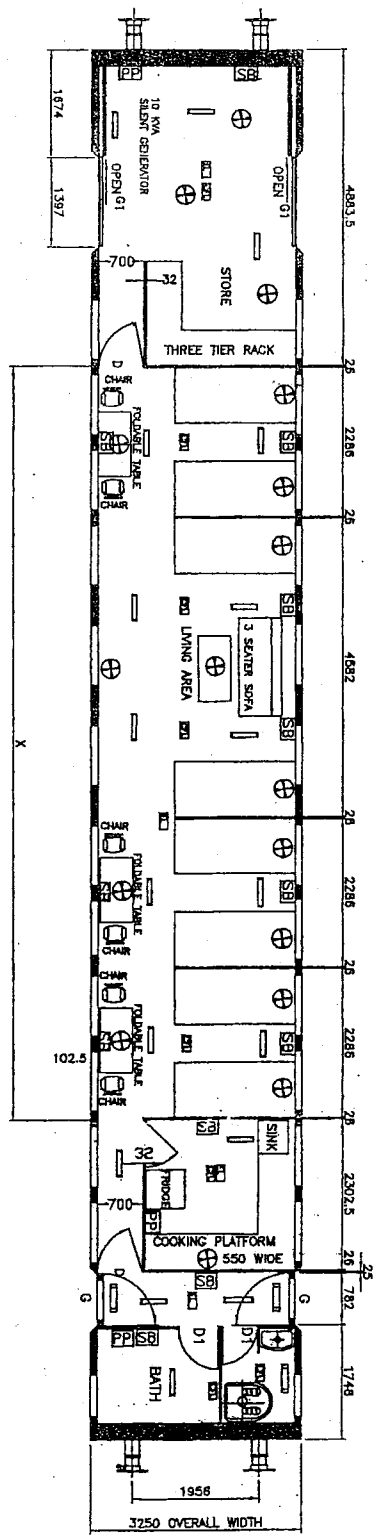
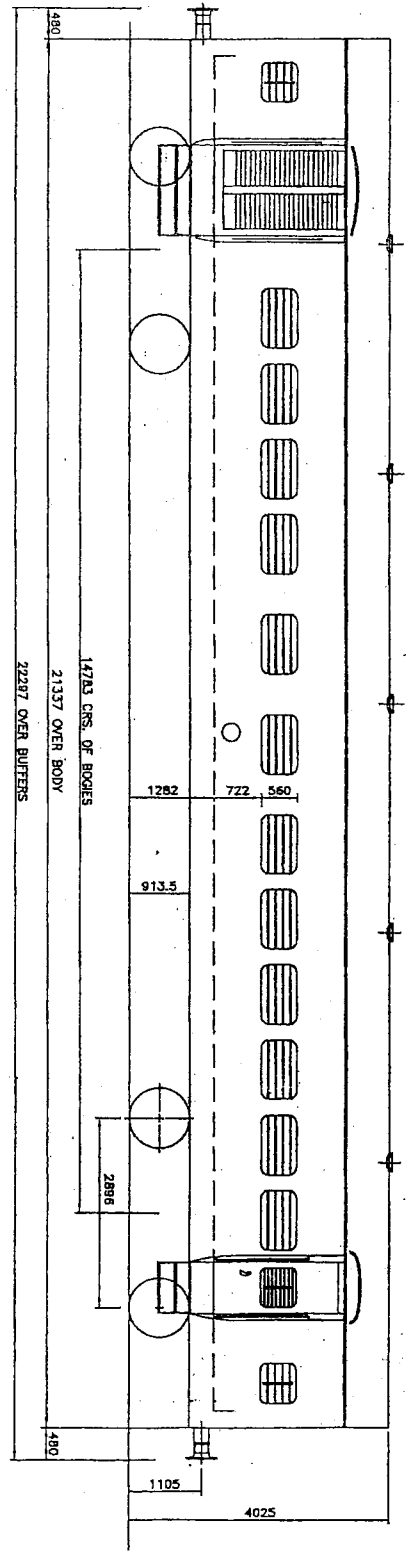
3. MINOR CHANGES IN THE LAY OUT NECESSARY AS PER LOCAL REQUIREMENTS MAY BE CARRIED OUT WITH THE APPROVAL OF PRINCIPAL CHIEF ENGINEER.
2. ALL DIMENSIONS ARE IN MM.
1. ALL DIMENSIONS ARE IN MM.

N O T E S

SPECIFICATION	SCALE	ALT	DESCRIPTION	AUTHY	DRG. No. RDSO/TM/01/11
RDSO SPECIFICATION					

CANC/SUPED	R.	D.	S.	O.
REV'D				
CAMP COACH FOR TRACK MACHINES STAFF ON GS COACH BASED ON RDSO DRG. NO. GSC-1592 OR SIMILAR (CODE-ROO)				





SYMBOL :-

- ⊕ SUNK IN TUBE LIGHT SHALL BE PROVIDED IN FALSE CEILING.
- ⊕ BRACKET FAN SHALL BE MOUNTED ON WALL.
- ⊕ SWITCH BOARD SHALL BE PROVIDED ON WALL.
- ⊕ POWER POINT SHALL BE PROVIDED ON WALL.
- ⊕ 10 W EMERGENCY LIGHT
- ⊕ 15 W CFL ROOF SUNKEN

- X - THE ADDITIONAL ROOF CEILING (FALSE CEILING) SHALL BE PROVIDED FOLLOWING THE TAKE CURRENT OF EXISTING ROOF CEILING WITH MINIMUM HEIGHT OF 2400mm AT THE CORNER OF THE BUILDING.
- G1 - SLIDING DOOR AS PER DESIGN IN PARCEL VANS.
- G2 - NORMAL COACH DOOR.
- D/D1/D2 - CLOSED COACH DOOR.
- D/D1/D2 - SINGLE LEAF HINGED DOORS OF LIGHT MATERIAL SHALL BE PROVIDED WITH AUTO DOOR CLOSING SYSTEM. THE DOOR WIDTH SHALL BE 700/800/ 820mm RESPECTIVELY.

3. MINOR CHANGES IN THE LAYOUT NECESSARY AS PER LOCAL REQUIREMENTS MAY BE CARRIED OUT WITH THE APPROVAL OF PRINCIPAL CHIEF ENGINEER.
2. TOTAL THREE EXHAUST FAN TO BE PROVIDED ONE IN EACH FOR STORE, KITCHEN AND TOILET.
1. ALL DIMENSIONS ARE IN MM

N O T E S

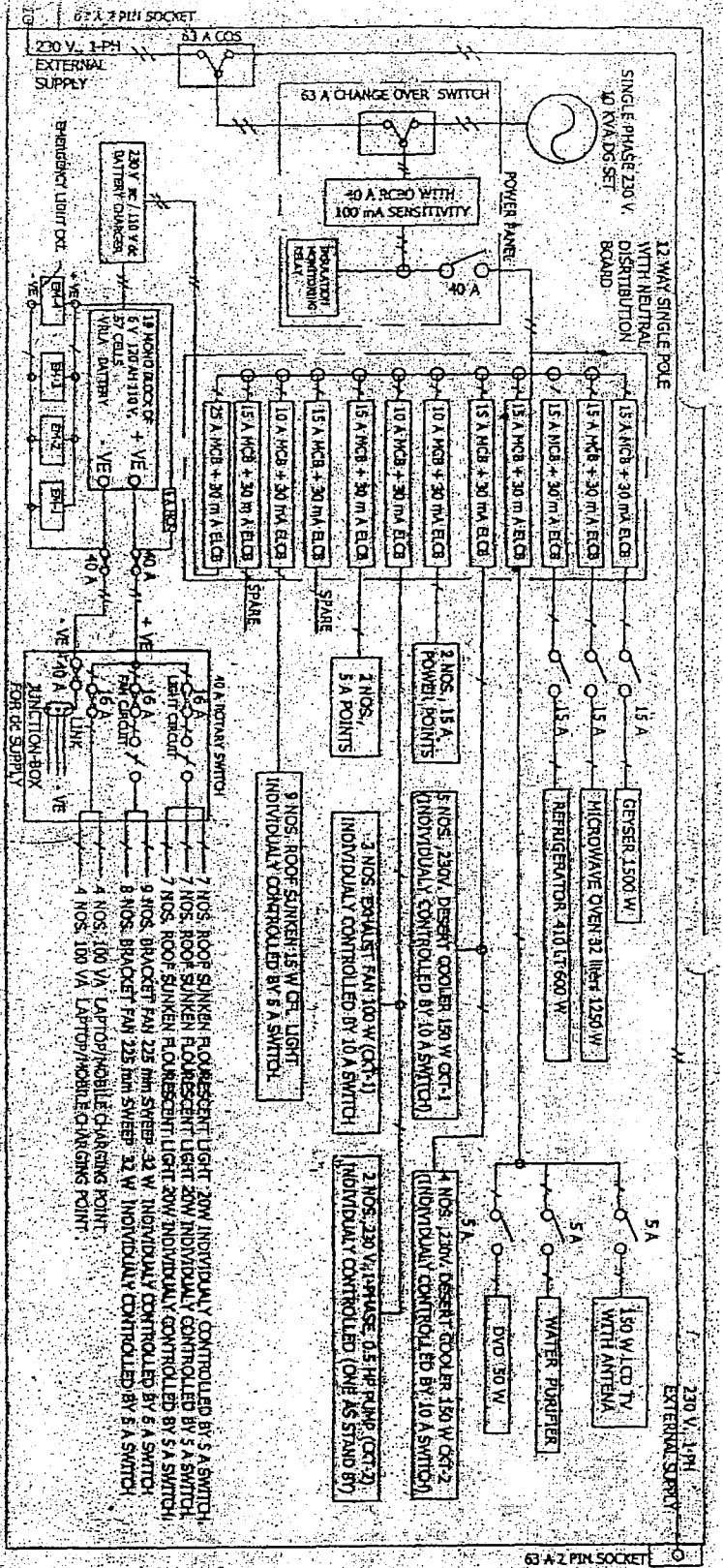
SPECIFICATION	SCALE	ALT	DESCRIPTION	AUTHY
				DRG. No. RDSO/TM/03/11

