

Public Works (1898) Department.

G.O., No.

1894 W

DATED

28 July '98

[Despatch Abstract.]

Rate list, class A — Bridge work
for 1897. Letter from the Director of
Construction forwarding copies of —
communicated to officers of
the C.W.D.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

P. W. 29
1,000-23-4-48.

Date.

G.O.

N

No.

Date.

[General Distribution.]

Circular No. 5.

FROM

THE DIRECTOR OF RAILWAY CONSTRUCTION,

TO

THE MANAGER, NORTH-WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE MANAGER, EASTERN BENGAL STATE RAILWAY.
THE MANAGER, EAST COAST RAILWAY.
THE ENGINEER-IN-CHIEF, INDUS BRIDGE WORKS AND BRITISH SECTION SHADI-PALLI-BALOTRA RAILWAY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY.
THE ENGINEER-IN-CHIEF, BEZWADA-MADRAS RAILWAY.
THE ENGINEER-IN-CHIEF, GODAVERI BRIDGE WORKS.
THE ENGINEER-IN-CHIEF, HURDWAR-DEHRA RAILWAY.
THE ENGINEER-IN-CHIEF, VIZIANAGRAM RAIPUR RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF BOMBAY-SIND CONNECTION SURVEY.
THE ENGINEER-IN-CHIEF REWARI KUCHAMAN CHORD RAILWAY SURVEY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List, Class A.—Bridgework for 1897.

Simla, the 25th May 1898.

SIR,

I have the honour to forward herewith, for information and guidance, a printed statement showing the actual English rates *free on board* in England for A Class, State Railway Stores, *viz.*, "Bridgework," contracted for by the Stores Department of the India Office during the year 1897.

2. A statement showing the average rates per ton for entire sea freight, on Bridgework sent out from England to the several ports in India during 1897, is prefixed to the Rate list.

3. In order to arrive at the total cost of the Bridgework landed in India, an insurance charge of one-half* per cent. on the *free on board* cost *plus* entire sea freight, should be added in addition to other incidental charges and exchange, which latter should be calculated at the official rate for the year.

4. A statement, showing the weight and f. o. b. cost of steel and iron for bridge girders, of 250 feet span and upwards, which have been obtained for state railways through the India Office up to end of 1897, has been added at end of the list as Appendix A.

I have the honour to be,

SIR,

Your most obedient Servant,

C. W. HODSON,
Director,

Documents accompanying.

1. Statement showing the average rates per ton for entire sea freight on class A. Stores imported from England to the several ports during 1897.
2. Rate List, Class A.—Bridgework for 1897.

*For State Railway Stores and Irrigation Works only classed as Imperial. Stores for Provincial and Local funds and for Railways constructed by Native States are charged one per cent, as heretofore.

The Secretaries to the Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, the Punjab, and Burma, Public Works Department.
 The Secretaries to the Chief Commissioners of the Central Provinces and Assam, Public Works Department.
 The Secretaries to the Residents at Hyderabad and in Mysore, Public Works Department.
 The Secretaries to the Agents to the Governor General, Rajputana and Central India, and Baluchistan, Public Works Department.
 The Superintendent of Port Blair and Chief Commissioner, Andaman and Nicobar Islands.
 The Director General of Telegraphs.
 The Director General of Military Works.
 The Chief Engineer, Kashmir.
 The Accountant General, Bengal.
 The Consulting Engineers for Railways, Madras and Bombay.
 The Consulting Engineers to the Government of India for Railways, Calcutta, Lucknow, Assam and Burma.

Copy forwarded to the Local Governments and Administrations and to the Officers noted in the margin for information, with the intimation that all Railway Administrations have been supplied with copies direct.

G. Dubboch *Liut HRE*

To

THE

Secretary to the Govt of Madras
Public Works Dept.

for Director.

with 60 spare copies

sent per Packet Post

(in 2 Packets)

Enclosure to Director of Railway Construction's Circular No. 5 of 1898.

RATE LIST.

CLASS A.
 BRIDGE WORK
 FOR 1897.

G. C. Press, Simla.—No. 1466 P. W. D.—31-5-98.—45.

06/5/98
253/98

STATEMENT showing the average rates per ton for entire Sea Freight on Bridgework sent out from England to the several ports in India for State Railways of both gauges during 1897.

