P. W. CURRENT No. 7352

The Secretaries to the Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, and the Punjab, Public Works Department.
The Secretaries to the Chief Commissioners of the Central Provinces, Burma, 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, Central Division and Assam.

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.

Lucey Lieut.-Colonel, R.E.,
Offg. Director General of Railways.

To

THE Secretary to the Government of Madras,
Public Works Department.

60 s.c
Recs: 1-10-94
Encls (60 s.c)

No. 25176 d/ 11 October 18/

Communicated to Officers of the M.S. Dept.

No. 16616 d/ 23-6-93

DESPATCHED
15 OCT. 94

Cir 4/10/94

Cir. to 9 ; 1 copy 1 circular, 2 copies gratis
Supdg. 6 — 7 —
Cr. Cogn. 1 — 3
S. & W. C. P. 2 — 3
Bom. Mos. 2 — 3

2 Secs to Govt

INDEXED
16/10 J. C. L. 16/10

G. C. Press, Simla.—No. 108 P. W. D.—11-9-94.—940.

0.2.5.394
R 9/10

[*General Distribution.*]

Circular No. 7.

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

TO

THE MANAGER, NORTH WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE MANAGER, EASTERN BENGAL STATE RAILWAY.
THE MANAGER, BURMA STATE RAILWAY.
THE MANAGER, EAST COAST RAILWAY.
THE ENGINEER-IN-CHIEF, MU VALLEY STATE RAILWAY.
THE ENGINEER-IN-CHIEF, MUSHKAF-BOLAN STATE RAILWAY.
THE ENGINEER-IN-CHIEF, BINA-GUNA RAILWAY.
THE ENGINEER-IN-CHIEF, BHOPAL-UJAIN RAILWAY.
THE ENGINEER-IN-CHIEF, CHITTORE-ODEYPORE RAILWAY.
THE ENGINEER-IN-CHIEF, CUTTACK-MIDNAPUR-CALCUTTA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, KALKA-SIMLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MANDALAY-KUNLON RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, DELHI-MINCHINABAD RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, CHITTAGONG-AKYAB-MINHLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, UMARKOT PACHPADRA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, SAUGOR KATNI RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MADRAS BEZWADA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, N. W. RAILWAY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List, Class B.—"Engineers' Plant" (Excluding Petty Tools), for 1893.

Simla, the 6th September 1894.

SIR,

I have the honour to forward, for information and guidance, a printed statement showing the actual English rates, *free on board* in England, for Class B Stores, "Engineers' Plant" (excluding Petty Tools), contracted for by the Stores Department of the India Office during 1893.

2. A table giving the average rates of sea freight for Class B Stores imported from England to the several ports in India for State Railways during 1893, is prefixed to the Rate List.

3. In order to arrive at the total cost of class B stores 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.

I have the honour to be,

SIR,

Your most obedient Servant,

F. Gracey,
~~W. S. S. BISSET~~, Lieut.-Colonel, R.E.,
Offg. Director General of Railways.

Documents accompanying.

1. Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.
2. Rate List, Class B.—"Engineers' Plant" (excluding petty tools), for 1893.

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

[*General Distribution.*]

Circular No. 7.

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

TO

THE MANAGER, NORTH WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE MANAGER, EASTERN BENGAL STATE RAILWAY.
THE MANAGER, BURMA STATE RAILWAY.
THE MANAGER, EAST COAST RAILWAY.
THE ENGINEER-IN-CHIEF, MU VALLEY STATE RAILWAY.
THE ENGINEER-IN-CHIEF, MUSHKAF-BOLAN STATE RAILWAY.
THE ENGINEER-IN-CHIEF, BINA-GUNA RAILWAY.
THE ENGINEER-IN-CHIEF, BHOPAL-UJAIN RAILWAY.
THE ENGINEER-IN-CHIEF, CHITTORE-ODEYPORE RAILWAY.
THE ENGINEER-IN-CHIEF, CUTTACK-MIDNAPUR-CALCUTTA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, KALKA-SIMLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MANDALAY-KUNLON RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, DELHI-MINCHINABAD RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, CHITTAGONG-AKYAB-MINHLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, UMARKOT PACHPADRA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, SAUGOR KATNI RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MADRAS BEZWADA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, N. W. RAILWAY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List, Class B.—" Engineers' Plant " (Excluding Petty Tools), for 1893.

Simla, the 6th September 1894.

SIR,

I have the honour to forward, for information and guidance, a printed statement showing the actual English rates, *free on board* in England, for Class B Stores, " Engineers' Plant " (excluding Petty Tools), contracted for by the Stores Department of the India Office during 1893.

2. A table giving the average rates of sea freight for Class B Stores imported from England to the several ports in India for State Railways during 1893, is prefixed to the Rate List.

3. In order to arrive at the total cost of class B stores 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.

I have the honour to be,

SIR,

Your most obedient Servant,

F. Gracey,
~~W. S. S. BISSET~~, Lieut.-Colonel, R.E.,
Offg. Director General of Railways.

Documents accompanying.

1. Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.
2. Rate List, Class B.—" Engineers' Plant " (excluding petty tools), for 1893.

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

Enclosure to Director-General of Railways' Circular No. 7 of 1894.

2617

RATE LIST.

CLASS B.

ENGINEERS' PLANT.

(Excluding Petty Tools.)

FOR 1893.

G. C. Press, Simla.—No. 103 P. W. D.—12-9-94.—946.

Enclosure to Director-General of Railways' Circular No. 7 of 1894.

RATE LIST.

CLASS B.

ENGINEERS' PLANT.

(Excluding Petty Tools.)

FOR 1893.

Enclosure to Director-General of Railways' Circular No. 7, dated the 6th September 1894.

Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.

Class of Stores.	Kurrachee.	Bombay.	Coconada or Vizagapatam.	Calcutta.	Rangoon.	Remarks.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	
Class B.—"Engineers' Plant" (excluding Petty Tools).	14 0	10 9	15 6	*21 6	24 9	* 50*s.* for stationary engine.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
				£ s. d.			
22/190	16-5-93	Pulleys and Brackets	For Pit head gear. Pullies to be suited for wire rope, 4″ circumference ...	11 12 0	Each.	Warora Colliery.	
22/307	26-5-93	Pumps, feed ...	"Worthington" Horizontal, duplex type, capable of delivering 1,200 gallons each per hour, and suited for a working pressure of 60 lbs. per square inch, and having 4½″ diameter, steam cylinders, 2 double acting water-plungers, 2¾″ diameter, all having a uniform stroke of 4″ ...	37 10 0	Each.	Warora Colliery.	
		Pumps, plunger ...	24 inches diameter and 10 feet stroke, for sinking pit and permanent use to drain mine	975 0 0	Each.	Warora Colliery.	
22/190	16-5-93	Pumps, sand ...	Four buckets. Lifts consisting of 4 working barrels, each 17″ diameter, by 10-foot stroke four buckets with knock off joints, four suction valves and seats, with all necessary bolts and nuts, and jointing material. Each pump to be suitable for sinking to a depth of 250 feet	83 6 8	Each.	Warora Colliery.	
		Pumps, sinking ...	Barrels, 17 inches diameter and 10 feet stroke, suited for sinking 250 feet and for bore holes 50 feet deep.	1,115 0 0	Each.	Warora Colliery.	

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
				£ s. d.			
29/17	4-12-93	Rollers ...	Horizontal, 11″ long, 5″ diameter at centre, cast steel, complete, with pedestals.	0 16 0	Each.	Dandot Colliery.	
22/190	16-5-93	Ropes ...	Hemp, tarred, flat, 250 feet long, suitable for working the trepans ...	50 0 0	Each.	Warora Colliery.	
			Wire, steel, 4″ circumference, each pair to be suitable for hanging the staging in a pit, 14 feet diameter and 900 feet deep	50 0 0			
23/90	9-6-93		Wire, steel, winding, 400 yards long, 3½″ circumference, suitable for raising coal from a pit 900 feet deep	49 0 0			
			Wire, steel, conductor, 325 yards long, to consist of 7 strands, ⅜″ diameter ...	32 17 6			

