M.R.O. 1—77,006—8-6-37.

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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 435-436-437	3021-22	Press / ~~Mis.~~
Dated	19-12-	1872.

Not to be folded or roughly handled

No. 435. Read the following letter from the Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, dated Madras, 28th November 1872, No. 656 :—

In compliance with the instructions conveyed in the orders of Government, dated the 20th and 29th August 1872, Nos. 1,986 and 2,069, the Officiating Deputy Consulting Engineer was requested to make a detailed inspection of all the structures and rolling stock belonging to the Madras and the Great Southern of India Railways, and to report all cases in which deviations from the standard dimensions came to his notice. This duty has necessarily involved considerable labour, and I have now the honour to lay before Government the results of Captain Thompson's inspections.

2. The standard dimensions which were agreed to in the year 1856 by the Guaranteed Companies and the Secretary of State are as follow:—

	FT.	IN.	
Minimum clear width between tracks	6	0	
Mimimum clear distance of platform wall from rails	2	6	
Projection of nosing not to exceed	0	3	
Minimum clear height of all over openings above rails in centre of each line	14	6	
Goods loading gauge for interchange of traffic to be settled to a pattern.			
Breadth from centre to centre of buffers	6	5	
Height of centre of buffer above rail to be 3 feet 6 inches for all rolling stock hereafter to be constructed.			
Passengers' carriages—			
Extreme width of body	8	6	
,, ,, of roof	10	6	
,, ,, of steps	10	0	
Length between centre of wheels (carriages and wagons) 11 feet maximum			
Minimum diameter of turn-tables	15	0	
The engine and tender to turn on tables	40	0	diameter.
All carriages and wagons to have spring buffers and draw springs at both ends.			

3. These dimensions were evidently incomplete. Nothing was fixed with reference to goods vehicles, and the height of platforms was not noticed. So far as the Railways in this Presidency were concerned, this last point was settled by the Madras Government in their order dated the 20th March 1856, No. 85, where it was directed that platforms at terminal stations should have a height of 4 feet above rail level, and at other stations a height of 3 feet 3 inches. This order has lately* been modified in order to accommodate the rolling stock of the Great Indian Peninsula Railway; and while the height of passenger platforms

* G. O., No. 2,112, 14th October 1872.

at roadside stations remains at 3 feet 3 inches, the height of terminal passenger platforms and of all goods platforms is now fixed at 3 feet 9 inches.

4. In December 1856 a sketch of a loading gauge specifying the dimensions which had been agreed upon by certain of the Guaranteed Railway Companies was forwarded by the Madras Railway Board to their Agent. A copy of this sketch is annexed to the order of Government, dated the 14th October 1872, No. 2,412, but it does not seem to have been ever officially authorized by the Government of India for general adoption, and there seems to be considerable doubt as to the dimensions and shape to be given to the upper part of the gauge. I beg to draw attention to the remarks made by Captain Thompson on this point. It is of great importance that all doubt on the subject should be cleared away, and that uniform dimensions and shape for the loading gauge of all the guaranteed broad-gauge railways should be authoritatively fixed.

5. It will be seen that in the case of four stations on the Great Southern of India Railway, the doors of the goods sheds vary from 9 feet 11 inches to 10 feet 4 inches in width, and I solicit special instructions on this point. As pointed out by Captain Thompson, if goods vehicles are to be allowed the same maximum width as passenger carriages, namely, 10 feet 6 inches, the doors of these four sheds are too narrow.

6. I have called upon the Agents of the two Companies to have the deviations reported on by Captain Thompson rectified without delay, and to let me know that this has been done.

MADRAS RAILWAY.

Stations where the minimum clear width between tracks is less than 6 feet.

Line.	Station.	FT.	IN.
South West Line.	Cootipoorum	5	10
	Walliar	5	11
	Peranduray	5	10
	Erode	4	8
	Vaniembady	5	11
	Mailputty	5	11
North West Line.	Nundalore	5	11
	Cuddapah	5	11
	Gooty	5	10
	Nunoherla	5	6
	Goondacul (on Bellary siding)	5	10
	Auspree	5	8
	Adoni	5	9
	Kosgee	5	7

NOTE.—The distance between tracks at Tripatore was through an oversight not measured. Measurements will be taken on my next inspecting that station.

Proceedings of the Madras Government, Public Works Department, 19th December 1872.

Stations where the minimum clear distance of platform wall from rail is less than 2 feet 6 inches.