Description of girders.	Karachi.	Bombay.	Calcutta.	Coconada, Vizagapatam, or Madras.	Rangoon.	REMARKS.
Clear span 6 feet	s. d. ...	s. d. ...	s. d. ...	s. d. ...	s. d. ...	
" 10 "					30 0	
" 12 "				40 0		
" 20 "			32 6		30 0	
" 30 "						
" 40 "			55 0	55 0	30 0	
" 60 "			32 0			
" 100 "						
" 350 "						

NOTE.—Where rates have not been quoted, it should be understood that girders of the dimensions specified were not imported during the year.

CLASS OF STORES. A.—BRIDGEWORK.

5' 6" GAUGE.

Contracted for in 1897.

Contract number and date.	Clear span.	Railway.	Roadway on upper or lower boom.	Details.	Estimated weight of each span.				RATE—FREE ON BOARD.			REMARKS.	
					Tons.	cwt.	qr.	lbs.	Amount	Unit.			
									£	s.	d.		
71 370		North Western	Upper (decked).	For all steel in girder-work, including rivets, spare rivets, and rivet rods.	1	6	2	7	10	5	0	Ton.	* 12' 6" out to out.
				For all bolts, nuts, and washers, except service bolts	0	1	1	21					
				For all service bolts, nuts, and washers	0	0	0	21					
				Girders, rolled, * 10 feet, complete, including bolts, rivets, &c.	1	8	0	21	14	8	11	Span.	
70 360	28-5-97	Rae Bareli Benares	Upper (decked).	For all steel in girder-work, including rivets, spare rivets, and rivet rods	3	14	0	7	10	0	0	Ton.	
				For all bolts, nuts, and washers, except service bolts	0	2	0	7					
				For all service bolts, nuts, and washers	0	0	1	14					
				Girders, rolled, 20 feet, complete, with bolts, rivets, &c.	3	16	2	0	38	5	0	Span.	

CLASS OF STORES. A.—BRIDGEWORK.—(continued.)

5' 6" GAUGE.

Contracted for in 1897.

Contract number and date.	Clear span.	Railway.	Roadway on upper or lower boom.	Details.	Estimated weight of each span.	RATE—FREE ON BOARD.			REMARKS.
						Amount.	Unit.		
71 254	16-6-97	North-Western	Upper (corrugated decking).	For all steel in girder-work, including rivets, spare rivets, and rivet rods...	Tons. cwt. qr. lbs.	£	s.	d.	
				For all bolts, nuts, and washers, except service bolts	6 9 0 21				
				For all service bolts, nuts, and washers	0 0 2 7	11	5	0	Ton.
				Girders, plate, 23 feet 3 inches out to out, with all bolts, rivets, &c.	6 10 2 0	73	8	0	Span.
67 98	9-2-97	Eastern Bengal	Lower	For all steel in girder-work, including rivets, spare rivets, rivet rods and all bolts, nuts, washers and service bolts	10 2 3 14	9	15	0	Ton.
				For all steel in angle bars with sheared ends	0 19 0 0	7	10	0	"
				For $\frac{5}{8}$ steel rivets	0 6 2 10 $\frac{1}{2}$	12	0	0	"
				Girders, plate, end span 30 feet, complete, with bolts, rivets, &c.	11 8 1 24 $\frac{1}{2}$	109	19	6	Span.

67 98	9-2-97	Ditto	Lower	For all steel in girder-work, including rivets, spare rivets, rivet rods and all bolts, nuts, washers and service bolts	10 2 0 7	9	15	0	Ton.
				For all angle bars with sheared ends	0 19 0 0	7	10	0	"
				For $\frac{5}{8}$ steel rivets	0 6 2 10 $\frac{1}{2}$	12	0	0	"
				Girders, plate, Intermediate 30 feet, complete, with all bolts, rivets, &c.	11 7 2 17 $\frac{1}{2}$	109	11	3	Span.
71 254	16-6-97	North Western	Upper (decked).	For all steel in girder-work, including rivets, spare rivets, and rivet rods...	9 14 2 14				
				For all bolts, nuts, and washers, except service bolts	0 0 1 21	11	5	0	Ton.
				For all service bolts, nuts, and washers	0 0 3 0				
				Girders, plate, 30 feet, complete, including bolts, rivets, &c.	9 15 3 7	110	0	0	Span.
71 254	16-6-97	Ditto	Ditto	For all steel in girder-work, including rivets, spare rivets, and rivet rods	9 14 1 12				
				For all bolts, nuts, and washers, except service bolts	0 0 0 25	11	5	0	Ton.
				For all service bolts, nuts, and washers	0 0 3 0				
				Girders, plate, 30 feet, complete, with all bolts, rivets, &c.	9 15 1 9	110	0	0	Span.