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
22/190 16-5-93	Pulleys and Brackets	For Pit head gear. Pullies to be suited for wire rope, 4″ circumference ...	11 12 0	Each.	Warora Colliery.	
22/307 26-5-93	Pumps, feed ...	"Worthington" Horizontal, duplex type, capable of delivering 1,200 gallons each per hour, and suited for a working pressure of 60 lbs. per square inch, and having 4½″ diameter, steam cylinders, 2 double acting water-plungers, 2¾″ diameter, all having a uniform stroke of 4″ ...	37 10 0	Each.	Warora Colliery.	
22/190 16-5-93	Pumps, plunger ...	24 inches diameter and 10 feet stroke, for sinking pit and permanent use to drain mine	975 0 0	Each.	Warora Colliery.	
	Pumps, sand ...	Four buckets. Lifts consisting of 4 working barrels, each 17″ diameter, by 10-foot stroke four buckets with knock off joints, four suction valves and seats, with all necessary bolts and nuts, and jointing material. Each pump to be suitable for sinking to a depth of 250 feet	83 6 8	Each.	Warora Colliery.	
	Pumps, sinking ...	Barrels, 17 inches diameter and 10 feet stroke, suited for sinking 250 feet and for bore holes 50 feet deep.	1,115 0 0	Each.	Warora Colliery.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
29/17 4-12-93	Rollers ...	Horizontal, 11″ long, 5″ diameter at centre, cast steel, complete, with pedestals.	0 16 0	Each.	Dandot Colliery.	
22/190 16-5-93	Ropes ...	Hemp, tarred, flat, 250 feet long, suitable for working the trepans ...	50 0 0	Each.	Warora Colliery.	
		Wire, steel, 4″ circumference, each pair to be suitable for hanging the staging in a pit, 14 feet diameter and 900 feet deep	50 0 0			
23/90 9-6-93		Wire, steel, winding, 400 yards long, 3½″ circumference, suitable for raising coal from a pit 900 feet deep	49 0 0			
		Wire, steel, conductor, 325 yards long, to consist of 7 strands, ⅜″ diameter ...	32 17 6			

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount. £ s. d.	Unit.	For what railway.	Remarks.
Colliery Plant.						
22/307 — 26-5-93	Boilers ...	(Lancashire) 30 feet long and 7 feet diameter with all fittings complete. Working pressure 60 lbs. per square inch.	325 0 0	Each.	Warora Colliery ...	Approximate weight, 17 tons.
22/190 — 16-5-93	Engines, Steam ...	Crab, 20 tons, with two drums each, for two wire ropes.	760 0 0	Each.	Warora Colliery.	Approximate weight, 30 tons.
		Pumping, horizontal, compound, differential, surface-condensing, complete.	4,170 0 0	„		Approximate weight, 127 tons.
22/270 — 20-5-93		Winding, fixed, coupled, horizontal, non-condensing, stationary, with duplicate parts, &c., &c., and fitted with balanced slide valves.	990 0 0	Pair.		
22/190 — 16-5-93	Fishing tackle ...	For drawing the valves of sinking pumps.	20 0 0	Set.	Warora Colliery.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount. £ s. d.	Unit.	For what railway	Remarks.
Colliery Plant.						
23/90 — 9-6-93	Heapstead, &c. ...	Head gear and pulley frames and back stays.	600 0 0	Each.	Warora Colliery.	* Steel, 24′ 9″ long × 5′ wide, bars ¾″ apart. † Single decked, to hold two tubs.
		Roofing, skylight, frames and glasses ...	1,200 0 0	„		
		Screens* and tipplers	235 0 0	„		
		Cages† and keys	223 0 0	„		
		Pulleys, 12 ft. diameter at centre of groove	136 10 0	„		
		Spare parts—				
22/190 — 16-5-93		Head gear, Pit, wrought-iron, with platform and pulleys	1,000 0 0	Set.		
27/76 — 13-10-93	Hooks ...	Detaching (King and Humble's) for use with pit head gear	21 0 0	Each.	Warora Colliery.	
22/190 — 16-5-93	Kibbles ...	For use in excavating the shaft, each to hold one ton of material	20 0 0	Each.	Warora Colliery.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
29/17, 4-12-93	Colliery Plant. Sheaves, pulley ...	3 feet diameter, with *cast-iron* pedestals, $2\frac{1}{2}$″ 4 „ „ „ „ $3\frac{1}{2}$″ 6 „ „ „ „ $4\frac{1}{2}$″	212 10 0	For 20 sheaves and 44 pedestals.	Dandot Colliery.	
26/312, 29-9-93	Spur wheels ...	Diameter of pitch circle 7′ $8\frac{5}{16}$″, with two pinions, diameter 1′ $6\frac{5}{16}$″, *cast-iron*, with helical teeth	79 10 0	Each.	Warora Colliery.	
22/190, 16-5-93	Trepans... ...	Chapman's patent, suitable for boring holes 17″ diameter.	250 0 0	Each.	Warora Colliery.	For use in pumping engines.
28/138, 9-11-93	Tubes ...	Boiler, iron, lap-welded, double drawn 9′ $10\frac{1}{2}$″ long and $2\frac{1}{4}$″ external diameter	0 6 3	Each.	Warora Colliery.	
28/201, 14-11-93		Boiler, iron, lap-welded, double drawn, 10,′ 3″ long and 2″ external diameter 12 B. W. G. thick	0 4 9	„		
	Under-frame ...	For old tub, "Mallett" type ...	1 3 0	Each.		
28/101, 4-11-93	Wagons, side tipping	Steel, with wheels and axles, pedestals, coupling links, and forgings, &c., complete, designed for a carrying capacity of 14 c. ft., equal to 9 cwt. of Dandot Coal: tare 7 cwt.	7 15 0	Each.	Dandot Colliery.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
		Spare parts of—	£ s. d.			
28/101, 4-11-93	Colliery Plant. Wagons, side tipping	Coupling links, complete with bolts, loose collar, and pin	0 4 0	Each.	Dandot Colliery.	
		Oil boxes, cast steel	0 2 6	„		
		Pedestals (collar) for wheels complete, with bolts	0 4 0	„		
		Shackles for 3″ wire rope, complete with chains, links, and hooks ...	1 5 0	„		
23/90, 9-6-93	Weighing machines	"Hodgson and Stead's" patent self-indicating for weighing coal tubs on pit bank. Platforms, 42″ × 24″, to weigh up to 17 cwt.	42 0 0	Each.	Warora Colliery.	
22/190, 16-5-93	Winches ...	Crab, double-geared ,6 tons, hand power, with capstan, pullies, &c., complete for lifting the pump work.	20 0 0	Each.	Warora Colliery.	
26/231, 20-9-93	Wheels and axles ...	For mining wagons	0 8 0	Pair.	Warora Colliery.	
		10″ diameter, for wagons, side tipping ...	0 18 6	„	Dandot Colliery.	
28/101, 4-11-93		9″ „ with plain axles for side-tipping wagons	0 15 0	„		

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
				£ s. d.			
28/101	4-11-93	Colliery Plant—(*contd.*) Wheels	10″ diameter with shouldered axles ...	0 2 6	Pair.	Dandot Colliery.	
19/4	1-2-93	Forges ...	Portable, rectangular, with hearth plates 20″ × 14″, each fitted with a Root's blower	6 15 0	Each.	Bareilly-Rampur-Moradabad.	
20/428	25-3-93		Portable, circular, 22″, diameter with protected bellows	6 0 0	,,	Eastern Bengal.	
25/457	31-8-93	Glasses, gauge ...	Plain :— 12″ × ½″ external diameter ...	0 2 3	Doz.	Warora Colliery.	
			14″ × ¾″ ,, ,, ...	0 4 4½	,,		
18/387	31-1-93	Jacks	Hydraulic, with safety valves :— 150 tons	35 0 0	Each.	Bareilly-Rampur-Moradabad.	
			50 ,, ...	14 15 0	,,		

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
				£ s. d.			
27/38	5-10-93	Jacks ...	Screw, bottle, with ratchet, steel bodies and screws, gunmetal nuts and ratchet lever, 5 tons.	1 5 0	Each.	Mu Valley.	
18/66	7-1-93		Screw, traversing, with ratchets and levers, steel cylinders and screws, and gunmetal nuts, 20 tons.	7 15 0	,,	Frontier Railway Reserve.	
			Screw, traversing, with ratchets and levers, steel cylinders and screws, and gun metal nuts, 5 tons.	3 13 0	,,	Eastern Bengal.	
18/67	7-1-93		Screw, traversing, Haley's pattern, with ratchets, &c., complete, 10 tons ...	6 15 0	,,	Oudh and Rohilkhand.	
18/6	3-1-93	Jim Crows ...	With levers 6′ 6″ long by 1½″ diameter, 24″ span, diameter of screw 2¾″, for 75 lb. rails, each with two bars.	3 15 6	Each.	Oudh and Rohilkhand.	
27/15	2-10-93		Ditto ditto ditto ...	*3 10 0	,,		* With one bar only.
28/99	3-11-93		With levers, 7 feet long × 1⅝″ diameter for rails, steel, flat-footed, 100 lbs. per yard.	4 15 0	,,	Mushkaf-Bolan.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
28/101 — 4-11-93	Colliery Plant—(*concld.*) — Wheels	10″ diameter with shouldered axles ...	0 2 6	Pair.	Dandot Colliery.	
19/4 — 1-2-93	Forges ...	Portable, rectangular, with hearth plates 20″ × 14″, each fitted with a Root's blower	6 15 0	Each.	Bareilly-Rampur-Moradabad.	
20/428 — 25-3-93		Portable, circular, 22″, diameter with protected bellows	6 0 0	,,	Eastern Bengal.	
25/457 — 31-8-93	Glasses, gauge ...	Plain :—				
		12″ × ½″ external diameter ...	0 2 3	Doz.	Warora Colliery.	
		14″ × ¾″ ,, ,, ...	0 4 4½	,,		
18/387 — 31-1-93	Jacks	Hydraulic, with safety valves :—				
		150 tons	35 0 0	Each.	Bareilly-Rampur-Moradabad.	
		50 ,, ...	14 15 0	,,		