Line.	Stations.	FT.	IN.	Remarks.
South West Line.	Tiroor (Passenger platform)	2	5	
	Purby (do.)	2	5	
	Palghaut (do.)	2	5	
	Erode (do.)	2	5	Between Madras and Great Southern of India Companies lines.
	Mailputty (do.)	2	4	
	Gooriattum (do.)	2	4	
	Vellore (do.)	2	5	
	Sholinghur (do.)	2	4	
	Arconum (do.)	2	3	North 2′ 2″, south side.
	Chinamapett (do.)	2	4	North 2′ 4″, south side.
	Trivellore (do.)	2	4	North.
	Tinnanore (do.)	2	4	
	Avady (do.)	2	5	North 2′ 2″, south side.
	Perambore (do.)	2	5	South side.
	Royapooram (do.)	2	5	North side.
	Vaniembady (Goods platform)	2	5	
	Vellore (do.)	2	5	
	Arconum (do.)	2	4	
	Chinamapett (do.)	2	3	
	Cudambathore (do)	2	5	
	Beypore (Fuel platform)	2	5	7′ 5″ high.
	Palghaut (do.)	2	3	7′ 2″ ,,
	Salem (do.)	2	0	7′ 5″ ,,
Bangalore Branch.	Malloor (Passenger platform)	2	5	
North West Line.	Arconum (north side) Passenger platform.	2	3	Southern Terminus.
	Arconum (south side) do.	2	2	Do. do.
	Tirutany do.	2	5	
	Tripetty do.	2	4	
	Reddipully do.	2	5	
	Rajampet do.	2	4	
	Wontimettah do.	2	4	
	Arconum (Goods platform)	2	4	Do. do.
	Tirutany (do.)	2	5	
	Tripetty (do.)	2	1	
	Rajampett (do.)	2	3	
	Cuddapah (do.)	2	4	
	Camalapoor (do.)	2	5	
	Moodanoor (do.)	2	5	
	Kondipooram (do.)	2	5	
	Tadpatri (do.)	2	5	
	Tripotty (Fuel platform)	1	11	6′ 11″ high.
Bellary Branch.	Veerapoor (Goods platform)	2	5	

NOTE.—There is a fuel platform at Tripatore, but through an oversight it was not measured. Measurements will be taken on my next inspection of that station.

Stations where the projection of nosing is more than 3 inches.

Line.	Stations.	FT.	IN.
South West Line.	Muddikurry	0	4
	Vellore	0	3½
	At Pothanore steps project 4 inches from the face of the platform wall in the goods shed.		

Stations where the minimum clear height for over-openings above rails in centre of line, namely, 14 feet 6 inches, is not preserved in the case of doors of Goods sheds.

Line.	Stations.	High. FT.	High. IN.		Wide. FT.	Wide. IN.	Remarks.
South West Line.	Erode	14	4	×	10	11	
	Mailputty	14	5	×	11	0	
	Sholinghur	11	5	×	11	0	
	Arconum	14	3	×	11	0	
	Chinnamapett	14	4	×	10	11	
North West Line.	Arconum (East side)	14	3	×	11	0	South Terminus.
	Tirutany	14	5	×	11	4	
	Naggery	14	1	×	11	6	

Terminal Stations where the height of Passenger Platforms is more than 3 feet 9 inches.

Line.	Stations.	— FT.	— IN.	Remarks.
South-West Line.	Royapooram	3	10	South side.

Stations where the height of Goods Shed Platforms is more than 3 feet 9 inches.

Line.	Stations.	— FT.	— IN.	Remarks.
South West Line.	Beypore	...	...	Platform was being lowered on date of my inspection.
	Wootapolliem	4	0	
	Muddikurry	4	0	
	Pothanore	3	11	
	Salem	4	2	
	Mullapooram	3	10	
	Morapoor	4	0	
	Samulputty	4	0	
	Tripatore	4	1	
	Vaniembady	4	0	
	Amboor	4	1	
	Mailputty	4	0	
	Gooriattum	4	3	
	Vellore	4	0	
	Tiruvellum	3	10	
	Arcot	4	0	
	Sholinghur	4	0	
	Arconum	3	11	
	Chinamapett	4	0	
	Cuddambathore	4	0	
	Trivellore	4	0	
	Salt Cotaur, north side	3	9	Varies to 4'.
	Do., south side	3	11	
	Do., single shed	4	3	Northern Terminus.
Bangalore Branch.	Bangalore	4	0	
	Malloor	3	10	
	Colar Road	4	2	
	Coopum			

Proceedings of the Madras Government, Public Works Department, 19th December 1872.

Stations where the height of Goods Shed Platforms, etc.—(Concluded.)