DRG. NO. RDSO/TM/03/11	DATE/REVISED
R. D. S. O.	REVISED
CAMP COACH FOR TRACK MACHINES ON FIRST CLASS COACH BASED ON RDSO DRG.NO.CSC-1886 OR SIMILAR CODE-RCC	

## AMMENITIES TO BE PROVIDED IN CAMP COACH

SL. NO.	DESCRIPTION	QUANTITY
A.	<b>KITCHEN</b>	
1.	Fire extinguisher	02 nos.
2.	Commercial Gas Connection with double cylinder	01 set
3.	Four burner LPG Gas stove	01 no.
4.	RO+UV water purifier	01 no.
5.	Refrigerator-410 lit. capacity	01 no.
6.	Dinner set	01 no.
7.	Thermos 02 lit. cap.	02 nos.
8.	Gas Lighter	02 nos.
9.	Presser cooker 5 lit. cap	01 no.
10.	Presser cooker 3 lit. cap.	01 no.
11.	Casserole 10" dia.	04 nos.
12.	Bhagona Copper base as per required sizes	04 nos.
13.	Plate steel 12" dia.	10 nos.
14.	Kadhaee	02 nos.
15.	Spatula (Karchhul) of various sizes	03 nos.
16.	Service spoon Big	03 nos.
17.	Service spoon small	03 nos.
18.	Service bowl big	03 nos.
19.	Gripper	02 nos.
20.	Tea mug	12 nos.
21.	Stainless Steel Spice Box	01 no.
22.	Stainless steel Container 2 lit.	06nos.
23.	Stainless Steel Container for Floor 15 lit.	01 no.
24.	Stainless Steel Container for Rice 15 lit.	01 no.
25.	Stainless Steel Container for water 20 lit.	01 no.
26.	Stainless Steel Bucket 15 lit.	01 no.
27.	Hot chapatti case	02 nos.
28.	Sink	01 no.
29.	Stool for work	02 nos.
30.	Tea set	01 no.
31.	Tea Strainer (Stainless Steel)-4"	01 no.
32.	Tea spoon	12 nos.
33.	Stainless Steel Utensil Stand (Wall Hanging)	01 no.
34.	Stainless Steel Sauce-Pan (Copper Base) 1 lit.	01 no.
35.	Hot plate iron (Tawa)-12"with handle	01 no.
36.	Pastry Board (Chakla) 10"	01 no.
37.	Pastry Roller (Belna)	01 no.
38.	Fridge water Bottle 1 lit.	6 no.
39.	Dustbin	1 no.

SL.NO.	DESCRIPTION	QUANTITY
<b>B.</b>	<b>LIVING AREA</b>	
1.	LCD/LED Television 28"	01 no.
2.	Satellite antenna for TV (DTH)	01 no.
3.	230V AC Desert cooler	06 nos.
4.	Lap Top	01 no.
5.	Foldable tubular chairs	06 nos.
6.	Folding tables- 1000 x 500 mm.	03 nos.
7.	Wooden Centre Table 1000X500 mm.	01 no.
8.	Radio/Audio Player	01 no.
9.	Pillow Durafoam/Sleepwell	10 nos.
10.	Pillow cover	20 nos.
11.	Curtain	on each window
12.	Bed sheets (Single Bed)	20 nos.
13.	Mosquito net	10 nos.
14.	Woolen Blanket (Raymond)	10 nos.
15.	Sofa	One 3 seater as per the space available.
16.	Insulated Water jug 10 lit. cap	02 nos.
<b>C.</b>	<b>BATH AREA</b>	
1.	Geyser 20 lit. cap.	01 no.
2.	Bucket 20 lit. capacity	06 nos.
3.	Mug	02 nos.
4.	Aluminium/Stainless Steel Stool	02 nos.
<b>D.</b>	<b>STORE</b>	
1.	Welding set 5 KVA	01 no.
2.	Water lifting pump	02 nos.
3.	Portable Drilling machine	01 no.
4.	Portable grinding machine	01no.
5.	Diesel filling pump	01 no.
6.	Silent DG set 10 KVA	01 no.
7.	Foulding Cot (Single Bed)	



- NOTE:-**
1. COACH BODY TO BOGIE, BOGIE TO AXLE AND EACH ELECTRICAL EQUIPMENT SHALL BE SOLIDLY EARTH AT MINIMUM TWO POINTS.
  2. 230 V., 3-PIN-5/15 A Plug Socket WITH SWITCH OF APPROVED MAKE (GCF/RCE) SHALL BE USE.
  3. 230 V. CABLES IN SUPER STRUCTURE AND UNDER FRAME SHALL BE LAID IN FLEXIBLE POLY ANIDE CONDUITS. POLY ANIDE CONDUITS AND ITS ACCESSORIES SHALL BE AS PER RDSO SPECN. NO. RDSO/ PE/ SPEC/ AC/ 0158-2009 (REV. '0').
  4. DISTRIBUTION BOX AS IN AC COACH SHALL BE PROVIDED IN PLACE OF EXISTING DISTRIBUTION FUSE BOARD, SO THAT 230V AC AND 110 V DC WIRING CAN BE DONE.
  5. SYSTEM SPECIFICATION AND CODE OF PRACTICE FOR WIRING FOR 110 V. DC SELF GENERATION TRAIN LIGHTING SYSTEM NO. EY/TL/48-2005 (REV. '11') AND "CODE OF PRACTICE FOR TRAIN LIGHTING MAINTENANCE ON PREVENTION OF FIRE NO. EL/TL/56 SHALL BE STRICTLY FOLLOWED FOR COACH WIRING.
  6. CODE OF PRACTICE FOR PREVENTION OF FIRE IN AC COACHES RDSO/PE/O/0098-2008 (REV. '01') FOR 230 V. WIRING SHALL BE FOLLOWED FOR COACH WIRING.
  7. ALL CABLES ARE OF THIN WALLED FLEXIBLE SINGLE CORE E-BEAM WITH COPPER CONDUCTOR AS PER RDSO SPECIFICATION NO. EIR/SPEC/EL/G/0019-OF FEB., 2011.
  8. 110 V. DC WIRING SHALL BE CARRIED IN UNDER FRAME IN GALVANISED RIGID STEEL CONDUITS AS PER IS: 9537-PART II.
  9. INSULATION MONITORING RELAY (IMR) OF SUITABLE RATING AND APPROVED MAKE (GCF / RCF) SHALL BE PROVIDED.
  10. NO PROTECTION DEVICE LIKE (MCG, CUM ELCB) / RCBO & IHR SHALL BE BY-PASSED IN ANY CONDITION.
  11. ALL ELECTRICAL APPLIANCES OF REPUTED MAKE SHALL BE PROVIDED.
  12. NO HEATER / ROOM HEATER TO BE CONNECTED IN ANY POWER POINT.
  13. DGS SET AS WELL AS COACH PANEL SHALL BE OPERATED BY A QUALIFIED ELECTRICIAN.
  14. 4 NOS. DCP TYPE FIRE EXTINGUISHERS TO BE PROVIDED IN CAMPING COACH.

CABLE CHART

FEMAM SPECIFICATION NUMBER/REV. DATE	DATE
215 SQ. MM	4 SQ. MM
SUBS	

REF: EL/6.9.12/SYSTEM SCALE: NTS APPROVED BY: (FOR DGS)

GENERAL SCHEMATIC SINGLE LINE WIRING DIAGRAM FOR CONVERSION OF GS SCH. 1st CLASS NON-AC COACHES INTO CAMPING COACH (WITH 10 KVA DGS SET, 230 V, 22 SUPPLY AND 110 V, DC SUPPLY)

RDSO/PE/SK/TL/0161-2011 (REV. '01')

SUPERSEDED BY

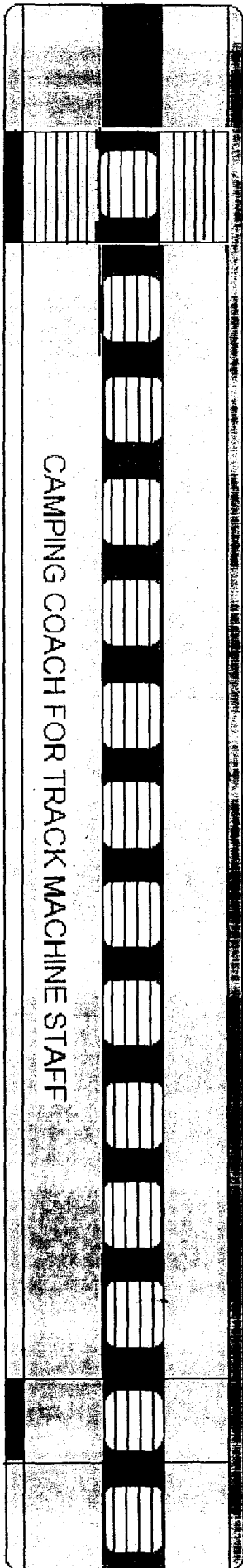
STATUS	REV/ALT	REF. NO.	DESCRIPTION	APPRD BY	DATE