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
27/38 — 5-10-93	Jacks ...	Screw, bottle, with ratchet, steel bodies and screws, gunmetal nuts and ratchet lever, 5 tons.	1 5 0	Each.	Mu Valley.	
18/66 — 7-1-93		Screw, traversing, with ratchets and levers, steel cylinders and screws, and gunmetal nuts, 20 tons.	7 15 0	,,	Frontier Railway Reserve.	
		Screw, traversing, with ratchets and levers, steel cylinders and screws, and gun metal nuts, 5 tons.	3 13 0	,,	Eastern Bengal.	
18/67 — 7-1-93		Screw, traversing, Haley's pattern, with ratchets, &c., complete, 10 tons ...	6 15 0	,,	Oudh and Rohilkhand.	
18/6 — 3-1-93	Jim Crows ...	With levers 6′ 6″ long by 1½″ diameter, 24″ span, diameter of screw 2¾″, for 75 lb. rails, each with two bars.	3 15 6	Each.	Oudh and Rohilkhand.	
27/15 — 2-10-93		Ditto ditto ditto ...	*3 10 0	,,		* With one bar only.
28/99 — 3-11-93		With levers, 7 feet long × 1⅝″ diameter for rails, steel, flat-footed, 100 lbs. per yard.	4 15 0	,,	Mushkaf-Bolan.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
28/309 28-11-93	Machine, circular, sawing	Suitable for cutting steel rails (whilst cold), of the Vignole's section weighing 100 lbs. per yard.	£ 41 s. 10 d. 0	Each.	Mushkaf-Bolan.	
		Spare saws for cutting steel rails (whilst cold), of the Vignole's section weighing 100 lbs. per yard.	1 15 0	"		
29/30 5-12-93	Presses, rail-straightening	Suitable for steel rails of the Vignole's section weighing 100 lbs. per yard.	18 5 0	Each.	Mushkaf-Bolan.	
18/388 31-1-93		Suitable for bending or straightening steel rails of the Vignole's section, weighing 75 lbs. per yard.	21 7 6	"	Bareilly-Rampur Moradabad.	
20/213 13-3-93		Suitable for bending and straightening steel rails of the Vignole's section weighing 50 lbs. per yard.	21 7 6	"	Burma.	
22/88 10-5-93	Pumps.	Double cylinder, hand power, with $3\frac{1}{2}$ inch barrels and 2 fly wheels.	28 18 9	Each.	Oudh and Rohilkhand.	
		Each set of pumps to deliver 1000 gallons of water per hour, 50 feet high at a speed of 30 strokes per minute.	.....			

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
18/3 3-1-93	Ramps.	Single (Stroudley type), each set consisting of two right and two left hand ramps, suitable for re-railing locomotive engines, on rails of Vignole's section weighing 75 lbs. per yard.	£ 4 s. 15 d. 4	Set.	Frontier Railway Reserve.	Estimated weight per ramp 89 lbs.
26/110 8-9-93...	Rings, India rubber ...	Red, for gauge glasses, internal diameter of rings $\frac{1}{2}$", external diameter 1".	0 2 3	Per cent.	Warora Colliery.	
		Red, round cord, $\frac{5}{8}$", for bonnet joints, $3\frac{1}{4}$" inside diameter.	0 7 0	Doz.		
		Red, round cord, $\frac{5}{8}$", for bonnet joints, $2\frac{3}{4}$" inside diameter.	0 5 0	"		
20/195 10-3-93	Ropes wire.	Steel, galvanized, 500 feet long, 1" diameter with eyes or thimbles served in each end, large enough to admit chain easily, for use on winding engines.	1 15 0	Cwt.	Burma ...	Weight of rope=5 cwt. 3 qr. 23 lbs.
		Particulars and tests of 1" steel wire rope.				The same description of rope has also been supplied under contract 21—258, dated 26th April 1894, for the same railway.
		Circumference of rope in inches 3·14				
		No. of strands 6				
		No. of wires in each strand ... 19				
		Diameter of each wire in inches ·065"				
		Breaking strain of each wire in lbs. 600				

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*concld.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Fees on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
20/195 10-3-93	Ropes wire—(concld.)	*Particulars and tests of 1" steel wire rope—(concld).*				
		No. of twists each wire will stand without breaking in a length of 6 inches 20				
		Description of core in strand ... *Wire.*				
		Description of core in rope ... *Hemp.*				
		No. of twists per foot of strand ... 3				
		No. of twists per foot of finished rope $1\frac{3}{4}$				
		Breaking strain of each strand in lbs. 9,720				
		Weight per fathom of rope in lbs. ... 8				
		Diameter of drum round which the rope will safely work. ... *4 feet*				
18/138 13-1-93	Trollies, light ...	Wheels for—				
25/139 5-8-93		Wheels and axles, steel, 2 feet diameter for—	1 13 4	Each.	Eastern Bengal.	
			2 14 0	Pair.	Oudh and Rohilkhand.	
20/396 22-3-93	Trollies, platelayers ...	Wheels and axles with inside journals for—	1 14 6	Pair.	Burma.	
27/143 19-10-93		Wheels and axles 2 feet diameter for—	2 16 3	,,	Mu Valley.	
		Gun metal bearings for above	0 5 3	Each		

G. C. Press, Simla—No. 108 P. W. D.—11-9-94.—946.

The Secretaries to the Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, and the Punjab, Public Works Department.
The Secretaries to the Chief Commissioners of the Central Provinces, Burma, 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, Central Division and Assam.

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.

W. S. S. BISSET, Lieut.-Colonel, R.E.,
Offg. Director General of Railways

To

THE

G. C. Press, Simla.—No. 108 P. W. D.—11-9-94.—946.

[*General Distribution.*]

Circular No. 7.

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

To

THE MANAGER, NORTH WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE MANAGER, EASTERN BENGAL STATE RAILWAY.
THE MANAGER, BURMA STATE RAILWAY.
THE MANAGER, EAST COAST RAILWAY.
THE ENGINEER-IN-CHIEF, MU VALLEY STATE RAILWAY.
THE ENGINEER-IN-CHIEF, MUSHKAF-BOLAN STATE RAILWAY.
THE ENGINEER-IN-CHIEF, BINA-GUNA RAILWAY.
THE ENGINEER-IN-CHIEF, BHOPAL-UJAIN RAILWAY.
THE ENGINEER-IN-CHIEF, CHITTORE-ODEYPORE RAILWAY.
THE ENGINEER-IN-CHIEF, CUTTACK-MIDNAPUR-CALCUTTA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, KALKA-SIMLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MANDALAY-KUNLON RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, DELHI-MINCHINABAD RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, CHITTAGONG-AKYAB-MINHLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, UMARKOT PACHPADRA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, SAUGOR KATNI RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MADRAS BEZWADA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, N. W. RAILWAY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

60.S.C
C.W.7352/5.E
15 Copies with 6-15
Current Section
8-10-94

Rate List, Class B.—"Engineers' Plant" (Excluding Petty Tools), for 1893.

Simla, the 6th September 1894.

SIR,

I have the honour to forward, for information and guidance, a printed statement showing the actual English rates, *free on board* in England, for Class B Stores, "Engineers' Plant" (excluding Petty Tools), contracted for by the Stores Department of the India Office during 1893.

2. A table giving the average rates of sea freight for Class B Stores imported from England to the several ports in India for State Railways during 1893, is prefixed to the Rate List.

3. In order to arrive at the total cost of class B stores 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.

I have the honour to be,

SIR,

Your most obedient Servant,

W. S. S. BISSET, Lieut.-Colonel, R.E.,
Offg. Director General of Railways.

Documents accompanying.

1. Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.
2. Rate List, Class B.—"Engineers' Plant" (excluding petty tools), for 1893.

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

[*General Distribution.*]

Circular No. 7.

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

To

THE MANAGER, NORTH WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE MANAGER, EASTERN BENGAL STATE RAILWAY.
THE MANAGER, BURMA STATE RAILWAY.
THE MANAGER, EAST COAST RAILWAY.
THE ENGINEER-IN-CHIEF, MU VALLEY STATE RAILWAY.
THE ENGINEER-IN-CHIEF, MUSHKAF-BOLAN STATE RAILWAY.
THE ENGINEER-IN-CHIEF, BINA-GUNA RAILWAY.
THE ENGINEER-IN-CHIEF, BHOPAL-UJAIN RAILWAY.
THE ENGINEER-IN-CHIEF, CHITTORE-ODEYPORE RAILWAY.
THE ENGINEER-IN-CHIEF, CUTTACK-MIDNAPUR-CALCUTTA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, KALKA-SIMLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MANDALAY-KUNLON RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, DELHI-MINCHINABAD RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, CHITTAGONG-AKYAB-MINHLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, UMARKOT PACHPADRA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, SAUGOR KATNI RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MADRAS BEZWADA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, N. W. RAILWAY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List, Class B.—"Engineers' Plant" (Excluding Petty Tools), for 1893.