Line.	Stations.	— FT.	— IN.	Remarks.
North West Line.	Arconum	3	11	Southern Terminus.
	Tirutany	4	0	
	Puttoor	4	0	
	Tripetty	4	1	
	Coodoor	3	10	
	Reddipully	4	0	
	Rajampett	4	3	
	Nundalore	4	0	
	Cuddapah	4	0	
	Auspree	4	2	
	Kosgee	3	10	
Bellary Branch.	Bellary	3	10	

Road-side Stations where the height of Passenger Platforms is more than 3 feet 3 inches.

Line.	Stations.	— FT.	— IN.	Remarks.
South West Line.	Puttamby	3	5	
	Shoranoor	3	5	
	Woottapolliem	3	4	
	Purby	3	5	
	Walliar	3	8	
	Somanoor	3	4	
	Wutkallee	3	4	
	Salem	3	4	
	Shevaroy Hills	3	5	
	Mullapooram	3	6	
	Jollarpett	3	5	
	Gooriattum	3	8	
	Vellore	3	5	
	Tiruvellum	3	6	
	Arcot	3	7	
	Cudambathoor	3	5	South 3′ 6″, north side.
	Trivellore	3	10	South side.
	Perambore	3	8	South 3′ 8″, north side.
Bangalore Branch.	Cadgoody	3	5	
	Malloor	3	5	
	Coopum	3	5	
	Jollarpett	3	5	Southern Terminus.
North West Line.	Ballapully	3	5	
	Wontimettah	3	4	
	Toongabudra (south bank)	3	4	

Dimensions of Rolling Stock.

—	Distance between centres of wheels.	Extreme width of steps.	Extreme width of roof.	Extreme width of body.	Centre of buffers above rail.	Width between buffers.	Height above lamp guard.	Height of edge of roof above rail.
	FT.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT.
New composite carriage ...	13	9 7½	10 4	8 7	3 6	6 5	13 2½	12

NOTE.—The maximum moving dimensions of rolling stock on the Madras Railway are found in the new composite carriages, measurements of which are given above.

None of the dimensions of rolling stock on the Madras Railway are in excess of the maximum or less than the minimum measurements given in Memorandum No. 8, dated London, 5th March 1856, circulated with G. O., No. 1,986, dated 20th August 1872, *excepting* in the distances between centres of wheels, some of which are as much as 13 feet apart. All rolling stock, however, turns on tables of 15 feet diameter.

The minimum diameter of carriage turn-tables over the Madras Railway is 15 feet, and all engines and tenders turn on 40 feet turn-tables.

The engine of greatest length in stock turns with its tender on a length of rail of 35 feet 6 inches.

It is very desirable that there should be an early adoption of a standard pattern loading gauge for interchange of traffic. So far as I am aware, all that is definitely settled at present about maximum moving dimensions is that they shall not exceed 13 feet 6 inches in height by 10 feet 6 inches in width. If a loading gauge of rectangular pattern had been adopted, there would then be no doubt about the matter, but at present, so far as I can gather from drawings, the loading gauges of the Great Southern of India, the Great Indian Peninsula, and the Madras Railways all differ in *shape* alone, so that although the maximum of 13 feet 6 inches by 10 feet 6 inches may not be exceeded in any one of them, yet wagons loaded in accordance with the gauge of one Railway Company may not pass through the gauges of either of the other two Companies.

(Signed) R. THOMPSON, Captain, R.E.,
Ag. Dy. Consulting Engineer for Railways.

NOTE.—All rolling stock provided with spring buffers and draw springs.

(True Copy.)

MADRAS, (Signed) J. H. M. SHAW-STEWART, Lieut.-Col., R.E.,
28th November 1872. *Consulting Engineer for Railways.*

GREAT SOUTHERN OF INDIA RAILWAY.

Stations where the minimum clear width between tracks is less than 6 feet.

Stations.	—	Remarks.
	FT. IN.	
Saliamungalum	5 10	
Boodalore	5 11	
Erode	4 8	

Proceedings of the Madras Government, Public Works Department, 19th December 1872.

Stations where the minimum clear distance of Platform wall from rail is less than 2 feet 6 inches.

Stations.	—	Remarks.
	FT. IN.	
Negapatam (Passengers.)	2 3	
Sickle (do.)	2 4	
Trivalore (do.)	2 4	
Kulikary (do.)	2 3	
Ammapettah (do.)	2 3	
Saliamungalum (do.)	2 3	
Boodalore (do.)	2 5	
Teroovembore (do.)	2 4	
Kulitalay (do.)	2 4	
Caroor (do.)	2 5	
Erode (do.)	2 5	Between Madras and Great Southern of India Railway tracks. Western terminus
Sickle (Goods.)	2 4	
Trivalore (do.)	2 4	
Ammapettah (do.)	2 3	
Saliamungalum (do.)	2 3	
Teroovembore (do.)	2 2	
Ellamanore (do.)	2 3	
Kulitalay (do.)	2 2	
Cuttalay (do.)	2 3	

Stations where the minimum clear height for over-openings above rails in centre of line, namely, 14 feet 6 inches, is not preserved in the case of doors of Goods sheds.