## PAINT SCHEME FOR CAMP COACH

Following painting system shall be followed:

- |   |                      |
|---|----------------------|
| 1. Grit blasting  |                      |
| 2. Isophthalic putty  |                      |
| 3. Primer red oxide zinc chromate to IS: 2074   | One coat             |
| 4. Filler grey to IS:110  | One coat             |
| 5. Knifing stopper (Putty) to IS:5083   | 1 <sup>st</sup> coat |
| 6. Wet rubbing  |                      |
| 7. Knifing stopper (Putty) to IS:5083   | 2 <sup>nd</sup> coat |
| 8. Wet rubbing  |                      |
| 9. Necessary putty  |                      |
| 10. Wet rubbing   |                      |
| 11. Filler grey to IS:110   | 2 <sup>nd</sup> coat |
| 12. Dry rubbing   |                      |
| 13. Undercoat, synthetic enamel to IS:8662  | One coat             |
| 14. Dry rubbing   |                      |
| 15. Finish coat, Synthetic enamel to IS:8662  | One coat             |
| 16. Glaze coat (1:1 mixture of synthetic enamel to IS:8662<br>& Synthetic clear varnish to IS: 524) |                      |
| 17. Lettering   |                      |





-  Gray
-  Golden Yellow
-  Indigo
-  Light Turquoise
-  Black

### **Annexure-8.3**

The camp coach shall be provided with Air Brake System. The coupling to be provided shall be normal IR standard screw coupling. The following modification work for non-AC Camping Coaches shall be performed in standard coach as per Annexure 8.2.1, 8.2.2 and 8.2.3 and the amenities shall be provided as per annexure-8.2.4. The drawing in Annexure-8.2.1, 8.2.2 & 8.2.3 and amenities suggested vide Annexure-8.2.4 is only for guidance purposes and Railways may decide to have different drawing & amenities as per their local requirements. Railway may convert selective cabin/cabins into Air Conditioned cabin/cabins as per requirement. In this respect, electrical circuit may be modified accordingly.

#### **1.0 LIVING AREA:**

The living area in the proposed layouts is marked as 'X'.

- 1.1 Additional roof ceiling (False ceiling) shall be provided following the same curvature of existing roof ceiling with minimum height of 2400 mm at centre from floor level. This will reduce the heat in the coach.
- 1.2 Beds shall be provided at the level of lower berths as in 1<sup>st</sup> AC coaches
- 1.3 The size of beds shall be 1850 X 850 mm and should be box type with cushion top as in 1<sup>st</sup> AC coaches.
- 1.4 The beds shall be boxed type and can be open in upward direction to accommodate linen items etc.
- 1.5 Upper existing berths shall be removed.
- 1.6 In place of upper existing berths, wooden cabinets shall be provided of size 1850x300x300 mm (approx) above all the beds just below the false ceiling
- 1.7 Flooring in this area shall be of same standard as in the 1<sup>st</sup> AC class.
- 1.8 Sofa, tables and chairs shall be provided as shown in the drawing.

#### **2.0 KITCHEN:**

- 2.1 Layout and dimensions shall be as per annexure no. 8.2.1, 8.2.2 and 8.2.3.
- 2.2 Granite/Marble top shall be provided on cooking platform (550 mm wide).
- 2.3 One of the existing water tanks of the coach shall be used for water arrangement.
- 2.4 One exhaust fan shall be provided at suitable location.

#### **3.0 BATHING AREA & TOILET:**

- 3.1 One of the existing water tanks of the coach shall be used for bathroom water arrangement. Complete bath fittings as available in AC 1<sup>st</sup> Class coach, shall be provided in bathing area.
- 3.2 The toilet shall be of 'bio-toilet' type being used in Indian Railways. In this regard Schedule of Tech. Requirement no. C-9908 Rev.1 issued by RDSO may be followed as guidelines.

#### **4.0 ELECTRIFICATION PLAN:**

The electric supply arrangement shall be as in annexure-8.2.5.

4.1 Battery blocks provided with the coach shall be utilized as it is, except the self generating equipment and alternator. In place of these, a 230V AC/110V DC battery charger will be provided for the purpose of charging of coach batteries. The coach electrification shall be from following three source of supply.

4.1.1 Electricity may be obtained from outside supply available at Railway stations/Sidings.

4.1.2 A 3-phase 10KVA silent DG set will be housed in camp coach for fulfilling the requirement of electricity.

4.1.3 In case of failure of batteries, there shall be the provision of 9 roof sunken CFL to be illuminated by AC supply.

4.2 The electrical appliances/fittings to be provided in camp coach are being listed below.

4.2.1 Fluorescent lights roof Sunk in- 21 nos.

4.2.2 Brackets fans 225mm – 17 nos.

4.2.3 Roof sunk in lights (CFL-15W) – 09 nos.

4.2.4 Exhaust fan – 03 nos.

4.2.5 Power point 15A – 02 nos.

4.2.6 Plug point –02 nos.

4.2.7 Emergency lights-04 nos.

#### **5.0 STORE MANAGEMENT:**

5.1 Store room shall be provided, for keeping the small spares of the machine, as shown in the camp coach layout.

5.2 This store shall be provided with cabinets/rakes at suitable height with locking arrangement.

5.3 In addition to store given in coach layout additional under slung boxes shall be created for heavy spares of the machines. These boxes shall be used for keeping empty drums, hydraulic hoses and heavy spares of the machine. The design of the boxes shall be according to the requirement for particular machine. The safety factor for welding work of the boxes shall be sufficiently high so that there shall be no failure on account of welding work.

5.4 Existing water tanks of store side shall be removed.

#### **6.0 DOORS:**

6.1 D, D1 and D2 as shown in annexure 8.2.1, 8.2.2 and 8.2.3 respectively are indicating the doors of size 700/600/520mm.

6.2 G indicates normal size of the coach gate.



- 6.3 G1 indicates the sliding doors similar to parcel van gate to accommodate the DG set and heavy store items.
- 6.4 G2 shown in annexure 8.2.1, indicates closed coach door.

**7.0 WINDOWS:**

- 7.1 Wire mesh on all windows from outside for mosquitoes/insects protection.
- 7.2 Curtains on all windows.
- 7.3 Suitable rain-shed should be provided on each window.
- 7.4 Window frames shall be sealed suitably to prevent water leaking during rain.

**8.0 PAINT SCHEME FOR CAMP COACH**

Paint scheme for camp coach shall be as per annexure-8.2.6 and the color combination for all coaches shall be followed as per the diagram attached as annexure-8.2.7. The diagram shown in the annexure 8.2.7 is only symbolic to show the color combination for coach.

\*\*\*\*\*



**Correction Slip No. 16 to Indian Railways Track Machine Manual-2000****Correction Slip 16**

Para 9.6 (ii) at Page No. 211 of Chapter 9 of IRTMM-2000 is modified and may be read as under:-

**9.6 Cash Imprest**

(ii) An adequate cash imprest (Rs. 10,000 or more) shall be provided with the officers in-charge of Satellite Depots and of machine-groups for emergency purchase and repairs of machine components, plants, tools & machinery.

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सत्यमेव जयते

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS

**INDIAN RAILWAYS SCHEDULE OF  
DIMENSIONS 1676 mm GAUGE (BG)  
REVISED - 2004**

**RESEARCH DESIGNS AND STANDARDS ORGANISATION  
LUCKNOW 226 001**

**Addendum & Corrigendum Slip (ACS) No. 13**  
To  
**Indian Railways Schedule Of Dimensions (B.G.) 2004**

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**I. Amendment To Para-10 Of Chapter-I : General**

{At Page - 6 & 7 Of IRSOD 2004 And Subsequently Revised Vide ACS No. 10}

In Schedule-I of IRSOD, Revised 2004

Para 10 shall be read as under :

**10. Height of Road Over Bridges and Foot Over Bridges :**

- (a) Minimum height above rail level for a distance of 915mm on either side of the centre of track for overhead structures : 4875 mm
- (b) Where D.C. electric traction is in use or is likely to be used, this dimension shall be : 5410 mm
- (c) Where 25 kV A.C. traction is likely to be used, the minimum height above rail level for a distance of 1600mm on either side of the centre of track shall be as under :
  - (i) Light Overhead Structures, such as Foot Over Bridges : 6250 mm
  - (ii) Heavy Overhead Structures, such as Road Over Bridges and Flyovers : 5870 mm

**Note :**

- (a) See Appendix for 'extra clearance required on curves'.
- (b) In case of restricted height of existing structures, a special study shall be made, as indicated in Appendix-A to Chapter V-A before 25 kV AC traction is introduced.

Accordingly, only in such cases, the minimum height above rail level shall not be lower than 5070mm in case of Heavy Overhead Structure (such as Road Over & Flyovers) and 5270mm in case of Light Overhead Structures (such as Foot Over Bridges) for a minimum contact wire height of 4800mm from above rail level. OHE arrangements shall be as per RDSO Drawings.

- (c) In areas where 25 KV A.C. traction is used or likely to be used, if any turnout or crossover is located under a heavy overhead structure or within 40 metre from its nearest face, irrespective of the position of level crossing gate, the minimum height of such overhead structure shall be 6250mm. In case the turnout is beyond 40 m; but the level crossing gate is within 520 metre from the nearest face of the bridge, the height of such overhead structure shall be 6250mm.
- (d) The height mentioned against items 10(a), 10(b) & 10(c) above shall be measured from the higher or super elevated rail.
- (e) On lines, existing or proposed to be electrified on 25 kV A.C. system, necessary provision shall be made in overhead structure and overhead equipment, if necessary, by using longer traction overhead equipment masts to permit an extra allowance of 275mm for raising of track in future to cater for modern track structure in the form of increased ballast cushion, larger sleeper thickness and deeper rail sections.