Simla, the 6th September 1894.

SIR,

I have the honour to forward, for information and guidance, a printed statement showing the actual English rates, *free on board* in England, for Class B Stores, "Engineers' Plant" (excluding Petty Tools), contracted for by the Stores Department of the India Office during 1893.

2. A table giving the average rates of sea freight for Class B Stores imported from England to the several ports in India for State Railways during 1893, is prefixed to the Rate List.

3. In order to arrive at the total cost of class B stores 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.

I have the honour to be,

SIR,

Your most obedient Servant,

W. S. S. BISSET, Lieut.-Colonel, R.E.,
Offg. Director General of Railways.

Documents accompanying.

1. Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.
2. Rate List, Class B.—"Engineers' Plant" (excluding petty tools), for 1893.

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

Enclosure to Director-General of Railways' Circular No. 7 of 1894.

RATE LIST.

CLASS B.

ENGINEERS' PLANT.

(Excluding Petty Tools.)

FOR 1893.

G. C. Press, Simla.—No. 108 P. W. D.—12-9-94.—946.

Enclosure to Director-General of Railways' Circular No. 7 of 1894.

RATE LIST.

CLASS B.

ENGINEERS' PLANT.

(Excluding Petty Tools.)

FOR 1893.

Enclosure to Director-General of Railways' Circular No. 7 of 1894.

RATE LIST.

CLASS B.

ENGINEERS' PLANT.

(Excluding Petty Tools.)

FOR 1893.

Enclosure to Director-General of Railways' Circular No. 7, dated the 6th September 1894.

Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.

Class of Stores.	Kurrachee.	Bombay.	Coconada or Vizagapatam.	Calcutta.	Rangoon.	Remarks.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	
Class B.—"Engineers' Plant" (excluding Petty Tools).	14 0	10 9	15 6	*21 6	24 9	* 50*s.* for stationary engine.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS).

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
23/253 — 20-6-93	Barrows, platform ...	Wheels, *cast iron*, with rubber tyres, 11″ diameter complete for:—	0 15 6	Each.	North-Western.	
		Tyres, spare, India rubber, 11″ diameter with *wrought iron* rings bored, drilled to template and tapped, complete, for:—	0 12 0	,,		
27/73 — 12-10-93	Blocks ...	Differential, pulley (Weston's patent), with chain complete—			Mu Valley.	
		To lift 10 cwts.	1 4 4	Each.		
		2 tons	3 2 3	,,		
		5 ,, ...	7 7 0	,,		
		10 ,, ...	14 10 0	,,		
18/65 — 17-1-93		Iron galvanized—			Frontier Railway Reserve.	* Each set consists of a single, double, and treble block.
		Single and treble sheave for 4½″ rope	5 13 9	Set.		
		Sets* for 4½″ rope (3 blocks to a set)	8 7 0	,,		
		,, * ,, 6″ ,, ,, ,,	20 14 0	,,		
		Snatch ,, 4½″ ,, ...	2 8 0	Each.		
		,, ,, 6″ ,, ...	5 1 0	,,		

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
22/307 — 26-5-93	Colliery Plant. Boilers	(Lancashire) 30 feet long and 7 feet diameter with all fittings complete. Working pressure 60 lbs. per square inch.	325 0 0	Each.	Warora Colliery ...	Approximate weight, 17 tons.
22/190 — 16-5-93	Engines, Steam ...	Crab, 20 tons, with two drums each, for two wire ropes.	760 0 0	Each.	Warora Colliery.	Approximate weight, 30 tons.
		Pumping, horizontal, compound, differential, surface-condensing, complete.	4,170 0 0	„		Approximate weight, 127 tons.
22/270 — 20-5-93		Winding, fixed, coupled, horizontal, non-condensing, stationary, with duplicate parts, &c., &c., and fitted with balanced slide valves.	990 0 0	Pair.		
22/190 — 16-5-93	Fishing tackle ...	For drawing the valves of sinking pumps.	20 0 0	Set.	Warora Colliery.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway	Remarks.
			£ s. d.			
23/90 — 9-6-93	Colliery Plant. Heapstead, &c. ...	Head gear and pulley frames and back stays.	600 0 0	Each.	Warora Colliery.	* Steel, 24′ 9″ long × 5′ wide, bars ¾″ apart. † Single decked, to hold two tubs.
		Roofing, skylight, frames and glasses ...	1,200 0 0	„		
		Screens* and tipplers	235 0 0	„		
		Cages† and keys	223 0 0	„		
		Pulleys, 12 ft. diameter at centre of groove	136 10 0	„		
		Spare parts—				
22/190 — 16-5-93		Head gear, Pit, wrought-iron, with platform and pulleys	1,000 0 0	Set.		
27/76 — 13-10-93	Hooks ...	Detaching (King and Humble's) for use with pit head gear	21 0 0	Each.	Warora Colliery.	
22/190 — 16-5-93	Kibbles ...	For use in excavating the shaft, each to hold one ton of material	20 0 0	Each.	Warora Colliery.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
22/190 16-5-93	Pulleys and Brackets	For Pit head gear. Pullies to be suited for wire rope, 4″ circumference ...	11 12 0	Each.	Warora Colliery.	
22/307 26-5-93	Pumps, feed ...	"Worthington" Horizontal, duplex type, capable of delivering 1,200 gallons each per hour, and suited for a working pressure of 60 lbs. per square inch, and having 4½″ diameter, steam cylinders, 2 double acting water-plungers, 2¾″ diameter, all having a uniform stroke of 4″ ...	37 10 0	Each.	Warora Colliery.	
	Pumps, plunger ...	24 inches diameter and 10 feet stroke, for sinking pit and permanent use to drain mine	975 0 0	Each.	Warora Colliery.	
22/190 16-5-93	Pumps, sand ...	Four buckets. Lifts consisting of 4 working barrels, each 17″ diameter, by 10-foot stroke four buckets with knock off joints, four suction valves and seats, with all necessary bolts and nuts, and jointing material. Each pump to be suitable for sinking to a depth of 250 feet	83 6 8	Each.	Warora Colliery.	
	Pumps, sinking ...	Barrels, 17 inches diameter and 10 feet stroke, suited for sinking 250 feet and for bore holes 50 feet deep.	1,115 0 0	Each.	Warora Colliery.	

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
29/17 4-12-93	Rollers ...	Horizontal, 11″ long, 5″ diameter at centre, cast steel, complete, with pedestals.	0 16 0	Each.	Dandot Colliery.	
22/190 16-5-93	Ropes ...	*Hemp, tarred, flat, 250 feet long, suitable for working the trepans ...*	50 0 0	Each.	Warora Colliery.	
		Wire, steel, 4″ circumference, each pair to be suitable for hanging the staging in a pit, 14 feet diameter and 900 feet deep	50 0 0			
23/90 9-6-93		Wire, steel, winding, 400 yards long, 3½″ circumference, suitable for raising coal from a pit 900 feet deep	49 0 0			
		Wire, steel, conductor, 325 yards long, to consist of 7 strands, ⅜″ diameter ...	32 17 6			

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
29/17, 4-12-93	Colliery Plant. Sheaves, pulley ...	3 feet diameter, with *cast-iron* pedestals, 2½″	212 10 0	For 20 sheaves and 44 pedestals.	Dandot Colliery.	For use in pumping engines.
		4 ,, ,, ,, ,, 3½″				
		6 ,, ,, ,, ,, 4½″				
26/312, 29-9-93	Spur wheels ...	Diameter of pitch circle 7′ 8 5/16″, with two pinions, diameter 1′ 6 5/16″, *cast-iron*, with helical teeth	79 10 0	Each.	Warora Colliery.	
22/190, 16-5-93	Trepans... ...	Chapman's patent, suitable for boring holes 17″ diameter.	250 0 0	Each.	Warora Colliery.	
28/138, 9-11-93	Tubes ...	Boiler, iron, lap-welded, double drawn 9′ 10½″ long and 2½″ external diameter	0 6 3	Each.		
		Boiler, iron, lap-welded, double drawn, 10,′ 3″ long and 2″ external diameter 12 B. W. G. thick	0 4 9	,,		
28/201, 14-11-93	Under-frame ...	For old tub, "Mallett" type ...	1 3 0	Each.		
28/101, 4-11-93	Wagons, side-tipping	Steel, with wheels and axles, pedestals, coupling links, and forgings, &c., complete, designed for a carrying capacity of 14 c. ft., equal to 9 cwt. of Dandot Coal: tare 7 cwt.	7 15 0	Each.	Dandot Colliery.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
28/101, 4-11-93	Colliery Plant. Wagons, side tipping	Spare parts of— Coupling links, complete with bolts, loose collar, and pin	0 4 0	Each.	Dandot Colliery.	
		Oil boxes, cast steel	0 2 6	,,		
		Pedestals (collar) for wheels complete, with bolts	0 4 0	,,		
		Shackles for 3″ wire rope, complete with chains, links, and hooks ...	1 5 0	,,		
23/90, 9-6-93	Weighing machines	"Hodgson and Stead's" patent self-indicating for weighing coal tubs on pit bank. Platforms, 42″ × 24″, to weigh up to 17 cwt.	42 0 0	Each.	Warora Colliery.	
22/190, 16-5-93	Winches ...	Crab, double-geared, 6 tons, hand power, with capstan, pullies, &c., complete for lifting the pump work.	20 0 0	Each.	Warora Colliery.	
26/231, 20-9-93	Wheels and axles ...	For mining wagons	0 8 0	Pair.	Warora Colliery.	
28/101, 4-11-93		10″ diameter, for wagons, side-tipping ...	0 18 6	,,	Dandot Colliery.	
		9″ ,, with plain axles for side-tipping wagons	0 15 0	,,		