For bridge at mile 991.2.

For bridge at mile 994.4.

CLASS OF STORES. A.—BRIDGEWORK—(continued).

5' 6" GAUGE.

Contracted for in 1897.

Contract number and date.	Clear span.	Railway.	Roadway on upper or lower boom.	Details.	Estimated weight of each span.	RATE—FREE ON BOARD.		REMARKS.
						Amount.	Unit.	
71 254	16-6-97	North Western	Upper (decked).	For all steel in girder-work, including rivets, spare rivets, and rivet rods ... For all bolts, nuts, and washers, except service bolts ... For all service bolts, nuts, and washers ...	Tons. cwt. qr. lbs. 9 14 1 21 0 0 1 0 0 0 3 0	£. d. s. 11 5 0	Ton.	For bridge at mile 1001-19.
72 290	22-7-97	Goonah-Bara ...	Upper.	Girders, plate, 30 feet, complete, with bolts, rivets, &c. For all steel in girder-work, including rivets, spare rivets, and rivet rods ... For all bolts, nuts, and washers, except service bolts ... For all service bolts, nuts, and washers ...	9 15 1 21 10 11 1 21 0 3 0 7 0 0 3 0	110 0 0	Span.	For Lahssi river bridge.
				Girders, plate, 40 feet, complete, with all bolts, rivets, &c.	10 15 1 0	114 7 0	Span.	

73 187	21-8-97	North Western	Between (corrugated decking).	For all steel in girder-work, including rivets, spare rivets, and rivet rods ... For all bolts, nuts, and washers, except service bolts ... For all service bolts, nuts, and washers ...	Tons. cwt. qr. lbs. 23 5 2 7 0 0 2 7 0 4 2 0	£. s. d. 11 10 0	Ton.	For bridge at Manakiala.
66 213	18-1-97	Kotri-Rohri North Western	Between (corrugated decking).	Girders, plate, 40 feet, complete, including bolts, rivets, &c. For all steel in girder-work, including rivets, spare rivets and rivet rods ... For all bolts, nuts, and washers, except service bolts ... For all service bolts, nuts, and washers ...	23 10 2 14 39 1 1 21 0 1 0 21 0 4 2 0	270 12 6	Span.	Faded bridge.
67 228	19-2-97	Oudh and Rohilkhand	Upper	Girders, plate, 60 feet, complete, with all bolts, rivets, &c. For all steel in girder-work, including rivets, spare rivets, and rivet rods ... For all bolts, nuts, and washers, except service bolt ... For all service bolts, nuts, and washers ...	39 7 0 14 26 0 3 0 0 4 2 7 0 3 0 0	442 15 0	Span.	Square span.

CLASS OF STORES. A.—BRIDGEWORK—(continued).

5' 6" GAUGE.

Contracted for in 1897.

Contract number and date.	Clear span	Railway.	Roadway on upper or lower boom.	Details.	Estimated weight of each span.	RATE—FREE ON BOARD.			REMARKS.
						Amount.	Unit.		
					Tons. cwt. qr. lbs.	£	s.	d.	
				For all steel in girder-work, including rivets, spare rivets, and rivet rods ...	29 9 0 0				
				For all bolts, nuts, and washers, except service bolts ...	0 4 1 21	9	13	0	Skew span.
				For all service bolts, nuts, and washers ...	0 3 0 0				
67 228	19-2-97	Oudh and Rohilkhand.	Upper	Girders, plate, 60 feet, complete, with all bolts, rivets, &c. ...	29 16 1 21	287	15	7	Span.
				For all steel in girder-work, including rivets, spare rivets, and rivet rods ...	26 2 3 14				
				For all bolts, nuts, and washers, except service bolts ...	0 4 3 0	10	12	6	Ton.
				For all service bolts, nuts, and washers ...	0 3 0 0				For Andheri and Betli river bridges.
72 290	22-7-97	Goona-Bara ...	Upper	Girders, plate, 60 feet, complete, including bolts, rivets, &c. ...	26 10 2 14	281	18	0	Span.