Stations.	Height.	Width.	Remarks.
	FT. IN.	FT. IN.	
Negapatam	14 6 ×	9 11	
Nedamungalum	14 7 ×	10 3	
Tanjore	15 7 ×	10 4	
Caroor	15 4 ×	9 11	

NOTE.—In Memorandum No. 8, dated London, 5th March 1856, circulated with the Order of Government, No. 1,986 of 20th August 1872, no mention is made of a maximum height or width for goods wagons. If they are to be the same as for passenger carriages, namely, 13 feet 6 inches by 10 feet 6 inches, it follows that all the abovementioned doorways are too narrow.

Stations where the height of Goods Shed Platforms is more than 3 feet 9 inches.

Stations.	—	Remarks.
	FT. IN.	
Negapatam (Eastern Terminus)	4 1	Outside Goods shed.
Sickle	3 10	
Lallapettah	3 10	
Caroor	3 10	
Poogalore	3 10	
Cudmudy	3 10	

Road-side Stations where the height of Passenger Platforms is more than 3 feet 3 inches.

Stations	——	Remarks.
	FT. IN.	
Sickle	3 10	
Trichinopoly	3 8	
Ellamanore	3 8	
Kulitalay	3 9	
Lallapettah	3 7	
Cuttalay	3 5	
Caroor	3 6	
Poogalore	3 9	
Cudumoody	3 10	
Passoor	3 6	

Dimensions of Rolling Stock.

——	Length between centres of wheels.		Extreme "width of steps."		Extreme width of roof.		Extreme width of body.		Centres of buffers above rail.		Width between buffers.		Height over lamp guard.	
	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
New Composite	11	0	9	7½	9	7½	8	6	3	6	6	5	11	6½
Salt Van and new Covered Goods	10	0	.....		8	11	8	1	3	6½	6	5	9	8½
Old Covered Goods ...	9	0	.....		8	10½	8	1	3	6½	6	6	10	4½
3rd Class Carriage	10	6	9	5½	8	11	8	6	3	6	6	5	11	2½
Open Goods	8	3	.....		.....		8	1	3	6	6	5	.....	

NOTE.—The maximum moving dimensions of rolling stock on the Great Southern of India Railway are found in the new composite carriage, measurements of which are given in the above list.

None of the dimensions of rolling stock on the Great Southern of India Railway are in excess of the maximum or less than the minimum measurements given in Memorandum No. 8, dated London, 5th March 1856, circulated with the Order of Government, No. 1,968 of 20th August 1872.

With the exception of four timber trucks all carriages and wagons have spring buffers and draw springs. The minimum diameter of turn-tables is 15 feet, and all the engines and tenders will turn on tables of 40 feet in diameter. The engine of greatest length on the line turns on a length of rail of 34 feet 6 inches.

I would here suggest the desirability of an early adoption of a standard pattern of loading gauge for interchange of traffic. So far as I am aware, all that is at present definitely settled about maximum moving dimensions is that they shall not exceed 13 feet 6 inches in height by 10 feet 6 inches in width. If a loading gauge of rectangular pattern were adopted there would then be no doubt about the matter, but at present, so far as I can gather from drawings, the loading gauges of the Great Southern of India, the Great Indian Peninsula, and the Madras Railways all differ in shape above, so that, although the maximum of 13 feet 6 inches by 10 feet

inches may not be exceeded in any one of them, yet wagons loaded in accordance with the gauge of our Railway Company may not pass through the gauges of either of the other two Companies.

(Signed) R. THOMPSON, Captain, R.E.,
Ag. Dy. Consulting Engineer for Railways.

(True Copy.)

MADRAS, 28*th November* 1872.

(Signed) J. H. M. SHAW-STEWART, Lieut.-Col., R.E.,
Consulting Engineer for Railways.

No. 436. ORDER THEREON, 19th December 1872, No. 3,021.

RAILWAY, No. 68.

ORDERED that these papers be forwarded to the Government of India.

(True Extract.)

(Signed) G. W. WALKER, Colonel, R. E.,
Secretary to Government.

No. 437. (DOCKET No 3,022, dated 19th December 1872.)

COPY of the above forwarded to the Government of India, with reference to their Nos. 1,209 G. R. and 35, dated 1st August 1872.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

Exd. T. Cartledge.