\* (In case of restricted height of existing heavy overhead structure, minimum height above rail level shall not be lower than 5270mm, adhering to the provisions of note (b) above).

## II. Amendment To Para-11 Of Chapter-I : General

{At Page - 7 & 8 Of IRSOD 2004 And Subsequently Revised Vide ACS No. 10}

In Schedule-I of IRSOD, Revised 2004

Para 11(iv) shall be read as under :

### Para-11(iv) Minimum Horizontal Distance Of Structures

The minimum horizontal distance measured at right angles from the centre of nearest track to any part of a structure (all structures shall be rigid and well founded), carrying electrical conductors crossing a railway shall be :

- (i) For new structure : (H + 6) metre
- (ii) For existing structure : (H + 2.135) metre

{where, 'H' is the height of post/structure from nearest ground level}

Note : Any post/structure which is so constructed or guyed as to remain in a vertical position, or failing this to continue to provide the minimum clearances of 2.135m, with one or all of the conductors broken or, with its conductors attached, when subjected to maximum wind pressures, shall be considered to be a "rigid well founded post/structure".

[There is no change in in Para 11(i) to (iii) w.r.t. the existing provisions of IRSOD 2004]

## III. Amendment To Para-11 Of Chapter-II : Station Yards

{At Page - 14 Of IRSOD 2004 And Subsequently Revised Vide ACS No. 10}

In Schedule-I of IRSOD, Revised 2004

Para 11 shall be read as under :

### 11. Minimum Horizontal Distance From Centre Of Track To Any Structure :

#### (A) For Existing Works :

- (i) From rail level to 305mm above rail level 1675mm

(ii)	From 305mm to 3355mm above rail level	2135mm
(iii)	From 3355mm to 4115mm above rail level	2135mm decreasing to 1980mm
(iv)	From 4115mm to 6250mm above rail level	1600mm
(v)	Below the rail level and upto formation level of the track on straight and curves up to radius of 875m	2575mm
(vi)	Below the rail level and upto the formation level of the track on curves with radius less than 875m	2725mm

**Note :**

- (a) See Appendix for 'extra clearances required on curves'.
- (b) On lines other than main lines or existing main lines, where electric traction is not likely to be introduced; the horizontal distance of 1370mm for height from 4115mm to 6100mm above rail level may be allowed to continue.
- (c) The clearance mentioned above in item (v) and (vi) shall be applicable only in new yards including its electrification works. The various fixtures, which are attached to the track; like lock bar, point machine, traction bonds, point and signal rodding etc. and are required to be fitted with the rail, can be provided and the clearance, as mentioned in item 11(v) and 11(vi) above will not be applicable to these items.
- (d) In case of electrification works in existing yards, no foundations / mast / signal post / any other structure shall be provided between two tracks. In case it is inescapable, the minimum distance of edge of foundation / mast / signal post / any other structure at and above formation level upto rail level from centre of track, shall be 2360mm. The distance shall be proportionately increased, based on available track centre distance upto minimum distance of 2575mm / 2725mm, as the case may be; as specified in Items 11A(v) and 11A(vi) above respectively.
- (e) Items 11(A)(v) and 11(B)(vi) above shall not be applicable in case of bridges.

**(B) For New Works or Alteration to Existing Works :**

(i)	From rail level to 305mm above rail level	1905mm
(ii)	From 305mm to 1065mm above rail level	1905mm increasing to 2360mm
(iii)	From 1065mm to 3735mm above rail level	2360mm
(iv)	From 3735mm to 4420mm above rail level	2360mm decreasing to 2135mm
(v)	From 4420mm to 4610mm above rail level	2135mm decreasing to 1980mm
(vi)	From 4610mm to 6250mm above rail level	1600mm
(vii)	Below the rail level and upto formation level of the track on straight and curves upto radius of 875m	2575mm
(viii)	Below the rail level and upto the formation level of the track on curves with radius less than 875m	2725mm

**Note :** (a) See Appendix for extra clearances required on curves.

(b) Items 11(B)(vii) & 11(B)(viii) above shall not be applicable in case of bridges.

#### IV. Amendment To Schedule-II of IRSOD, Revised 2004

{At Page - 32 And As Per ACS-10 Of IRSOD 2004}

A. Notes below Para 8 & 10 shall be read as under :

##### 8. General : Out Of Station

###### Note :

- (i) See Appendix for 'extra clearance required on curves'.
- (ii) In case of existing structures, a special study shall be made as indicated in Appendix-A to Chapter V-A of Schedule-I, before 25 kV AC traction is introduced. In case of restricted height of existing over head structure, the minimum height above rail level shall not be lower than 5070mm in case of Heavy Overhead Structure (such as Road Over & Flyovers) and 5270mm in case of Light Overhead Structures (such as Foot Over Bridges) for a minimum contact wire height of 4800mm from above rail level. OHE arrangements shall be as per RDSO Drawings.

##### 10. Station Yards :

###### Note :

- (i) See Appendix for 'extra clearance required on curves'.
- (ii) In case of existing structures, a special study shall be made as indicated in Appendix-A to Chapter V-A before 25 KV AC traction is introduced. In case of restricted height of existing over head structure, the minimum height above rail level shall not be lower than 5070mm in case of Heavy Overhead Structure (such as Road Over or Flyover Bridges) and 5270mm in case of Light Overhead Structures (such as Foot Over Bridges) for a minimum contact wire height of 4800mm from above rail level. OHE arrangements shall be as per RDSO Drawings.

##### B. Para 12.

Para 12 w.r.t. the existing provisions of IRSOD 2004 (ACS-10), shall be deleted.

**Addendum & Corrigendum Slip (ACS) No. 14**  
To  
**Indian Railways Schedule Of Dimensions (B.G.) 2004**

**I. Amendment To Para-5, 17, 19, 20, 23, 24 & 25 Of Chapter-IV(A)**  
**Rolling Stock (Carriage & Wagon)**

{At Page - 19, 20, 21 of IRSOD, Revised 2004 in Schedule-I}

**Para - 5, 17, 19, 20, 23, 24 & 25 shall be read as under :**

- |     |   |         |
|-----|---|---------|
| 5.  | Maximum thickness of flange of tyre, measured from wheel gauge face at 13mm from outer edge of flange | 29.4mm  |
| 17. | Maximum distance apart of bogie centres for bogie vehicles  | 14900mm |
| 19. | Maximum length of body or roof for :  |         |
|     | (a) 4 - wheeled vehicle   | 8540mm  |
|     | (b) Bogie vehicles  | 21340mm |

**Note :**

- (i) Maximum length of body or roof of bogie vehicles can be upto 23540mm, subject to tapering of the ends in a manner that the end throw, when calculated as per Appendix, is same as that for ICF coach of 21340mm length and within this Schedule of Dimensions.
  - (ii) A cornice may project beyond the maximum permissible length of the roof up to 51mm in the case of (a) above, beyond each end of the vehicle.
  - (iii) .Fittings on the end of a vehicle, such as step iron, vacuum brake piping, electrical connections, vestibule etc., need not be kept within the prescribed maximum permissible lengths for bodies of vehicles, but may project beyond the end of the body to a reasonable extent.
- |     |  |          |
|-----|--|----------|
| 20. | Maximum length over centre buffer couplers or side buffers : |          |
|     | (a) 4 - wheeled vehicle                                      | 9810 mm  |
|     | (b) Bogie vehicles   | 22300 mm |

**Note :** Maximum length over the centre buffer couplers or side buffers can be 24000mm for Bogie Vehicles, having maximum length of body or roof as 23540mm. However, the maximum length over the centre buffer couplers or side buffers for longer coaches as per Item 20 above shall be so arranged that difference between length over side buffers and length of body or roof is not less than 460mm.

- |     |   |                                       |
|-----|---|---------------------------------------|
| 23. | Maximum width over all projections, at 305mm above rail level, when fully loaded                              | 3050mm                                |
| 24. | Maximum width over all projections from 305mm above rail level, to 1082mm above rail level, when fully loaded | 3050mm                                |
| 25. | Maximum width over all projection from 1082mm above rail level, to 1170mm above rail level, when fully loaded | 3050mm increasing gradually to 3250mm |



**Note :** For freight bogie vehicles with maximum length of body or roof upto 14500mm and bogie centre distance upto 10000mm, maximum width over all projections from 305mm above rail level to 1082mm above rail level, when fully loaded, can be relaxed to 3135mm instead of 3050mm

## II. Amendment To Para-3 Of Chapter IV(B) : Rolling Stock (3660mm Wide Stock)

{At Page 23; In Schedule-I of IRSOD, Revised 2004 }

Para 3 shall be read as under :

- |    |  |        |
|----|--|--------|
| 3. | Maximum width over open doors, including all projections, for goods vehicles | 4500mm |
|----|--|--------|

## III. Amendment To Para-11 Of Chapter IV(C) : Rolling Stock (Locomotive)

{At Page 25; In Schedule-I of IRSOD, Revised 2004}

**Maximum Moving Dimensions :** (See New Diagram No. 1D)

Para 11 shall be read as under :

- |      |  |         |
|------|--|---------|
| 11.A | Maximum length of body or roof                             | 21340mm |
| 11.B | Maximum length over centre buffer couplers or side buffers | 22300mm |

**Note :** (i) Maximum length of body or roof can be upto 23540mm, subject to tapering of the ends in a manner that the end-throw, when calculated as per Appendix, is same as that for ICF coach of 21340mm length and within this Schedule of Dimensions.