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
				£ s. d.			
28/101	4-11-93	Colliery Plant—(*contd.*) Wheels	10″ diameter with shouldered axles ...	0 2 6	Pair.	Dandot Colliery.	
19/4	1-2-93	Forges ...	Portable, rectangular, with hearth plates 20″ × 14″, each fitted with a Root's blower	6 15 0	Each.	Bareilly-Rampur-Moradabad.	
20/428	25-3-93		Portable, circular, 22″, diameter with protected bellows	6 0 0	,,	Eastern Bengal.	
25/457	31-8-93	Glasses, gauge ...	Plain :—				
			12″ × ½″ external diameter ...	0 2 3	Doz.	Warora Colliery.	
			14″ × ⅝″ ,, ,, ...	0 4 4½	,,		
18/387	31-1-93	Jacks	Hydraulic, with safety valves :—				
			150 tons	35 0 0	Each.	Bareilly-Rampur-Moradabad.	
			50 ,, ...	14 15 0	,,		

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
				£ s. d.			
27/38	5-10-93	Jacks ...	Screw, bottle, with ratchet, steel bodies and screws, gunmetal nuts and ratchet lever, 5 tons.	1 5 0	Each.	Mu Valley.	
18/66	7-1-93		Screw, traversing, with ratchets and levers, steel cylinders and screws, and gunmetal nuts, 20 tons.	7 15 0	,,	Frontier Railway Reserve.	
			Screw, traversing, with ratchets and levers, steel cylinders and screws, and gun metal nuts, 5 tons.	3 13 0	,,	Eastern Bengal.	
18/67	7-1-93		Screw, traversing, Haley's pattern, with ratchets, &c., complete, 10 tons ...	6 15 0	,,	Oudh and Rohilkhand.	
18/6	3-1-93	Jim Crows ...	With levers 6′ 6″ long by 1½″ diameter, 24″ span, diameter of screw 2¾″, for 75 lb. rails, each with two bars.	3 15 6	Each.	Oudh and Rohilkhand.	
27/15	2-10-93		Ditto ditto ditto ...	*3 10 0	,,		* With one bar only.
28/99	3-11-93		With levers, 7 feet long × 1⅝″ diameter for rails, steel, flat-footed, 100 lbs. per yard.	4 15 0	,,	Mushkaf-Bolan.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
28/309 28-11-93	Machine, circular, sawing	Suitable for cutting steel rails (whilst cold), of the Vignole's section weighing 100 lbs. per yard.	41 10 0	Each.	Mushkaf-Bolan.	
		Spare saws for cutting steel rails (whilst cold), of the Vignole's section weighing 100 lbs. per yard.	1 15 0	,,		
29/30 5-12-93	Presses, rail-straightening	Suitable for steel rails of the Vignole's section weighing 100 lbs. per yard.	18 5 0	Each.	Mushkaf-Bolan.	
18/388 31-1-93		Suitable for bending or straightening steel rails of the Vignole's section, weighing 75 lbs. per yard.	21 7 6	,,	Bareilly-Rampur Moradabad.	
20/213 13-3-93		Suitable for bending and straightening steel rails of the Vignole's section weighing 50 lbs. per yard.	21 7 6	,,	Burma.	
22/88 10-5-93	Pumps.	Double cylinder, hand power, with $3\frac{1}{2}$ inch barrels and 2 fly wheels.	28 18 9	Each.	Oudh and Rohilkhand.	
		Each set of pumps to deliver 1000 gallons of water per hour, 50 feet high at a speed of 30 strokes per minute.	.....			

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
18/3 3-1-93	Ramps.	Single (Stroudley type), each set consisting of two right and two left hand ramps, suitable for re-railing locomotive engines, on rails of Vignole's section weighing 75 lbs. per yard.	4 15 4	Set.	Frontier Railway Reserve.	Estimated weight per ramp 89 lbs.
26/110 8-9-93...	Rings, India rubber ...	Red, for gauge glasses, internal diameter of rings $\frac{1}{2}$", external diameter 1".	0 2 3	Per cent.	Warora Colliery.	
		Red, round cord, $\frac{5}{8}$", for bonnet joints, $3\frac{1}{4}$" inside diameter.	0 7 0	Doz.		
		Red, round cord, $\frac{5}{8}$", for bonnet joints, $2\frac{3}{4}$" inside diameter.	0 5 0	,,		
20/195 10-3-93	Ropes wire.	Steel, galvanized, 500 feet long, 1" diameter with eyes or thimbles served in each end, large enough to admit chain easily, for use on winding engines.	1 15 0	Cwt.	Burma ...	Weight of rope=5 cwt. 3 qr. 23 lbs.
		Particulars and tests of 1" steel wire rope.				The same description of rope has also been supplied under contract 21—258, dated 26th April 1894, for the same railway.
		Circumference of rope in inches 3·14				
		No. of strands 6				
		No. of wires in each strand ... 19				
		Diameter of each wire in inches ·065"				
		Breaking strain of each wire in lbs. 600				

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*concld.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
20/195 10-3-93	Ropes wire—(concld.)	*Particulars and tests of 1" steel wire rope—(concld).* *No. of twists each wire will stand without breaking in a length of 6 inches ... ... 20* *Description of core in strand ... Wire.* *Description of core in rope ... Hemp.* *No. of twists per foot of strand ... 3* *No. of twists per foot of finished rope 1¼* *Breaking strain of each strand in lbs. ... ... 9,720* *Weight per fathom of rope in lbs. ... 8* *Diameter of drum round which the rope will safely work. ... 4 feet*	£ s. d.			
18/138 13-1-93 25/139 5-8-93	Trollies, light ...	Wheels for—				
		Wheels and axles, steel, 2 feet diameter for—	1 13 4	Each.	Eastern Bengal.	
			2 14 0	Pair.	Oudh and Rohilkhand.	
20/396 22-3-93	Trollies, platelayers ...	Wheels and axles with inside journals for—	1 14 6	Pair.	Burma.	
27/143 19-10-93		Wheels and axles 2 feet diameter for—	2 16 3	,,	Mu Valley.	
		Gun metal bearings for above	0 5 3	Each		

G. C. Press, Simla—No. 108 P. W. D.—11-9-94.—946.

The Secretaries to the Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, and the Punjab, Public Works Department.
The Secretaries to the Chief Commissioners of the Central Provinces, Burma, 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, Central Division and Assam.

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.

W. S. S. BISSET, Lieut.-Colonel, R.E.,
Offg. Director General of Railways.

To

THE

G. C. Press, Simla.—No. 108 P. W. D.—11-9-94.—946.

[*General Distribution.*]

Circular No. 7.

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

To

THE MANAGER, NORTH WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE MANAGER, EASTERN BENGAL STATE RAILWAY.
THE MANAGER, BURMA STATE RAILWAY.
THE MANAGER, EAST COAST RAILWAY.
THE ENGINEER-IN-CHIEF, MU VALLEY STATE RAILWAY.
THE ENGINEER-IN-CHIEF, MUSHKAF-BOLAN STATE RAILWAY.
THE ENGINEER-IN-CHIEF, BINA-GUNA RAILWAY.
THE ENGINEER-IN-CHIEF, BHOPAL-UJAIN RAILWAY.
THE ENGINEER-IN-CHIEF, CHITTORE-ODEYPORE RAILWAY.
THE ENGINEER-IN-CHIEF, CUTTACK-MIDNAPUR-CALCUTTA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, KALKA-SIMLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MANDALAY-KUNLON RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, DELHI-MINCHINABAD RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, CHITTAGONG-AKYAB-MINHLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, UMARKOT PACHPADRA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, SAUGOR KATNI RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MADRAS BEZWADA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, N. W. RAILWAY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List, Class B.—" Engineers' Plant " (Excluding Petty Tools), for 1893.

Simla, the 6th September 1894.

SIR,

I have the honour to forward, for information and guidance, a printed statement showing the actual English rates, *free on board* in England, for Class B Stores, " Engineers' Plant " (excluding Petty Tools), contracted for by the Stores Department of the India Office during 1893.