N. W. R.

Madras Railway.

Stations where the minimum clear width between tracks is less than 6 feet.

Line.	Station	Feet.	Inches.
South-West Line	Coimbatore	5	10
	Walliar	5	11
	Peranderay	5	10
	Erode	4	8
	Vaniembady	5	11
	Mailputty	5	11
North-West Line	Nundaloor	5	11
	Cuddapah	5	11
	Gooty	5	10
	Nuncherla	5	6
	Goondacul (on Bellary siding)	5	10
	Auspree	5	8
	Adoni	5	9
	Hoogee	5	7

Note. The distance between tracks at Tripetore was through an oversight not measured. Measurements will be taken on my next inspecting that station

Stations where the minimum clear distance of platform wall from rail is less than 2 feet 6 inches.

Line	Stations		Feet	Inches	Remarks
South-West line	Tiroor (Passengers platform)		2	5	
	Purley	Do	2	5	
	Paulghaut	Do	2	5	
	Erode	Do	2	5	Between Madras and G.I.P. Company's lines
	Mailpetty	Do	2	4	
	Goorciattum	Do	2	4	
	Vellore	Do	2	5	
	Sholinghur	Do	2	4	
	Arconum	Do	2	3	North 2'2" south side
	Chinnamapett	Do	2	4	North 2'4" south side
	Trivellore	Do	2	4	North
	Tiamanore	Do	2	4	
	Avady	Do	2	5	North 2'2" South side
	Perambore	Do	2	5	South side
	Royapooram	Do	2	5	North side

Line	Stations		Feet	Inches	Remarks
South-West line	Vaniembady (Goods platform)		2	5	
	Vellore	Do	2	5	
	Arconum	Do	2	4	
	Chinnamapett	Do	2	3	
	Cudambathore	Do	2	5	
	Beypore (Fuel platform)		2	5	7'5" high
	Paulghaut	Do	2	3	7'2" Do
	Salem	Do	2	0	7'5" Do
	Malloor (Passengers platform)		2	5	
North-West line	Arconum (North side) Passengers platform		2	3	Southern termini
	Do (South side)	Do	2	2	Do
	Tiruttany	Do	2	5	
	Tripetty	Do	2	4	
	Reddepolly	Do	2	5	
	Rajampet	Do	2	4	
	Woutimiettah	Do	2	4	
	Arconum (Goods platform)		2	4	Southern termini
	Tiruttany	Do	2	5	
	Tripetty	Do	2	1	
	Rajampet	Do	2	3	
	Cuddapah	Do	2	4	
	Canalapoor	Do	2	5	

Stations where the minimum clear height for over openings above rails in centre of line, viz: 14 feet 6 inches, is not preserved in the case of doors of goods sheds.

Line	Stations	High Feet	High Inches	Wide Feet	Wide Inches	Remarks
South-West Line	Erode	14	4	10	11	
	Mailpetty	14	5	10	10	
	Pholiughee	11	5	11	0	
	Arconum	14	3	11	0	
	Chinnamapett	14	4	10	11	
North-West Line	Arconum East side	14	3	11	0	South terminus
	Kinnelaur	14	5	11	4	
	Naggery	14	1	11	6	

Terminal stations where the height of passenger platforms is more than 3 feet 9 inches.

Line	Stations	Feet	Inches	Remarks
South-West Line	Royapooram	3	10	South side
	Moordanoor (Goods platform)	2	5	
	Koundapooram — Do —	2	5	
	Tadpatrie — Do —	2	5	
	Tripetty (Fuel platform)	1	11	6' 11" high
Bellary Branch	Veeraplour (Goods platform)	2	5	

Note. There is a fuel platform at Tripatore but through an oversight it was not measured. Measurement will be taken on my next inspection of that station.

Stations where the projection of fencing is more than 3 inches.

Line	Stations	Feet	Inches	Remarks
South-West Line	Meddikurry	0	4	
	Vellore	0	3½	

At Pothanore steps project 4 inches from the face of the platform wall in the goods shed.

Stations where the height of goods shed platforms is more than 3 feet 9 inches.