(ii) Maximum length over the centre buffer couplers or side buffers for bogie vehicles can be 24000mm for locomotives, having maximum length of body or roof of 23540mm.

11.C Maximum width over all projections :

- |       |   |                                       |
|-------|---|---------------------------------------|
| (i)   | At 102mm above rail level, when fully loaded                                      | 2440mm                                |
| (ii)  | At 305mm above rail level, when fully loaded                                      | 3050mm                                |
| (iii) | From 305mm above rail level to 1082mm above rail level, when fully loaded         | 3050mm                                |
| (iv)  | From 1082mm above rail level to 1170mm above rail level, when fully loaded        | 3050mm increasing gradually to 3250mm |
| (v)   | From 1170mm above rail level, when fully loaded, to a height of 3735mm when empty | 3250mm                                |

**Note :** (i) Maximum width over all projections from 925mm (minimum in all conditions) above rail level to 1082mm above rail level, when fully loaded can be 3075mm (in the bogie portion only).

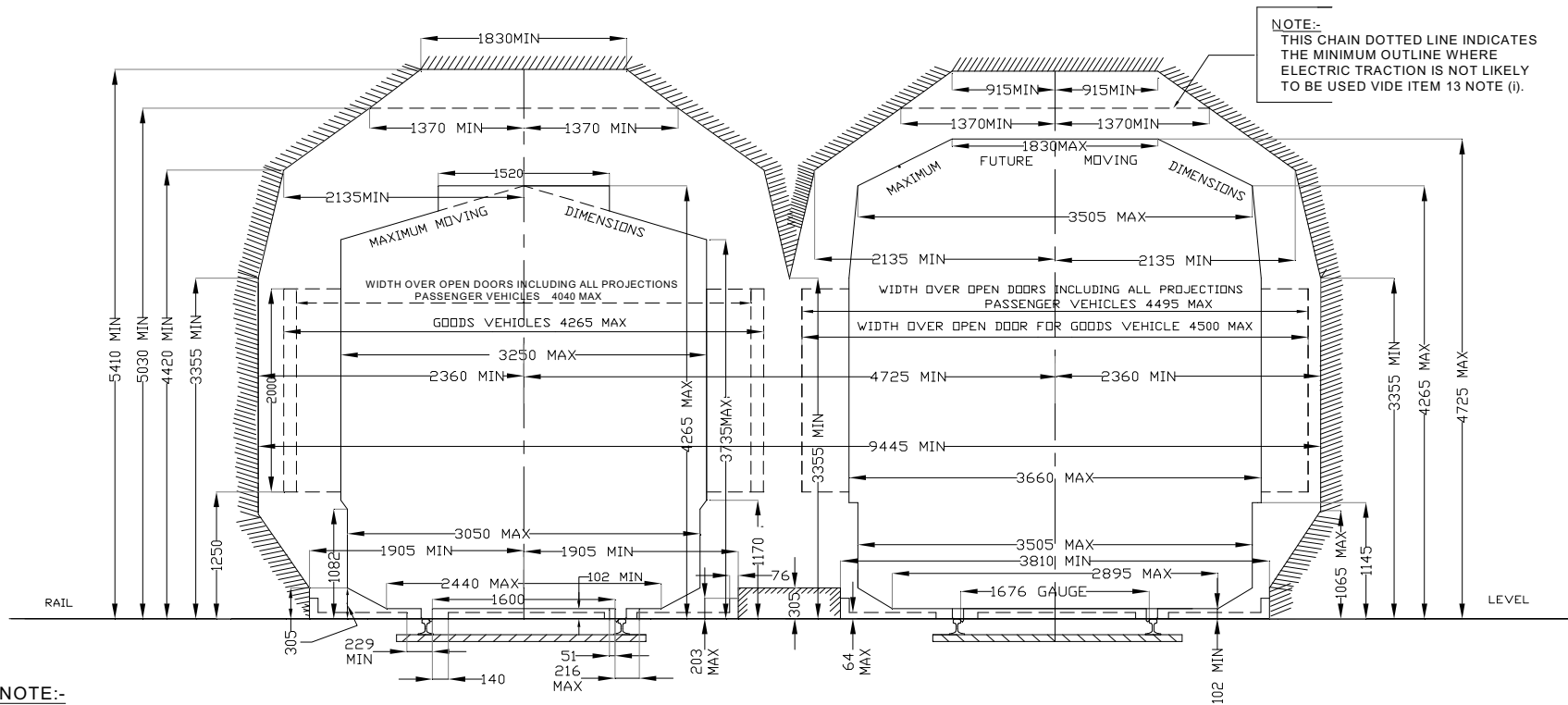
(ii) Maximum distance apart of bogie centres (i.e. pivot centres) for locomotives shall be 15810mm, subject to the condition that width of locomotive at the centre is such that mid-throw, when calculated as per Appendix, is same as that for ICF coach of 21340mm length and within this Schedule of Dimensions.

**DIAGRAM No. 1A**  
**1676mm GAUGE**

**STANDARD DIMENSIONS FOR TUNNELS & THROUGH GIRDER BRIDGES**  
**SCHEDULE I-CHAPTER I**

**NOTE:-**

1. WHERE THE LINE IS ON A CURVE, THE HORIZONTAL DISTANCE OF ANY STRUCTURE FROM THE CENTRE OF ADJACENT TRACK AND THE DISTANCE BETWEEN CENTRES OF TRACKS ARE TO BE INCREASED ACCORDING TO THE APPENDIX.
2. WHEN RE-SPACING EXISTING LINES, THE MINIMUM DISTANCE CENTRE TO CENTRE OF TRACKS MAY BE REDUCED FROM 4725 TO NOT LESS THAN 4495 FOR THE PURPOSE OF AVOIDING HEAVY ALTERATIONS TO TUNNELS OR THROUGH GIRDER BRIDGES. THE 4725 DIMENSION IS TO BE ADOPTED FOR ALL NEW WORKS.



**NOTE:-**  
THIS CHAIN DOTTED LINE INDICATES THE MINIMUM OUTLINE WHERE ELECTRIC TRACTION IS NOT LIKELY TO BE USED VIDE ITEM 13 NOTE (i).

**NOTE:-**  
ALL DIMENSIONS ARE IN MILLIMETRES EXCEPT WHERE OTHERWISE SHOWN.

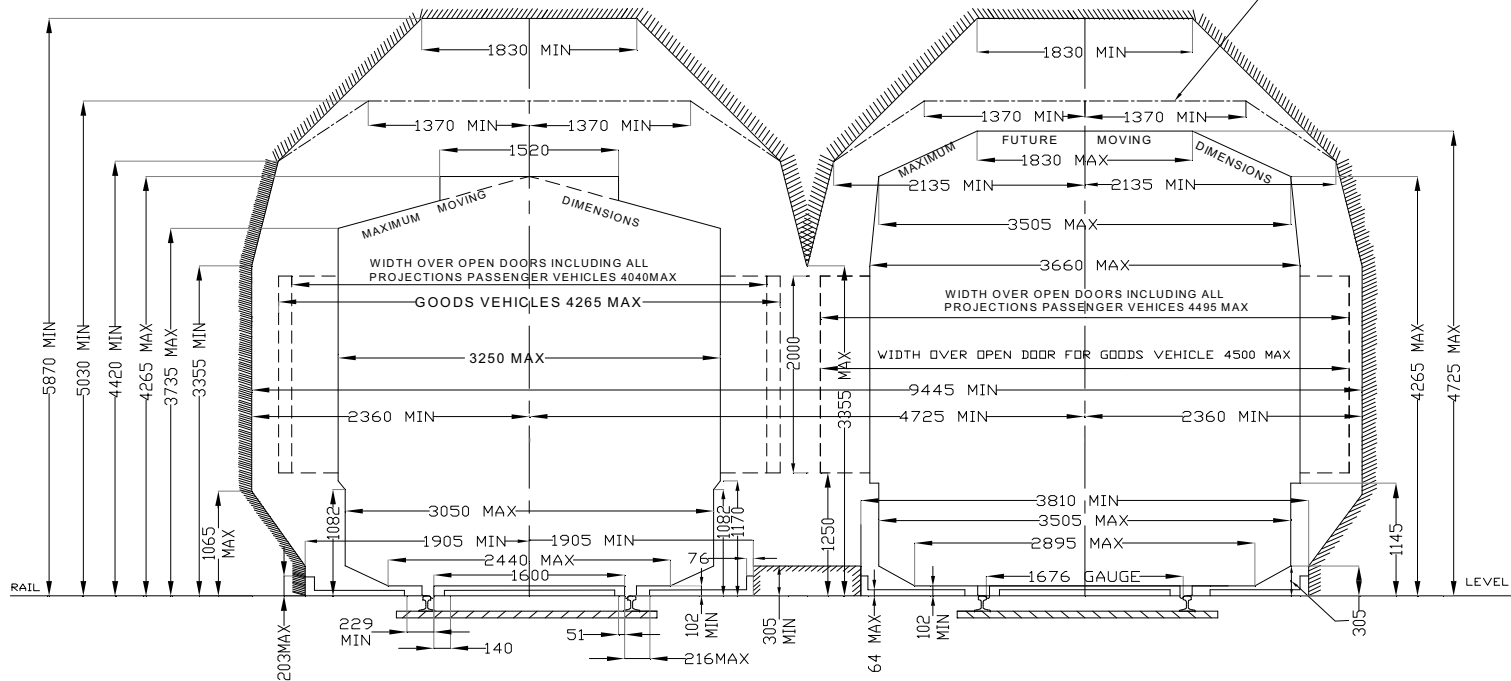
**DIAGRAM No. 1A (MODIFIED)**  
**1676 mm GAUGE**