2. A table giving the average rates of sea freight for Class B Stores imported from England to the several ports in India for State Railways during 1893, is prefixed to the Rate List.

3. In order to arrive at the total cost of class B stores 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.

I have the honour to be,

SIR,

Your most obedient Servant,

W. S. S. BISSET, Lieut.-Colonel, R.E.,

Offg. Director General of Railways.

Documents accompanying.

1. Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.
2. Rate List, Class B.—" Engineers' Plant " (excluding petty tools), for 1893.

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

Enclosure to Director-General of Railways' Circular No. 7 of 1894.

2817

RATE LIST.

CLASS B.

ENGINEERS' PLANT.

(Excluding Petty Tools.)

FOR 1893.

G. C. Press, Simla.—No. 103 P. W. D.—12-9-94.—946.

Enclosure to Director-General of Railways' Circular No. 7 of 1894.

RATE LIST.

CLASS B.

ENGINEERS' PLANT.

(Excluding Petty Tools.)

FOR 1893.

Enclosure to Director-General of Railways' Circular No. 7, dated the 6th September 1894.

Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.

Class of Stores.	Kurrachee.	Bombay.	Coconada or Vizagapatam.	Calcutta.	Rangoon.	Remarks.
	s. d.	s. d.	s. d.	s. d.	s. d.	
Class B.—"Engineers' Plant" (excluding Petty Tools).	14 0	10 9	15 6	*21 6	24 9	* 50s. for stationary engine.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS).

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Rate—Free on Board. Unit.	For what railway.	Remarks.
			£ s. d.			
23/253 — 20-6-93	Barrows, platform ...	Wheels, *cast iron*, with rubber tyres, 11″ diameter complete for :—	0 15 6	Each.	North-Western.	
		Tyres, spare, India rubber, 11″ diameter with *wrought iron* rings bored, drilled to template and tapped, complete, for :—	0 12 0	,,		
27/73 — 12-10-93	Blocks ...	Differential, pulley (Weston's patent), with chain complete—			Mu Valley.	
		To *lift* 10 cwts.	1 4 4	Each.		
		2 tons	3 2 3	,,		
		5 ,, ...	7 7 0	,,		
		10 ,, ...	14 10 0	,,		
18/65 — 17-1-93		Iron galvanized—			Frontier Railway Reserve.	* Each set consists of a single, double, and treble block.
		Single and treble sheave for $4\frac{1}{2}$″ rope	5 13 9	Set.		
		Sets* for $4\frac{1}{2}$″ rope (3 blocks to a set)	8 7 0	,,		
		,, * ,, 6″ ,, ,, ,,	20 14 0	,,		
		Snatch ,, $4\frac{1}{2}$″ ,, ...	2 8 0	Each.		
		,, ,, 6″ ,, ...	5 1 0	,,		

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
22/307 — 26-5-93	Colliery Plant. — Boilers ...	(Lancashire) 30 feet long and 7 feet diameter with all fittings complete. Working pressure 60 lbs. per square inch.	325 0 0	Each.	Warora Colliery ...	Approximate weight, 17 tons.
22/190 — 16-5-93	Engines, Steam ...	Crab, 20 tons, with two drums each, for two wire ropes.	760 0 0	Each.	Warora Colliery.	Approximate weight, 30 tons.
		Pumping, horizontal, compound, differential, surface-condensing, complete.	4,170 0 0	,,		Approximate weight, 127 tons.
22/270 — 20-5-93		Winding, fixed, coupled, horizontal, non-condensing, stationary, with duplicate parts, &c., &c., and fitted with balanced slide valves.	990 0 0	Pair.		
22/190 — 16-5-93	Fishing tackle ...	For drawing the valves of sinking pumps.	20 0 0	Set.	Warora Colliery.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway	Remarks.
			£ s. d.			
23/90 — 9-6-93	Colliery Plant. — Heapstead, &c. ...	Head gear and pulley frames and back stays.	600 0 0	Each.	Warora Colliery.	* Steel, 24′ 9″ long × 5′ wide, bars ¾″ apart. † Single decked, to hold two tubs.
		Roofing, skylight, frames and glasses ...	1,200 0 0	,,		
		Screens* and tipplers	235 0 0	,,		
		Cages† and keys	223 0 0	,,		
		Pulleys, 12 ft. diameter at centre of groove	136 10 0	,,		
22/190 — 16-5-93		*Spare parts*— Head gear, Pit, wrought-iron, with platform and pulleys	1,000 0 0	Set.		
27/76 — 13-10-93	Hooks ...	Detaching (King and Humble's) for use with pit head gear	21 0 0	Each.	Warora Colliery.	
22/190 — 16-5-93	Kibbles ...	For use in excavating the shaft, each to hold one ton of material	20 0 0	Each.	Warora Colliery.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
22/190	16-5-93	Pulleys and Brackets	For Pit head gear. Pullies to be suited for wire rope, 1″ circumference ...	£ 11 s. 12 d. 0	Each.	Warora Colliery.	
22/307	26-5-93	Pumps, feed ...	"Worthington" Horizontal, duplex type, capable of delivering 1,200 gallons each per hour, and suited for a working pressure of 60 lbs. per square inch, and having 4½″ diameter, steam cylinders, 2 double acting water-plungers, 2¾″ diameter, all having a uniform stroke of 4″ ...	37 10 0	Each.	Warora Colliery.	
		Pumps, plunger ...	24 inches diameter and 10 feet stroke, for sinking pit and permanent use to drain mine	975 0 0	Each.	Warora Colliery.	
22/190	16-5-93	Pumps, sand ...	Four buckets. Lifts consisting of 4 working barrels, each 17″ diameter, by 10-foot stroke four buckets with knock off joints, four suction valves and seats, with all necessary bolts and nuts, and jointing material. Each pump to be suitable for sinking to a depth of 250 feet	83 6 8	Each.	Warora Colliery.	
		Pumps, sinking ...	Barrels, 17 inches diameter and 10 feet stroke, suited for sinking 250 feet and for bore holes 50 feet deep.	1,115 0 0	Each.	Warora Colliery.	

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
29/17	4-12-93	Rollers ...	Horizontal, 11″ long, 5″ diameter at centre, cast steel, complete, with pedestals.	£ 0 s. 16 d. 0	Each.	Dandot Colliery.	
22/190	16-5-93	Ropes ...	*Hemp, tarred, flat, 250 feet long, suitable for working the trepans ...*	50 0 0	Each.	Warora Colliery.	
			Wire, steel, 4″ circumference, each pair to be suitable for hanging the staging in a pit, 14 feet diameter and 900 feet deep	50 0 0			
23/90	9-6-93		Wire, steel, winding, 400 yards long, 3½″ circumference, suitable for raising coal from a pit 900 feet deep	49 0 0			
			Wire, steel, conductor, 325 yards long, to consist of 7 strands, ⅜″ diameter ...	32 17 6			

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
				£ s. d.			
22/190	16-5-93	Pulleys and Brackets	For Pit head gear. Pullies to be suited for wire rope, 4″ circumference ...	11 12 0	Each.	Warora Colliery.	
22/307	26-5-93	Pumps, feed ...	"Worthington" Horizontal, duplex type, capable of delivering 1,200 gallons each per hour, and suited for a working pressure of 60 lbs. per square inch, and having 4½″ diameter, steam cylinders, 2 double acting water-plungers, 2¾″ diameter, all having a uniform stroke of 4″ ...	37 10 0	Each.	Warora Colliery.	
		Pumps, plunger ...	24 inches diameter and 10 feet stroke, for sinking pit and permanent use to drain mine	975 0 0	Each.	Warora Colliery.	
22/190	16-5-93	Pumps, sand ...	Four buckets. Lifts consisting of 4 working barrels, each 17″ diameter, by 10-foot stroke four buckets with knock off joints, four suction valves and seats, with all necessary bolts and nuts, and jointing material. Each pump to be suitable for sinking to a depth of 250 feet	83 6 8	Each.	Warora Colliery.	
		Pumps, sinking ...	Barrels, 17 inches diameter and 10 feet stroke, suited for sinking 250 feet and for bore holes 50 feet deep.	1,115 0 0	Each.	Warora Colliery.	