Line	Stations	Ft	Inches	Remarks
South West Line	Beyepore		4	Platforms as at present being lowered on date of my inspection.
	Wootapolliem	4		
	Meddekurry	4		
	Pothanore	3	11	
	Palaiu	4	2	
	Mullapooram	3	10	
	Moorapoor	4	0	
	Samulputty	4	0	
	Eriyatore	4	1	
	Vaniembady	4	0	
	Amboor	4	1	
	Mailputty	4	0	
	Goodiattum	4	2	
	Vellore	4	0	
	Tirumellum	3	10	
	Arcot	4	0	
	Sholinghur	4	0	
	Arconum	3	11	
	Chinnamapetto	4	0	

Line	Stations	Ft	Inches	Remarks
South West Line	Cuddambathore	4	0	
	Trevellore	4	0	
	Salt Cotaer North side	4	0	
	Do South side	3	9	varies to 4'
	Do Single shed	3	11	
Bangalore branch	Bangalore	4	3	Northern terminus
	Malloor	4	0	
	Colar Road	3	10	
	Coopum	4	2	
North West Line	Arconum	3	11	Southern terminus
	Tirutany	4	0	
	Puttoor	4	0	
	Tripetty	4	1	
	Coodoor	3	10	
	Reddipelly	4	0	
	Rojampett	4	3	
	Nundalore	4	0	
	Cuddapah	4	0	
	Auspree	4	2	
	Hoosgee	3	10	
Bellary branch	Bellary	3	10	

Road-side stations where the height of passenger platforms is more than 3 feet 3 inches.

Line	Stations	Ft.	Ins.	Remarks
South-West Line	Puttanchy	3	5	
	Pharamoor	3	5	
	Wootlapolliem	3	4	
	Purlay	3	5	
	Walliar	3	8	
	Somamoor	3	4	
	Wuthallee	3	4	
	Palem	3	4	
	Shevaroy Hills	3	5	
	Mullaporam	3	6	
	Jollerpett	3	5	
	Goonialtum	3	8	
	Vellore	3	6	
	Tirunellum	3	6	
	Arcot	3	7	
	Cudambathoor	3	5	South 3'6" North side
	Trivellore	3	10	South side
	Periamboor	3	8	South 3'8" North side
Bangalore Branch	Cadgoody	2	5	
	Malloor	3	5	
	Coopum	3	5	
	Jollarpett	3	5	Southern Terminus
	Ballapully	3	5	
North-West Line	Wootimettah	3	4	
	Toongabudra (South Bank)	3	4	

Dimensions of Rolling Stock.

Weight of body of composite carriage.
Weight of Bogie Carriage.
Width between the Footboards.
Centre of Buffers to Footboard.
Extreme length of Body.
Extreme width of Body.
Extreme width of Footboard.
Distance between centres of Bolsters.

New composite carriage 13' 9'-7½" 10'-4" 8'-7" 3'-6" 6'-5" 13'-2½" 7½'

Note. The maximum moving dimensions of rolling stock on the Madras Railway are found in the new composite carriages, measurements of which are given above.

None of the dimensions of rolling stock on the Madras Railway are in excess of the maximum or

C.S.

Exp than the minimum measurements
given in Memorandum 8 dated
London 5th March 1856, circulated with
G.O. No 1986 dated 20th August 1872
excepting in the distances between
centres of wheels, some of which
axes are as much as 13 feet apart.
All rolling stock however turns on
tables of 15 feet diameter.

The minimum diameter
of carriage turn tables over the Madras
Railway is 15 feet and all engines
and tenders turn on 60 feet turn tables.

The engine of greatest
length in stock, turns with its tender
on a length of rail of 35 feet 6 inches.

It is very desirable
that there should be an early
adoption of a standard pattern
loading gauge for interchange of
traffic. So far as I am aware
all that is definitely settled at
present about maximum moving
dimensions, is that they shall not
exceed 13 feet 6 inches in height
by 10 feet 6 inches in width. If
a loading gauge of rectangular
pattern had been adopted, there
would then be no doubt about
the matter, but at present, so far
as I can gather from drawings the
loading gauges of the Great Southern
of India, the Great Indian Peninsula,
and the Madras Railways all differ
in shape alone, so that although
the maximum of 13 feet 6 inches by
10 feet 6 inches may not be exceeded
in

in any one of them, yet wagons loaded in accordance with the gauge of one Railway Company may not pass through the gauges of either of the other two Companies.

(Signed) R. P. Thompson Captain R.E.
If. Dy Cons: Engr for Rys

Note. All rolling stock provided with spring buffers and draw springs.

(True Copy)
J. Nunn Stewart
Lieut Col R.E
Madras
28 November
1872. Consulting Engr for Railways

P. W. 6896/72

23

Great Southern of India Railway

Stations where the minimum clear width between tracks is less than 6 Feet.

Stations	Ft	In	Remarks
Saliamungalum	5	10	
Boodalore	5	11	
Erode	4	8	

Stations where the minimum clear distance of platform wall from rail is less than 2 feet 6 inches.