**STANDARD DIMENSIONS FOR TUNNELS & THROUGH GIRDER BRIDGES**  
**TO SUIT 25 k.V. A.C. TRACTION SCHEDULE I CHAPTER I**

**NOTE:-**

THE DISTANCES SPECIFIED APPLY ONLY IN CASE OF STRAIGHT TRACKS. ON CURVES, THE HORIZONTAL DISTANCE SHOULD BE INCREASED BY AN AMOUNT 'D' TO ALLOW FOR THE LEAN DUE TO SUPER-ELEVATION CALCULATED BY THE FOLLOWING FORMULA, WHERE 'H' IS THE HEIGHT OF THE CONTACT WIRE, 'S' THE SUPER-ELEVATION AND 'G' THE GAUGE OF THE TRACK, ALL DIMENSIONS BEING IN METRES  
 $D = H \times S / G$

NOTE:- THIS CHAIN DOTTED LINE INDICATES THE MINIMUM OUT LINE WHERE ELECTRIC TRACTION IS NOT LIKELY TO BE USED VIDE ITEM 13 NOTE (i) OF CHAPTER I SCHEDULE I



**NOTE:-**

ALL DIMENSIONS ARE IN MILLIMETRES EXCEPT WHERE OTHERWISE SHOWN.

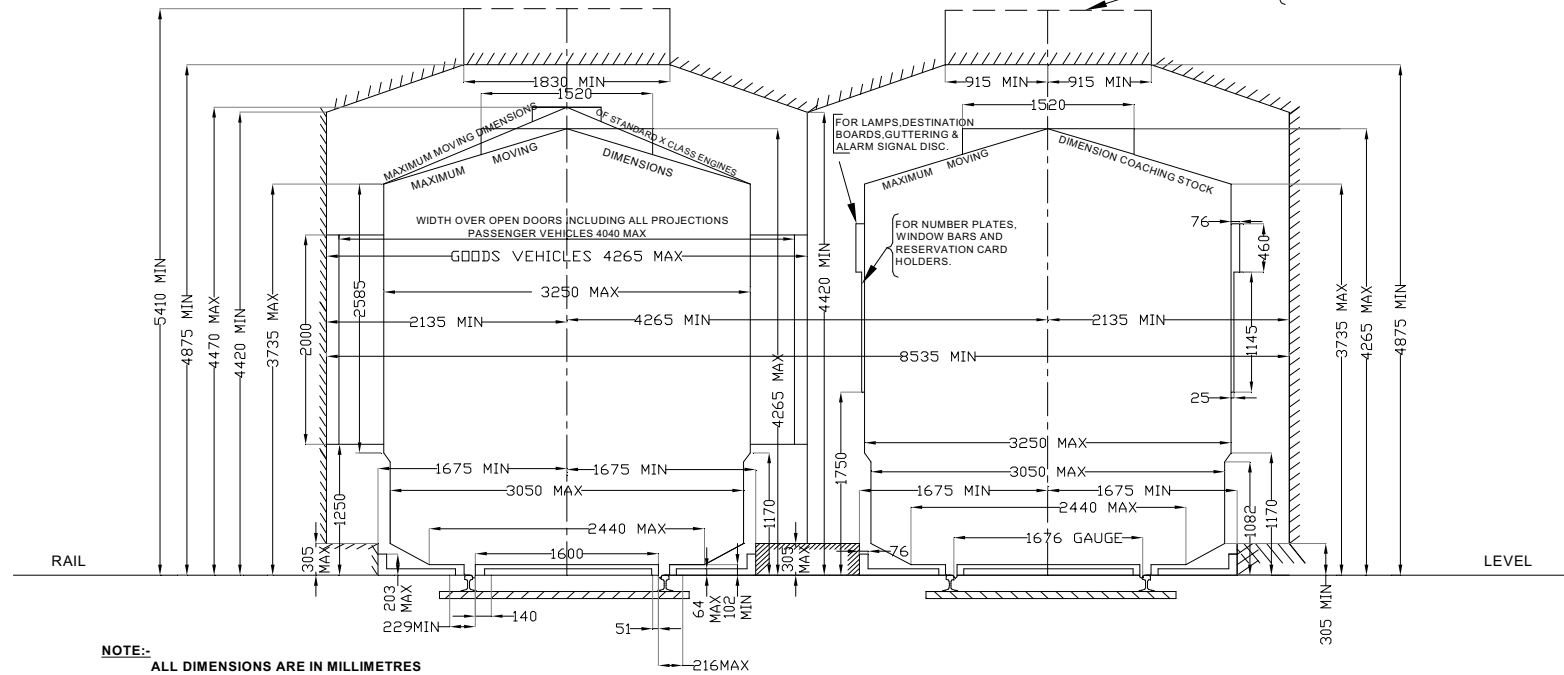
**DIAGRAM No. 1B**  
**1676 mm GAUGE**

**STANDARD DIMENSIONS OUT OF STATIONS**  
**SCHEDULE I - CHAPTER I**

**NOTE:-**

WHERE THE LINE IS ON A CURVE, THE HORIZONTAL DISTANCE OF ANY STRUCTURE FROM THE CENTRE OF ADJACENT TRACK AND THE DISTANCE BETWEEN CENTRES OF TRACKS ARE TO BE INCREASED ACCORDING TO THE APPENDIX.

NOTE:-MINIMUM HEIGHT WHERE ELECTRIC TRACTION IS IN USE OR LIKELY TO BE INTRODUCED (ITEM 10 (ii))



**NOTE:-**  
ALL DIMENSIONS ARE IN MILLIMETRES  
EXCEPT WHERE OTHERWISE SHOWN.

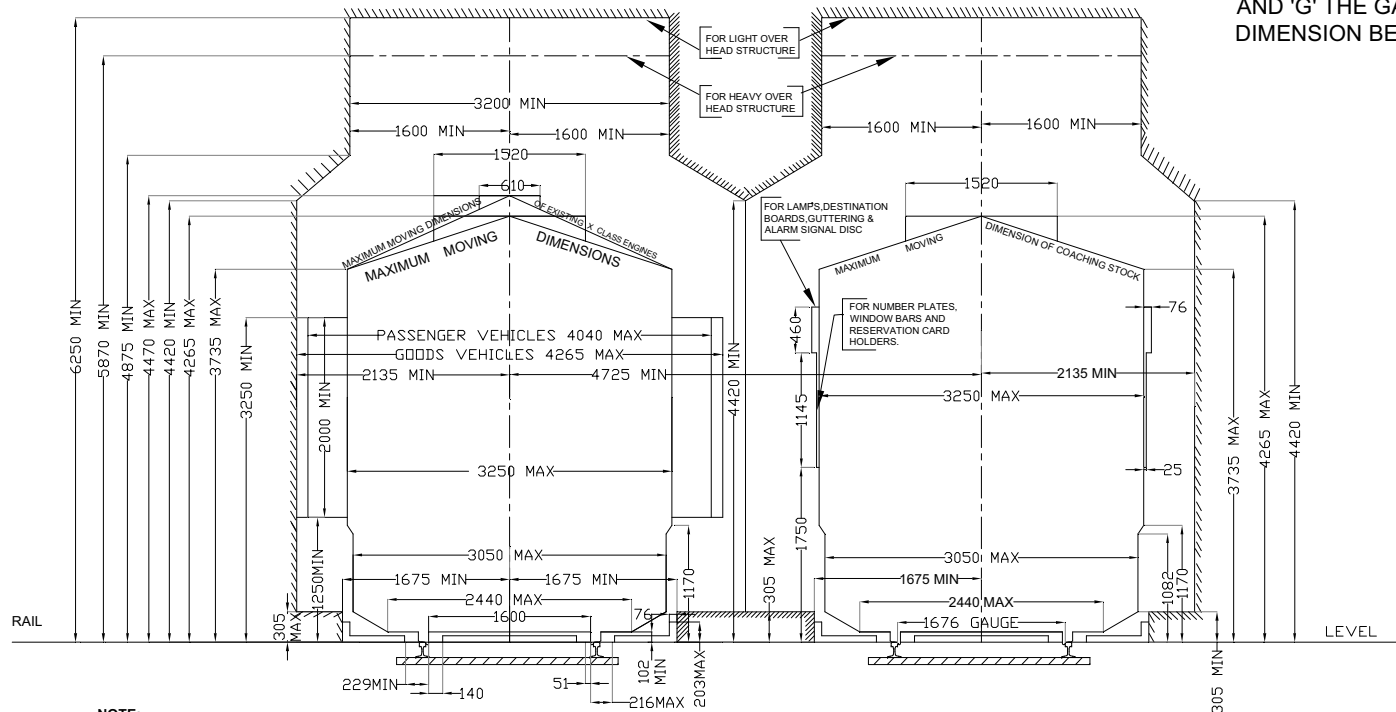
**DIAGRAM No. 1C**  
**1676 mm GAUGE**

**STANDARD DIMENSIONS OUT OF STATIONS**

**TO SUIT 25 kV. A.C. TRACTION**  
**SCHEDULE I - CHAPTER I**

**NOTE:-**  
THE DISTANCES SPECIFIED, APPLY ONLY IN CASE OF STRAIGHT TRACK. ON CURVES, THE HORIZONTAL DISTANCE SHOULD BE INCREASED BY AN AMOUNT 'D' TO ALLOW FOR THE LEAN DUE TO SUPER-ELEVATION CALCULATED BY THE FOLLOWING FORMULA, WHERE 'H' IS THE HEIGHT OF THE CONTACT WIRE, 'S' THE SUPERELEVATION AND 'G' THE GAUGE OF THE TRACK, ALL DIMENSION BEING IN METRES