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
				£ s. d.			
29/17	4-12-93	Rollers ...	Horizontal, 11″ long, 5″ diameter at centre, cast steel, complete, with pedestals.	0 16 0	Each.	Dandot Colliery.	
22/190	16-5-93	Ropes ...	*Hemp, tarred, flat, 250 feet long, suitable for working the trepans* ...	50 0 0	Each.	Warora Colliery.	
			Wire, steel, 4″ circumference, each pair to be suitable for hanging the staging in a pit, 14 feet diameter and 900 feet deep	50 0 0			
23/90	9-6-93		Wire, steel, winding, 400 yards long, 3½″ circumference, suitable for raising coal from a pit 900 feet deep	49 0 0			
			Wire, steel, conductor, 325 yards long, to consist of 7 strands, ⅜″ diameter ...	32 17 6			

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
29/17, 4-12-93	Sheaves, pulley ...	3 feet diameter, with *cast-iron* pedestals, 2½″ 4 „ „ „ „ 3½″ 6 „ „ „ „ 4½″	212 10 0	For 20 sheaves and 44 pedestals.	Dandot Colliery.	
26/312, 29-9-93	Spur wheels ...	Diameter of pitch circle 7′ 8$\frac{5}{16}$″, with two pinions, diameter 1′ 6$\frac{5}{16}$″, *cast-iron*, with helical teeth	79 10 0	Each.	Warora Colliery.	For use in pumping engines.
22/190, 16-5-93	Trepans... ...	Chapman's patent, suitable for boring holes 17″ diameter.	250 0 0	Each.		
28/138, 9-11-93	Tubes ...	Boiler, iron, lap-welded, double drawn 9′ 10½″ long and 2½″ external diameter	0 6 3	Each.	Warora Colliery.	
		Boiler, iron, lap-welded, double drawn, 10,′ 3″ long and 2″ external diameter 12 B. W. G. thick	0 4 9	„		
28/201, 14-11-93	Under-frame ...	For old tub, "Mallett" type ...	1 3 0	Each.		
28/101, 4-11-93	Wagons, side-tipping	Steel, with wheels and axles, pedestals, coupling links, and forgings, &c., complete, designed for a carrying capacity of 14 c. ft., equal to 9 cwt. of Dandot Coal: tare 7 cwt.	7 15 0	Each.	Dandot Colliery.	

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
28/101, 4-11-93	Wagons, side tipping	Spare parts of— Coupling links, complete with bolts, loose collar, and pin	0 4 0	Each.	Dandot Colliery.	
		Oil boxes, cast steel	0 2 6	„		
		Pedestals (collar) for wheels complete, with bolts	0 4 0	„		
		Shackles for 3″ wire rope, complete with chains, links, and hooks ...	1 5 0	„		
23/90, 9-6-93	Weighing machines	"*Hodgson and Stead's*" patent self-indicating for weighing coal tubs on pit bank. Platforms, 42″ × 24″, to weigh up to 17 cwt.	42 0 0	Each.	Warora Colliery.	
22/190, 16-5-93	Winches ...	Crab, double-geared ,6 tons, hand power, with capstan, pullies, &c., complete for lifting the pump work.	20 0 0	Each.	Warora Colliery.	
26/231, 20-9-93	Wheels and axles ...	For mining wagons	0 8 0	Pair.	Warora Colliery.	
28/101, 4-11-93		10″ diameter, for wagons, side tipping ...	0 18 6	„	Dandot Colliery.	
		9″ „ with plain axles for side-tipping wagons	0 15 0	„		

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
28/101 — 4-11-93	Colliery Plant—(*contd.*) Wheels	10″ diameter with shouldered axles ...	0 2 6	Pair.	Dandot Colliery.	
19/4 — 1-2-93	Forges ...	Portable, rectangular, with hearth plates 20″ × 14″, each fitted with a Root's blower	6 15 0	Each.	Bareilly-Rampur-Moradabad.	
20/428 — 25-3-93		Portable, circular, 22″, diameter with protected bellows	6 0 0	,,	Eastern Bengal.	
25/457 — 31-8-93	Glasses, gauge ...	Plain :— 12″ × ½″ external diameter ...	0 2 3	Doz.	Warora Colliery.	
		14″ × ⅝″ ,, ,, ...	0 4 4½	,,		
18/387 — 31-1-93	Jacks	Hydraulic, with safety valves :— 150 tons	35 0 0	Each.	Bareilly-Rampur-Moradabad.	
		50 ,, ...	14 15 0	,,		

8

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
27/38 — 5-10-93	Jacks ...	Screw, bottle, with ratchet, steel bodies and screws, gunmetal nuts and ratchet lever, 5 tons.	1 5 0	Each.	Mu Valley.	
18/66 — 7-1-93		Screw, traversing, with ratchets and levers, steel cylinders and screws, and gunmetal nuts, 20 tons.	7 15 0	,,	Frontier Railway Reserve.	
		Screw, traversing, with ratchets and levers, steel cylinders and screws, and gun metal nuts, 5 tons.	3 13 0	,,	Eastern Bengal.	
18/67 — 7-1-93		Screw, traversing, Haley's pattern, with ratchets, &c., complete, 10 tons ...	6 15 0	,,	Oudh and Rohilkhand.	
18/6 — 3-1-93	Jim Crows ...	With levers 6′ 6″ long by 1½″ diameter, 24″ span, diameter of screw 2¾″, for 75 lb. rails, each with two bars.	3 15 6	Each.	Oudh and Rohilkhand.	
27/15 — 2-10-93		Ditto ditto ditto ...	*3 10 0	,,		* With one bar only.
28/99 — 3-11-93		With levers, 7 feet long × 1⅝″ diameter for rails, steel, flat-footed, 100 lbs. per yard.	4 15 0	,,	Mushkaf-Bolan.	

6

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
28/309 28-11-93	Machine, circular, sawing	Suitable for cutting steel rails (whilst cold), of the Vignole's section weighing 100 lbs. per yard.	£ s. d. 41 10 0	Each.	Mushkaf-Bolan.	
		Spare saws for cutting steel rails (whilst cold), of the Vignole's section weighing 100 lbs. per yard.	1 15 0	"		
29/30 5-12-93	Presses, rail-straightening	Suitable for steel rails of the Vignole's section weighing 100 lbs. per yard.	18 5 0	Each.	Mushkaf-Bolan.	
18/388 31-1-93		Suitable for bending or straightening steel rails of the Vignole's section, weighing 75 lbs. per yard.	21 7 6	"	Bareilly-Rampur Moradabad.	
20/213 13-3-93		Suitable for bending and straightening steel rails of the Vignole's section weighing 50 lbs. per yard.	21 7 6	"	Burma.	
22/88 10-5-93	Pumps.	Double cylinder, hand power, with 3½ inch barrels and 2 fly wheels.	28 18 9	Each.	Oudh and Rohilkhand.	
		Each set of pumps to deliver 1000 gallons of water per hour, 50 feet high at a speed of 30 strokes per minute.	.....			

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
18/3 3-1-93	Ramps.	Single (Stroudley type), each set consisting of two right and two left hand ramps, suitable for re-railing locomotive engines, on rails of Vignole's section weighing 75 lbs. per yard.	£ s. d. 4 15 4	Set.	Frontier Railway Reserve.	Estimated weight per ramp 89 lbs.
26/110 8-9-93...	Rings, India rubber ...	Red, for gauge glasses, internal diameter of rings ½", external diameter 1".	0 2 3	Per cent.	Warora Colliery.	
		Red, round cord, ⅝", for bonnet joints, 3¼" inside diameter.	0 7 0	Doz.		
		Red, round cord, ⅝", for bonnet joints, 2¾" inside diameter.	0 5 0	"		
20/195 10-3-93	Ropes wire.	Steel, galvanized, 500 feet long, 1" diameter with eyes or thimbles served in each end, large enough to admit chain easily, for use on winding engines.	1 15 0	Cwt.	Burma ...	Weight of rope=5 cwt. 3 qr. 23 lbs.
		Particulars and tests of 1" steel wire rope.				The same description of rope has also been supplied under contract 21—258, dated 26th April 1894, for the same railway.
		Circumference of rope in inches 3·14				
		No. of strands 6				
		No. of wires in each strand ... 19				
		Diameter of each wire in inches ·065"				
		Breaking strain of each wire in lbs. 600				

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*concld.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
20/195 10-3-93	Ropes wire—(concld.)	*Particulars and tests of 1″ steel wire rope—(concld).* *No. of twists each wire will stand without breaking in a length of 6 inches ... ... 20* *Description of core in strand ... Wire.* *Description of core in rope ... Hemp.* *No. of twists per foot of strand ... 3* *No. of twists per foot of finished rope 1¼* *Breaking strain of each strand in lbs. ... ... 9,720* *Weight per fathom of rope in lbs. ... 8* *Diameter of drum round which the rope will safely work. ... 4 feet*				
18/138 13-1-93 25/139 5-8-93	Trollies, light ...	Wheels for—	1 13 4	Each.	Eastern Bengal.	
		Wheels and axles, steel, 2 feet diameter for—	2 14 0	Pair.	Oudh and Rohilkhand.	
20/396 22-3-93	Trollies, platelayers ...	Wheels and axles with inside journals for—	1 14 6	Pair.	Burma.	
27/143 19-10-93		Wheels and axles 2 feet diameter for—	2 16 3	„	Mu Valley.	
		Gun metal bearings for above	0 5 3	Each	Mu Valley.	

G. C. Press, Simla—No. 108 P. W. D.—11-9-94.—946.

The Secretaries to the Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, and the Punjab, Public Works Department.
The Secretaries to the Chief Commissioners of the Central Provinces, Burma, 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, Central Division and Assam.