Stations	Ft.	In	Remarks
Negapatam (Passengers)	2	3	
Sickle (do)	2	4	
Trivalore (do)	2	4	
Kilikary (do)	2	3	
Ammapettah (do)	2	3	
Saliamungalum (do)	2	3	
Boodalore (do)	2	5	
Tersovembare (do)	2	4	
Kulitalay (do)	2	4	
Caroor (do)	2	5	
Erode (do)	2	5	Between Madras & G.S. of I. Rys trains & Western terminus

Stations		Ft	In	Remarks
Sickle	(Goods)	2	4	
Trivalore	(do)	2	4	
Ammapettah	(do)	2	3	
Paliamungalum	(do)	2	3	
Veravembore	(do)	2	2	
Ellamanore	(do)	2	3	
Kulitalay	(do)	2	2	
Cuttalay	(do)	2	3	

Stations where the minimum clear height for over openings above rails in centre of line, viz 14 ft 6 in. is not preserved in the case of doors of goods sheds.

Stations	Height Ft	Height In	Width Ft	Width In
Negapatam	14	6	9	11
Needamungalum	14	7	10	3
Tanjore	15	7	10	4
Caroor	15	4	9	11

Note. In memorandum No 8 dated London 5th March 1866, circulated with the Order of Government No 1986 of 20th August 1873, no mention is made of a maximum height or width for goods wagons. If they are to be the same as for passenger carriages viz 13'-6" x 10'-6": it follows that all the abovementioned doorways are too narrow.

Stations where the height of goods shed platforms is more than 3 feet 9 inches

Stations	Ft	In	Remarks
Negapatam (Eastern Terminus)	4	1	Outside goods shed
Sickle	3	10	
Lallapettah	3	10	
Caroor	3	10	
Pugalore	3	10	
Cudmeedy	3	10	

Roadside stations where the height of passenger platforms is more than 3 feet 3 inches.—

Stations	Ft	In	Remarks
Sickle	3	10	
Trichinopoly	3	8	
Ellamanore	3	8	
Kulitalay	3	9	
Lallapettah	3	7	
Cuttalay	3	5	
Caroor	3	6	
Pugalore	3	9	
Cudumaody	3	10	
Pugaroor	3	6	

Dimensions of Rolling Stock.

	Height now Lamp guard.	Width between Buffers	Centres of Buffers above rail	Extreme Width of Body	Extreme Width of Roof	Extreme Width of Steps	Length between Ends of Vehicle.
New Composite ———	11' 9-7½	9-7½	8-6	3-6	6-5	11-6½	
Salt Van and new Covered goods do	10'	8-11	8-1	3-6½	6-5	9-8½	
Old Covered goods ———	9'	8-10½	8-1	3-6½	6-6	10-4½	
3rd Class Carriage. ———	10-6	9-5½	8-11	8-6	3-6	6-5	11-2¾
Open Goods. ———		8-3		8-1	3-6	6-5	

Note.

The maximum moving dimensions of Rolling Stock on the Great Southern of India Railway are found in the new composite carriage. Measurements of which are given in the above list.

None of the dimensions of rolling stock on the Great Southern of

of India Railway are in excess of the maximum or less than the minimum measurements given in Memo No. 8 dated London 5th March 1856 circulated with the Order of Government No. 1986 of 20th August 1872.

With the exception of four timber trucks all carriages and waggons have spring buffers and draw springs. The minimum diameter of turn tables is fifteen feet and all the Engines and tenders will turn on tables of forty feet in diameter. The engine of greatest length on the line turns on a length of rail of 34 feet 6 inches.

I would here suggest the desirability of an early adoption of a standard pattern of loading gauge for interchange of traffic. So far as I am aware all that is

is at present definitely settled about maximum moving dimensions is that they shall not exceed 13'-6" in height by 10'-6" in width. If a loading gauge of rectangular pattern were adopted there would then be no doubt about the matter, but at present, so far as I can gather from drawings, the loading gauges of the Great Southern of India, the Great Indian Peninsula, and the Madras Railways all differ in shape above, so that although the maximum of 13'-6" x 10'-6" may not be exceeded in any one of them yet wagons loaded in accordance with the gauge of our Railway Company may not pass through the gauges of either of the other two Companies.

/sd/ Ross Thompson,
Captain, R.E.,

/True Copy/

Madras
28th Nov 1872
Examined
Asst Engineer

/sd/ [illegible]
Lieut. Col., R.E.,
Consulting Engineer for Railways

Railway Department.

CONSULTING ENGINEER'S OFFICE,

No. 656

From

LIEUT.-COLONEL J. H. M. SHAW STEWART, R.E.,

Consulting Engineer for Railways,

To

COLONEL G. W. WALKER, R.E.,

Secretary to Government,
Public Works Department,
Fort Saint George.