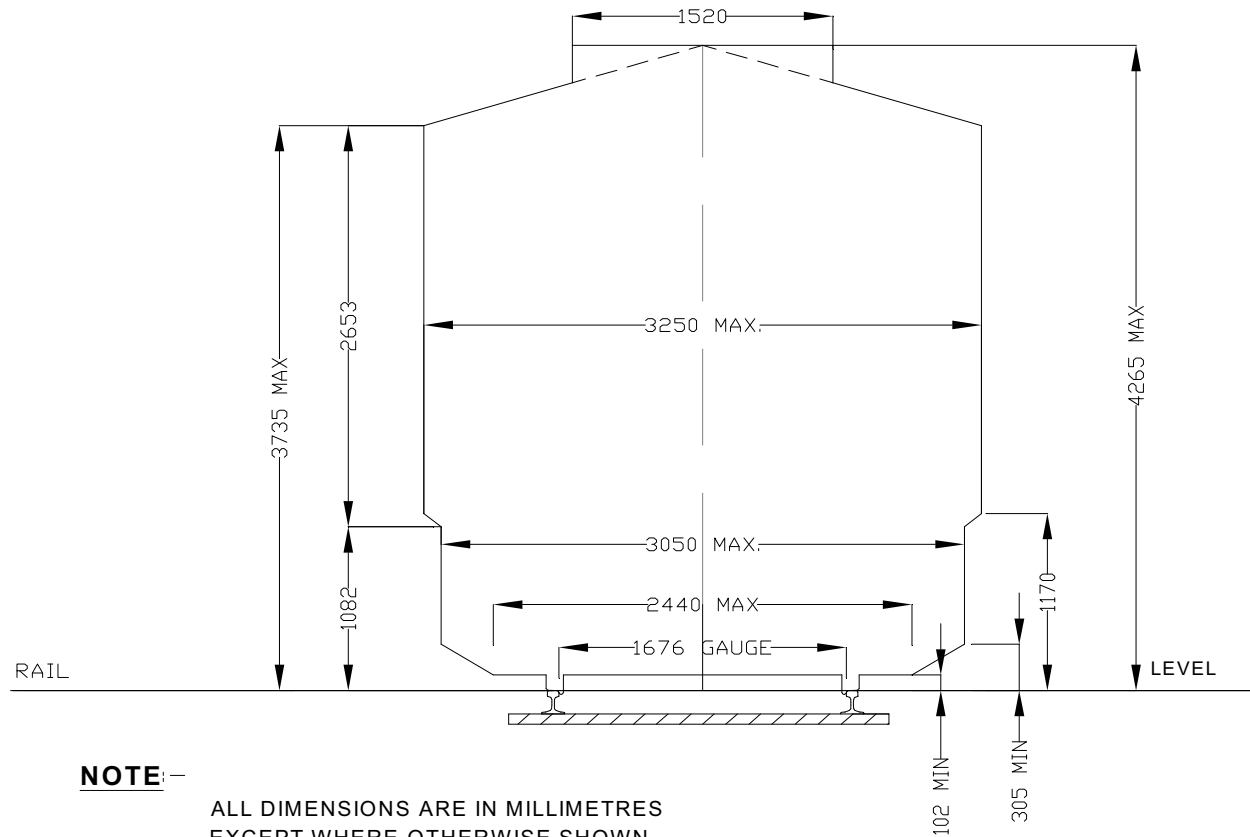
$$D = \frac{H \times S}{G}$$



**NOTE:-**  
ALL DIMENSIONS ARE IN MILLIMETRES  
EXCEPT WHERE OTHERWISE SHOWN.

DIAGRAM No. 1D (EDO/T-2202)  
1676mm GAUGE

MAXIMUM MOVING DIMENSIONS

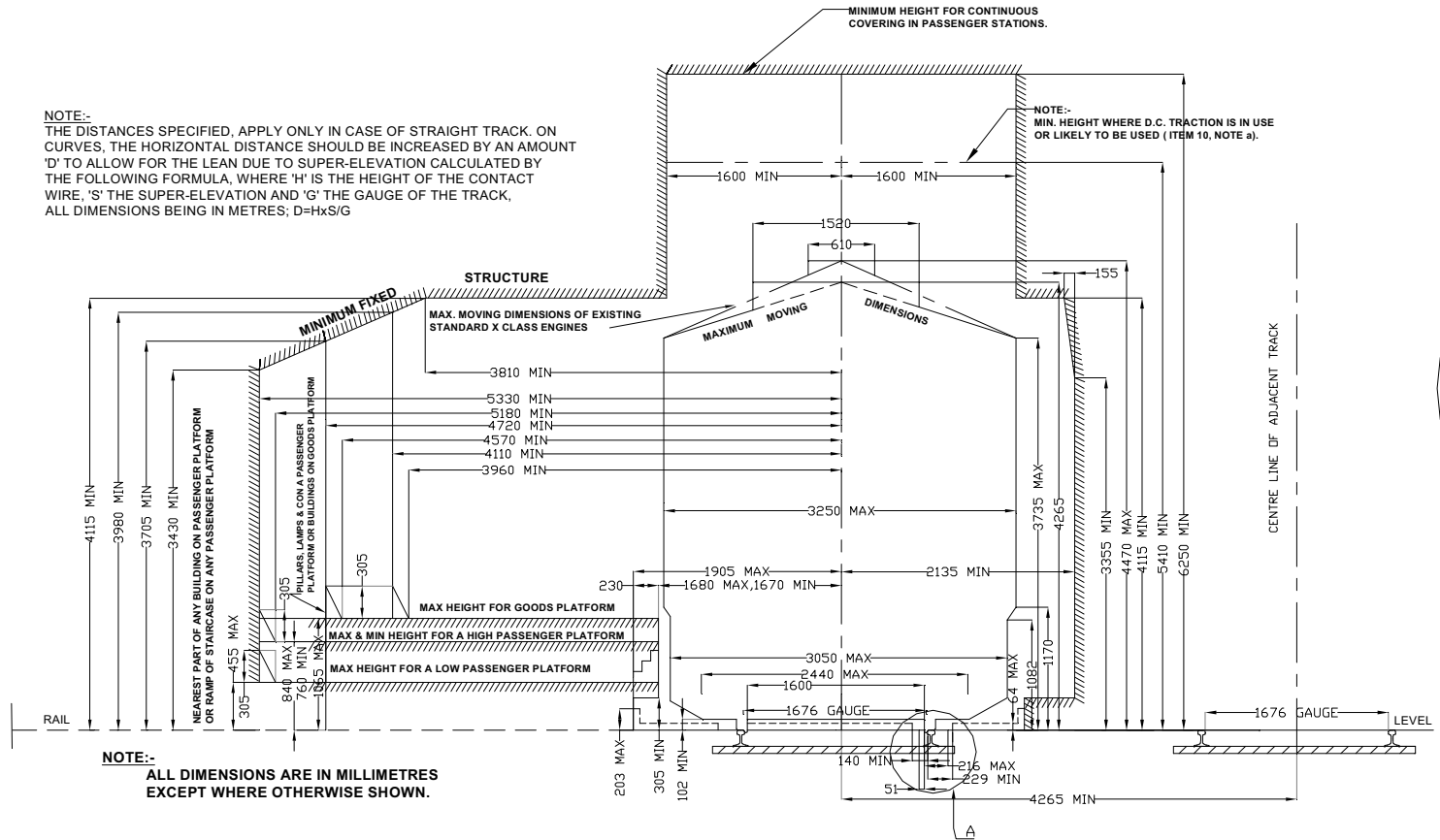


**DIAGRAM NO. 2**  
**1676 mm GAUGE**

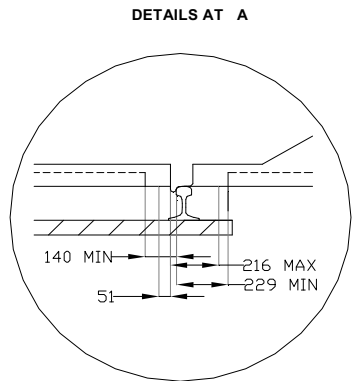
**STANDARD DIMENSIONS IN STATIONS**  
**TO SUIT 25 KV.A.C. TRACTION SCHEDULE I-CHAPTER II**

NOTE:-  
THE DISTANCES SPECIFIED, APPLY ONLY IN CASE OF STRAIGHT TRACK. ON CURVES, THE HORIZONTAL DISTANCE SHOULD BE INCREASED BY AN AMOUNT 'D' TO ALLOW FOR THE LEAN DUE TO SUPER-ELEVATION CALCULATED BY THE FOLLOWING FORMULA, WHERE 'H' IS THE HEIGHT OF THE CONTACT WIRE, 'S' THE SUPER-ELEVATION AND 'G' THE GAUGE OF THE TRACK, ALL DIMENSIONS BEING IN METRES;  $D = H \times S / G$

NOTE:-  
MIN. HEIGHT WHERE D.C. TRACTION IS IN USE OR LIKELY TO BE USED (ITEM 10, NOTE a).



NOTE:-  
ALL DIMENSIONS ARE IN MILLIMETRES  
EXCEPT WHERE OTHERWISE SHOWN.