74 206	16-9-97	60	Ditto	...	For all steel in girder-work, including rivets, spare rivets, and rivet rods, ...	26 2 3 14				
					For all bolts, nuts, and washers, except service bolts. ...	0 4 3 0	10	12	6	Ton.
					For all service bolts, nuts, and washers ...	0 3 0 0				
			Ditto		Girders, plate, 60 feet, complete, with all bolts, rivets, &c. ...	26 10 2 14	281	18	0	Span.
					For all steel in girder-work, including rivets, spare rivets, and rivet rods ...	41 12 0 0				
					For all bolts, nuts, and washers, except service bolts ...	0 1 1 0	10	10	0	Ton.
					For all service bolts, nuts, and washers ...	0 3 0 0				
75 111	12-10-97	72' 4"	Oudh and Rohilkhand.	Upper.	Girders, plate, 72 feet 4 inches, complete, with bolts, rivets, &c. ...	41 16 1 0	439	0	8	Span.
					For all steel in girder-work, including rivets, black bolts, &c. ...	118 14 0 14	10	10	0	Ton.
					Steel in expansion gear and turned bolts ...	0 16 1 14	23	11	6	"
					Cast iron ...	3 7 1 0	14	8	0	"
					Malleable cast iron ...	0 5 2 0	26	0	0	"
66 307	23-1-97	100	Kotri-Rohri N.W.	Between with foot paths on both sides.	Girders, triangulated, 100 feet, complete, with all bolts, rivets, &c. ...	123 3 1 0	1,321	6	0	Span.

For Gurrah bridge.

* Over end plates.

CLASS OF STORES. A.—BRIDGEWORK—(continued).

5' 6" GAUGE.

Contracted for in 1897.

Contract number and date.	Clear span	Railway.	Roadway on upper or lower boom.	Details.	Estimated weight of each span.	RATE—FREE ON BOARD.		REMARKS.
					Tons. cwt. qr. lbs.	Amount.	Unit.	
	Ft.					£ s. d.		
72 290	22-7-97	Goona-Bara	Lower	For all steel in girder-work, including rivets, spare rivets, and rivet rods...	87 13 1 7			For Parbati bridge.
				For all bolts, nuts, and washers, except service bolts ...	0 2 1 0			
				For all service bolts, nuts, and washers ...	0 6 0 0	10 12 6	Ton.	
				Bed plates and floor connections, &c., for one span ...	1 3 2 26			
				Girders, triangulated, 100 feet, complete, including bolts, rivets, &c. ...	89 5 1 5	*948 9 3	Span.	* Includes cost of one bed plate.
66 307	23-1-97	Kotri-Rohri N. W.	Lower with foot paths both sides.	For all steel in girder-work, including rivets, black bolts, &c. ...	870 10 3 0	12 2 6	Ton.	
				Steel in expansion gear and turned bolts ...	12 14 0 0	23 11 6	"	
				Cast iron ...	42 17 2 0	14 8 0	"	
				Malleable cast iron ...	0 17 1 0	26 0 0	"	
				Girders, triangulated, 350 feet, complete, with all bolts, rivets, &c. ...	926 19 2 0	2,298 18 0	Span.	

Cross and Rail girders quantities in two spans—		Cross girders—		T. c. qr. lbs.	
		Plates and packings ...		8 18 2 0	
		Angle bars ...		17 5 0 0	
		T bars ...		1 4 0 0	
		Rail girders—			
		Channel bars and covers 18 18 0 0			
		Plates and covers 9 9 0 0			
		Rivet heads and spare rivets assumed at 5 per cent, on the above ...			
		Service bolts, nuts, and washers ...			
		Cross and rail girders, for two spans of 129 feet in the clear complete, with all bolts, rivets, &c.			
		Spare parts—			
		4,000 galvanized hook bolts ...			
		Total ...			
66 260	20-1-97	*129	North-Western, East-Beyne Bridge.	27 7 2 0	9 5 5
74 381	29-9-97	...	North-Western	58 11 3 0	543 3 0
				7 3 0 0	21 15 0
					155 10 3

*136 feet 9 inches over all.

CLASS OF STORES. A.—BRIDGEWORK—(continued.)

METRE GAUGE.

Contracted for in 1897.