SIR,

In compliance with the instructions conveyed in the order of Government, dated the 20th and 29th August 1872, No. 1986 and 2169, the Officiating Deputy Consulting Engineer was requested to make a detailed inspection of all the structures and rolling stock belonging to the Madras and the Great Southern of India Railways, and to report

all cases in which deviations from the standard dimensions came to his notice. This duty has necessarily involved considerable labour, and I have now the honour to lay before Government the results of Captain Thompson's inspections.

2 The standard dimensions which were agreed upon in the year 1856 by the Guaranteed Companies and the Secretary of State are as follows:-

Minimum clear width between tracks	6 ft. 0 in.
Minimum clear distance of flat fence wall from track	2 ft. 6 in.
Projection of hoop not to exceed	0 in. 3 in.

Minimum clear height of all cuts & fences above rails in centre of each line	14 ft. 6 in.
Good loading gauge for interchange of traffic to be called the pattern	
Breadth from centre to centre of buffers	6 ft. 5 in.
Height of centres of buffers above rail to be 3 feet 6 inches for all goods stock hereafter to be constructed	
Passenger carriages — Extreme width of body	8 ft. 6 in.
" " of foot board	10 ft. 6 in.
" " of steps	11 ft. 0 in.
Length between centres of wheels (carriage and waggons) not exceeding	11 feet maximum.
Minimum diameter of turn-table	15 ft. 0 in.
Engine and tender to turn in	diameter
All carriages and waggons to have spring buffers and draw springs at both ends.	

3 These dimensions were considered

evidently incomplete. Nothing was fixed with reference to goods vehicles, and the height of platforms was not noticed. So far as the Railways in this Presidency were concerned, this last point was settled by the Madras Government in their order dated the 20th March 1856, No 85, where it was directed that platforms at terminal stations should have a height of four feet above rail level, and at other stations a height of 3 feet 3 inches.

This order has lately been modified, in order to accompany date the Rolling-stock of the Great Indian Peninsula Railway, and while the height of passenger platforms

G.O. No 2612 16th October 1872.

platforms at Roadside stations remains at 3 feet 3 inches, the heights of terminal passenger platforms and of all goods platforms is now fixed at 3 feet 9 inches.

4 In December 1856 a sketch of a loading gauge specifying the dimensions which had been agreed upon by certain of the Guaranteed Railway Companies, was forwarded by the Madras Railway Board to their Agents. A copy of this sketch is annexed to the order of Government dated the 16th October 1872, No 2612, but it does not seem to have been ever officially authorized by

by the Government of India for general adoption, and it does seem to be considerable doubt as to the dimensions and shape to be given to the upper part of the gauge. I beg to draw attention to the remarks made by Captain Thompson on this point. It is of great importance that all doubt on the subject should be cleared away, and that uniform dimensions and shape for the loading gauge of all the guaranteed Broad-gauge Railways should be authoritatively fixed.

5 It will be seen that in the case of four stations on the Great Southern of India Railway the doors of the goods sheds vary from 9 feet 11 inches to 10 feet 4 inches in width, and I solicit special instructions on this point. As pointed out by Captain Thompson, if goods vehicles are to be allowed the same maximum width as passenger carriages, namely, 10 feet 6 inches, the doors of these four sheds are too narrow.

6 I have called upon the Agents of the respective Companies to have the deviations reported on by Captain Thompson rectified without delay, and to let me know that this has been done.

I have the honour to be
Sir
Your most obedient
Humble Servant
Sd/ [illegible]
Secy. Govt. of Railways

Madras
20th November
1852

Examined by
[illegible]
Asst. Secy. to Govt.

Rec 20th Augt 1/2 N° 339-340
" 29 " 502 - 503
" 14 Oct " 232 - 238

RAILWAY DEPARTMENT.

Public Works 1872. Department

From

The Consulting Engineer
for Railways,

To

The Secretary to Government,
P. W. Department,
Fort Saint George.

Dated 25th Oct 1872.
Recd. 30th "

Nos 3021-3022-1902/72

No. 656.

Encls: 2.

Forwarding with observations Captain Thompson's report of all deviations from standard dimensions on the Madras & G.I.P. Rly with his recommendations thereon.

Copy of Letter from the Govt of India, Pub. Wks. Dept. No. 3024 dated 23rd Oct 1872 with enclosure forwarded to the Govt of India with reference to their letter No. 3024 dated 15th August 1872.

Rec'd 29/10/72 via Ootacamund

Recd 23/10/72

Copy of the above, forwarded to the Govt of India with reference to their letter No. 3024 dated 15th August 1872.

Rec'd 29/10/72 via Ootacamund

No 3024