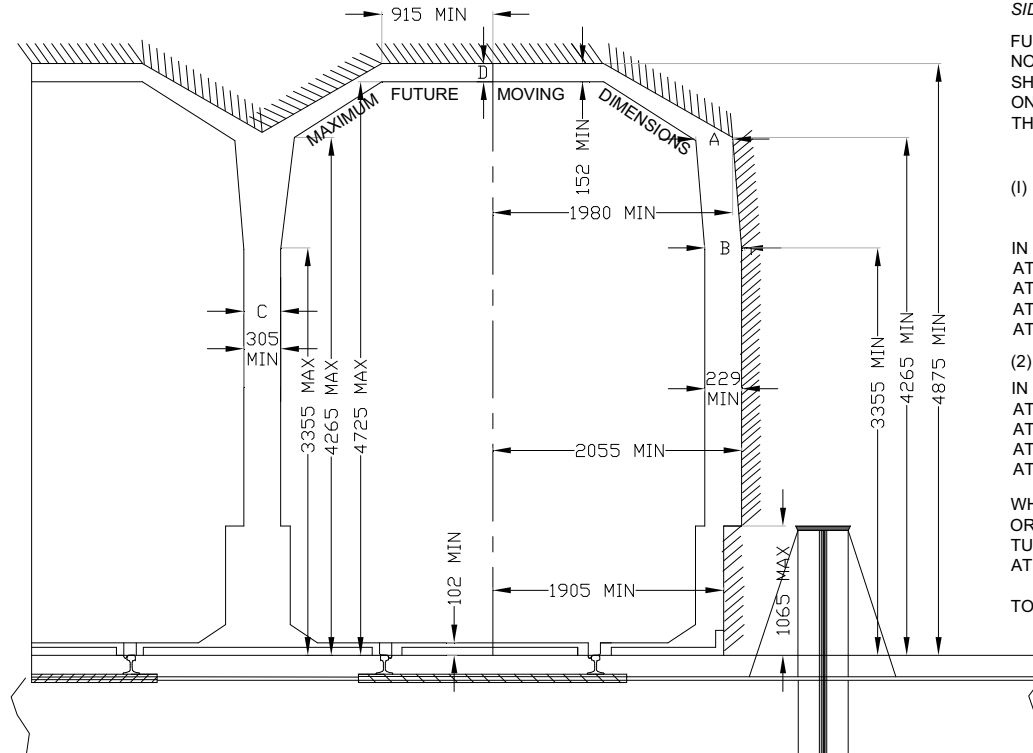


DIGRAM NO. 3 (FIG I)  
1676mm GAUGE

**INFRINGEMENTS OF SCHEDULE - I**

**FOR 3660 mm GOODS STOCK & NEW  
STANDARD LOCOMOTIVES IN EXISTING  
BRIDGES ONLY**

**PERMITTED UNDER SCHEDULE-II  
MINIMUM CLEARANCES ON EXISTING GIRDER BRIDGES**



**NOTES:-**

FULL LINES SHOW MAXIMUM MOVING DIMENSIONS OF FUTURE 3660 WIDE STOCK & OF EXISTING 3200/3250 WIDE STOCK & OUTLINE OF EXISTING 3660 WIDE ELECTRIFIED STOCK DOTTED LINES SHOW OUTLINE OF NEW STANDARD X.E. & W.H. ENGINES & OF PROPOSED 3660 WIDE HIGH SIDED OPEN TRUCK.

FULL HATCHED LINES SHOW DIMENSIONS WHICH SHOULD NOT BE INFRINGED IN TUNNELS, DOTTED HATCHED LINES SHOW DIMENSIONS WHICH SHOULD NOT BE INFRINGED ON GIRDER BRIDGES WHERE THE TRACK IS FIXED TO THE GIRDERS.

THE MINIMUM PERMISSIBLE CLEARANCES WILL BE.

(1) UNDER ANY CIRCUMSTANCES & SUBJECT TO ANY RESTRICTION OF SPEED WHICH IT MAY BE CONSIDERED NECESSARY TO IMPOSE.

IN TUNNELS	ON GIRDER BRIDGES
AT A-----229mm	AT A----229mm (AT TOP OF SIDES OF VEHICLES)
AT B-----305mm	AT B----229mm (AT SIDES OF VEHICLES)
AT C-----380mm	AT C----305mm (BETWEEN MOVING TRAINS)
AT D-----229mm	AT D----152mm (ABOVE VEHICLES)

(2) FOR UNRESTRICTED SPEED:

IN TUNNELS	ON GIRDER BRIDGES
AT A-----380mm	AT A----229mm (AT TOP OF SIDES OF VEHICLES)
AT B-----535mm	AT B----455mm (AT SIDES OF VEHICLES)
AT C-----610mm	AT C----535mm (BETWEEN MOVING TRAINS)
AT D-----305mm	AT D----229mm (ABOVE VEHICLES)

WHERE DOORS OPENNING INWARDS OR OF THE RECESSED OR SLIDING TYPE ARE PROVIDED, THE MINIMUM CLEARANCE IN TUNNELS & BRIDGES MAY BE REDUCED TO 380 AT B & 455 AT C FOR UNRESTRICTED SPEED.

TO THE ABOVE MUST BE ADDED THE EXTRA ALLOWANCES FOR CURVES (SEE APPENDIX.)

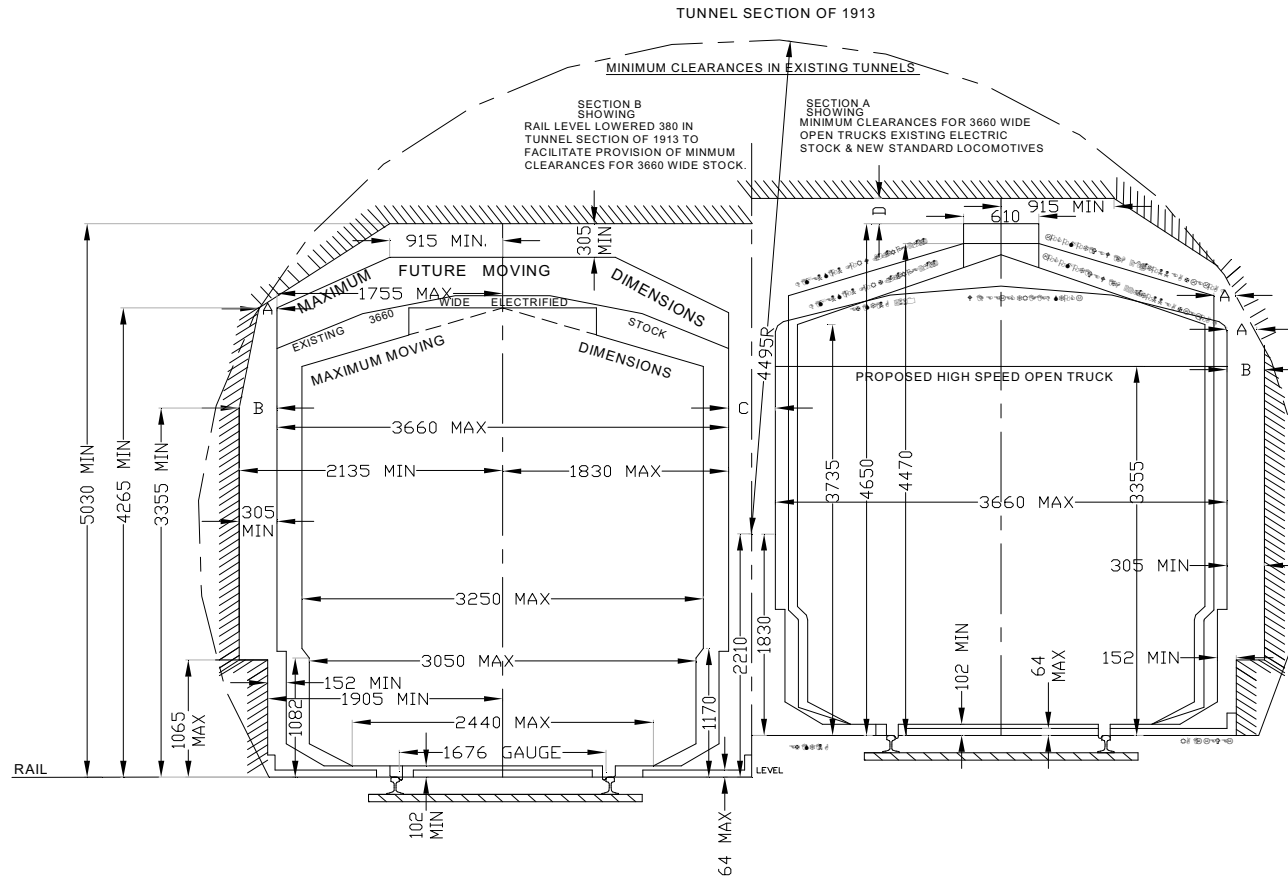


**INFRINGEMENTS OF SCHEDULE - I**

**FOR 3660 mm GOODS STOCK & NEW  
STANDARD LOCOMOTIVES IN EXISTING  
TUNNELS ONLY**

**PERMITTED UNDER SCHEDULE-II**

**DIGRAM NO. 3 (FIG II)**  
**1676mm GAUGE**



**NOTE:-**  
PLEASE REFER TO NOTES GIVEN IN  
DIAGRAM No. 3 (FIG I)

**NOTE:-**  
ALL DIMENSIONS ARE IN MILLIMETRES  
EXCEPT WHERE OTHERWISE SHOWN

**DIAGRAM NO. 4**  
**1676mm GAUGE**

**MAXIMUM MOVING DIMENSIONS OF 1929 PROFILE**