10

Contract number and date	Clear span.	Railway.	Roadway on upper or lower boom.	Details.	Estimated weight of each span.	RATE—FREE ON BOARD.			REMARKS.
						Amount.	Unit.		
					Tons, cwt. qr. lbs.	£ s. d.			
70 361	28-5-97	6	Eastern Bengal	For all steel in girder-work, including rivets, spare rivets, and rivet rods ...	0 9 1 0				Mymensingh-Jamalpur extension.
				For all bolts, nuts, and washers, except service bolts ...	0 1 1 21	10 0 0	Ton.		
				For all service bolts, nuts, and washers ...	0 0 0 21				
				Girders, rolled, 6 feet, complete, with bolts, rivets, &c.	0 10 3 14	5 8 9	Span.		
72 437	30-7-97	6	Ditto	For all steel in girder-work, including rivets, spare rivets, and rivet rods...	0 9 1 0				Sultanpur-Bogra-Kaliganj extension.
				For all bolts, nuts, and washers, except service bolts ...	0 1 1 21	10 5 0	Ton.		
				For all service bolts, nuts, and washers ...	0 0 0 21				
				Girders, rolled, 6 feet, complete, with all bolts, rivets, &c.	0 10 3 14	5 11 6	Span.		

11

72 437	30-7-97	10	Eastern Bengal	Upper	For all steel in girder-work, including rivets, spare rivets, and rivet rods ...	0 17 0 21	10 5 0	Ton.	Sultanpur-Bogra-Kaliganj extension.
					For all bolts, nuts, and washers, except service bolts ...	0 1 3 14			
					For all service bolts, nuts, and washers ...	0 0 0 21			
					Girders, rolled, 10 feet, complete, including bolts, rivets, &c.	0 19 1 0	9 17 4	Span.	
72 437	30-7-97	12	Ditto	Ditto	For all steel in girder-work, including rivets, spare rivets, and rivet rods...	1 0 3 0	10 5 0	Ton.	Mymensingh-Jamalpur Extension
					For all bolts, nuts, and washers, except service bolts ...	0 2 0 0			
					For all service bolts, nuts, and washers ...	0 0 0 21			
					Girders, rolled, 12 feet, complete, with all bolts, rivets, &c.	1 2 3 21	11 15 2	Span.	
70 361	28-5-97	20	Ditto	Upper.	For all steel in girder-work, including rivets, spare rivets, and rivet rods ...	2 17 3 0	10 0 0	Ton.	
					For all bolts, nuts, and washers, except service bolts ...	0 2 3 7			
					For all service bolts, nuts, and washers ...	0 0 0 21			
					Girders, rolled 20 feet, complete, with bolts, rivets, &c.	3 0 3 0	30 7 6	Span.	

CLASS OF STORES. A.—BRIDGEWORK—(concluded).

METRE GAUGE.

Contracted for in 1897.

Contract number and date.	Clear span.	Railway.	Roadway on upper or lower boom.	Details.	Estimated weight of each span.	RATE—FREE ON BOARD.			REMARKS.
						Amount.	Unit.		
					Tons. owt. qr. lb.	£ s. d.			
72 437	30-7-97	20 Eastern Bengal	Upper.	For all steel in girder-work, including rivets, spare rivets, and rivet rods ...	2 17 3 0				Sultanpur-Bogra-Kaliganj extension.
				For all bolts, nuts, and washers, except service bolts ...	0 2 3 7	10 5 0	Ton.		
				For all service bolts, nuts, and washers ...	0 0 1 14				
				Girders, rolled, 20 feet, complete, with all bolts, rivets, &c.	3 0 3 21	31 4 8	Span.		
69 385	23-4-97	40 Eastern Bengal	Upper(open.)	For all steel in girder-work, including rivets, spare rivets, and rivet rods ...	9 12 1 14				Mymensingh-Jamalpur Extension.
				For all bolts, nuts, and washers, except service bolts ...	0 4 2 21	10 5 6	Ton.		
				For all service bolts, nuts, and washers	0 1 2 0				
				Girders, plate, 40 feet, complete, including bolts, rivets, &c.	9 18 2 7	102 0 2	Span.		

72 288	22-7-97	40 Eastern Bengal	Upper.	For all steel in girder-work, including rivets, spare rivets, and rivet rods ...	9 17 2 7	11 2 6	Ton.	Sultanpur-Bogra-Kaliganj extension.
				For all bolts, nuts, and washers, except service bolts ...	0 4 2 21			
				For all service bolts, nuts, and washers	0 1 2 0			
				Girders, plate, 40 feet, complete, with all bolts, rivets, &c.	10 3 3 0	113 6 9	Span.	
				For all steel in girder-work, including rivets, spare rivets, and rivet rods ...	21 17 1 7			
				For all bolts, nuts, and washers, except service bolts ...	0 6 1 21	11 2 6	Ton.	Sultanpur-Bogra-Kaliganj Extension.
				For all service bolts, nuts, and washers	0 3 0 0			
72 289	22-7-97	60 *Eastern Bengal	Upper.	Girders, plate, 60 feet, complete, with bolts, rivets, &c.	22 6 3 0	248 10 1	Span.	

Enclosure to Director of Railway Construction's Circular No. 5 of 1898.

Appendix A.

Statement showing bridge girders of 250 feet span and above which have been obtained for State Railways through the India Office up to end of 1897.

Number of India Office contracts.	Name of Contractors.	Clear span feet.	Gauge.	Price f. o. b. in England.	For what bridge and railway.	Approximate quantity of steel and iron.	REMARKS.
A 125 of 1884	Westwood, Baillie & Co.	250	Metre ...	£ s. d. 4,010 0 0	Bellary-Kistna railway. (This span was originally intended for the Jhansi-Manikpur railway).	Steel Wrought iron Cast iron Bolts, screws, etc... Tons. 219 96½ 13½ 4	Main girders, cross girders, longitudinal girders, and floor-plates are of steel. The whole of the rivets are of steel.
A 163 of 1885	Westwood, Baillie & Co.	250	Do. ...	3,991 0 0	Gunduck bridge, Tirhoot State railway.	Steel Wrought iron Cast iron Bolts, etc. 215 88½ 13½ 3½	Main girders are of steel with the exception of plates and angle bars of diaphragms, cross girders, overhead girders footways, hand-rails, floor, etc., are of wrought iron. The overhead diagonal bracing and gussets are of steel.
A 41 of 1876	Head, Wrightson & Co.	250	5' 6" ...	5,942 0 0 5,964 0 0	Sutlej bridge, Adam-wahan.	Wrought iron Cast iron Steel 320 383½ 15½ 5	Rollers and knuckle pins only are of steel.
A 76 of 1880	Westwood, Baillie & Co.	257 (centres of bearing.)	5' 6" ...	4,463 0 0	Indus bridge at Attock	Steel Wrought iron Cast iron 241½ 144½ 12½	Top and bottom booms of main girders and pillars, bracing of steel.
A 77 "	Westwood, Baillie & Co.	308	5' 6" ...	N ^o t given in the contract.	Ditto	398½ 553½	314 feet measured from centre to centre of piers was ordered and the girder supplied was for openings of 308 feet. No schedule of quantities for this contract was received.
A 116 of 1883	Westwood, Baillie & Co.	278 (centre of bearings.)	5' 6" ...	8,842 0 0	Indus bridge at Sukkur	Steel Wrought iron Cast iron 866 138½ 19	Main girders are of steel with the exception of plates and angle bars of diaphragms in the top boom, the bracings and connections of the angle bars of the vertical struts, the stiffenings of the tension bars and the tapered packings of the angle bars on the inside of the upper boom which parts are of wrought iron, curb plates, longitudinal girders on the footways diagonal bracing under roadway, corrugated floor-plates, etc., are of steel.
146 of 1885	Westwood, Baillie & Co.	Two cantilevers, each 310 feet long.	5' 6" ...	49,403 0 0 (average for each.)	Ditto.	Steel Iron Bukkur Cantilever. 1,417 13½	
4711 of 1891	P. and W. Mclellan ...	300	5' ...	6,459 0 0 & 6,421 0 0	Kistna bridge	Steel Iron Hoji-Motu Cantilever. 1,430½ 1,433½ 13½	All steel except bed-plates for trimmers, the chipping pieces under the bed-plates of the girders span, the tubular portion of the bracing of the large pillar and of No. 3 strut and all bolt and screws, all of which are of wrought iron.
4712 "	Head, Wrightson & Co.	350	5' ...	11,464 10 0	Indus Bridge Kotri	Total weight, 535½ tons (exclusive of snaps.) Steel Cast iron Wrought iron 883½ 43½ 43½	All steel except the saddles, knuckles and bed-plates, which are of cast iron and the rolled frames and service bolts which are either of iron or steel.
66 of 1897	Thames Ironworks Co.	350	5' 6" ...			Steel Cast iron Wrought iron 883½ 43½ 43½	All steel except the saddles, knuckle bearers at fixed and expansion ends and the roller bed plates which are of cast iron, and rail clips of malleable cast iron.
307						TOTAL ... 927	