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.

W. S. S. BISSET, Lieut.-Colonel, R.E.,
Offg. Director General of Railways.

To

THE

No. 2517 W. dy 11th October 1894

Communicated to officers of the P.W. Dept. (H) C.H.B.B. DW

Ch: Engr for Irrign
Supdg. Engrs
C.A. to Govt
S. of W. P. Project
Exv. P.W. Accts

G. C. Press, Simla.—No. 108 P. W. D.—11-9-94.—946.

The Secretaries to the Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, and the Punjab, Public Works Department.
The Secretaries to the Chief Commissioners of the Central Provinces, Burma, 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, Central Division and Assam.

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.

W. S. S. BISSET, Lieut.-Colonel, R.E.,
Offg. Director General of Railways.

To

THE

No. 2517 W. dy 11th October 1894

Communicated to officers of the P.W. Dept. (H) C.H.B.B. DW

Ch: Engr for Irrign
Supdg. Engrs
C.A. to Govt
S. of W. P. Project
Exv. P.W. Accts.

G. C. Press, Simla.—No. 108 P. W. D.—11-9-94.—946.

[*General Distribution.*]

Circular No. 7.

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

To

THE MANAGER, NORTH WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE MANAGER, EASTERN BENGAL STATE RAILWAY.
THE MANAGER, BURMA STATE RAILWAY.
THE MANAGER, EAST COAST RAILWAY.
THE ENGINEER-IN-CHIEF, MU VALLEY STATE RAILWAY.
THE ENGINEER-IN-CHIEF, MUSHKAF-BOLAN STATE RAILWAY.
THE ENGINEER-IN-CHIEF, BINA-GUNA RAILWAY.
THE ENGINEER-IN-CHIEF, BHOPAL-UJAIN RAILWAY.
THE ENGINEER-IN-CHIEF, CHITTORE-ODEYPORE RAILWAY.
THE ENGINEER-IN-CHIEF, CUTTACK-MIDNAPUR-CALCUTTA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, KALKA-SIMLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MANDALAY-KUNLON RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, DELHI-MINCHINABAD RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, CHITTAGONG-AKYAB-MINHLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, UMARKOT PACHPADRA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, SAUGOR KATNI RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MADRAS BEZWADA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, N. W. RAILWAY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List, Class B.—" Engineers' Plant " (Excluding Petty Tools), for 1893.

SIR, Simla, the 6th September 1894.

I have the honour to forward, for information and guidance, a printed statement showing the actual English rates, *free on board* in England, for Class B Stores, " Engineers' Plant " (excluding Petty Tools), contracted for by the Stores Department of the India Office during 1893.

2. A table giving the average rates of sea freight for Class B Stores imported from England to the several ports in India for State Railways during 1893, is prefixed to the Rate List.

3. In order to arrive at the total cost of class B stores 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.

I have the honour to be,

SIR,

Your most obedient Servant,

W. S. S. BISSET, Lieut.-Colonel, R.E.,

Offg. Director General of Railways.

Documents accompanying.

1. Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.

2. Rate List, Class B.—" Engineers' Plant " (excluding petty tools), for 1893.

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

[*General Distribution.*]

Circular No. 7.

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

To

THE MANAGER, NORTH WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE MANAGER, EASTERN BENGAL STATE RAILWAY.
THE MANAGER, BURMA STATE RAILWAY.
THE MANAGER, EAST COAST RAILWAY.
THE ENGINEER-IN-CHIEF, MU VALLEY STATE RAILWAY.
THE ENGINEER-IN-CHIEF, MUSHKAF-BOLAN STATE RAILWAY.
THE ENGINEER-IN-CHIEF, BINA-GUNA RAILWAY.
THE ENGINEER-IN-CHIEF, BHOPAL-UJAIN RAILWAY.
THE ENGINEER-IN-CHIEF, CHITTORE-ODEYPORE RAILWAY.
THE ENGINEER-IN-CHIEF, CUTTACK-MIDNAPUR-CALCUTTA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, KALKA-SIMLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MANDALAY-KUNLON RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, DELHI-MINCHINABAD RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, CHITTAGONG-AKYAB-MINHLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, UMARKOT PACHPADRA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, SAUGOR KATNI RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MADRAS BEZWADA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, N. W. RAILWAY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List, Class B.—" Engineers' Plant " (Excluding Petty Tools), for 1893.

SIR,

Simla, the 6th September 1894.

I have the honour to forward, for information and guidance, a printed statement showing the actual English rates, *free on board* in England, for Class B Stores, " Engineers' Plant " (excluding Petty Tools), contracted for by the Stores Department of the India Office during 1893.

2. A table giving the average rates of sea freight for Class B Stores imported from England to the several ports in India for State Railways during 1893, is prefixed to the Rate List.

3. In order to arrive at the total cost of class B stores 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.

I have the honour to be,

SIR,

Your most obedient Servant,

W. S. S. BISSET, Lieut.-Colonel, R.E.,

Offg. Director General of Railways.

Documents accompanying.

1. Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.
2. Rate List, Class B.—" Engineers' Plant " (excluding petty tools), for 1893.

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

Enclosure to Director-General of Railways' Circular No. 7 of 1894.

2617

RATE LIST.

CLASS B.

ENGINEERS' PLANT.

(Excluding Petty Tools.)

FOR 1893.

G. C. Press, Simla.—No. 108 P. W. D.—12-9-94.—946.

[*General Distribution.*]

Circular No. 7.

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

TO

THE MANAGER, NORTH WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE MANAGER, EASTERN BENGAL STATE RAILWAY.
THE MANAGER, BURMA STATE RAILWAY.
THE MANAGER, EAST COAST RAILWAY.
THE ENGINEER-IN-CHIEF, MU VALLEY STATE RAILWAY.
THE ENGINEER-IN-CHIEF, MUSHKAF-BOLAN STATE RAILWAY.
THE ENGINEER-IN-CHIEF, BINA-GUNA RAILWAY.
THE ENGINEER-IN-CHIEF, BHOPAL-UJAIN RAILWAY.
THE ENGINEER-IN-CHIEF, CHITTORE-ODEYPORE RAILWAY.
THE ENGINEER-IN-CHIEF, CUTTACK-MIDNAPUR-CALCUTTA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, KALKA-SIMLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MANDALAY-KUNLON RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, DELHI-MINCHINABAD RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, CHITTAGONG-AKYAB-MINHLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, UMARKOT PACHPADRA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, SAUGOR KATNI RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MADRAS BEZWADA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, N. W. RAILWAY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List, Class B.—"Engineers' Plant" (Excluding Petty Tools), for 1893.

SIR, Simla, the 6th September 1894.

I have the honour to forward, for information and guidance, a printed statement showing the actual English rates, *free on board* in England, for Class B Stores, "Engineers' Plant" (excluding Petty Tools), contracted for by the Stores Department of the India Office during 1893.

2. A table giving the average rates of sea freight for Class B Stores imported from England to the several ports in India for State Railways during 1893, is prefixed to the Rate List.

3. In order to arrive at the total cost of class B stores 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.

I have the honour to be,

SIR,

Your most obedient Servant,

W. S. S. BISSET, Lieut.-Colonel, R.E.,

Offg. Director General of Railways.

Documents accompanying.

1. Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.
2. Rate List, Class B.—"Engineers' Plant" (excluding petty tools), for 1893.

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

Enclosure to Director-General of Railways' Circular No. 7 of 1894.

2817

RATE LIST.

CLASS B.

ENGINEERS' PLANT.

(Excluding Petty Tools.)

FOR 1893.

G. C. Press, Simla.—No. 108 P. W. D.—12-9-94.—946.

[*General Distribution.*]

Circular No. 7.

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

To

THE MANAGER, NORTH WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE MANAGER, EASTERN BENGAL STATE RAILWAY.
THE MANAGER, BURMA STATE RAILWAY.
THE MANAGER, EAST COAST RAILWAY.
THE ENGINEER-IN-CHIEF, MU VALLEY STATE RAILWAY.
THE ENGINEER-IN-CHIEF, MUSHKAF-BOLAN STATE RAILWAY.
THE ENGINEER-IN-CHIEF, BINA-GUNA RAILWAY.
THE ENGINEER-IN-CHIEF, BHOPAL-UJAIN RAILWAY.
THE ENGINEER-IN-CHIEF, CHITTORE-ODEYPORE RAILWAY.
THE ENGINEER-IN-CHIEF, CUTTACK-MIDNAPUR-CALCUTTA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, KALKA-SIMLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MANDALAY-KUNLON RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, DELHI-MINCHINABAD RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, CHITTAGONG-AKYAB-MINHLA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, UMARKOT PACHPADRA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, SAUGOR KATNI RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MADRAS BEZWADA RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, N. W. RAILWAY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List, Class B.—"Engineers' Plant" (Excluding Petty Tools), for 1893.

SIR, Simla, the 6th September 1894.

I have the honour to forward, for information and guidance, a printed statement showing the actual English rates, *free on board* in England, for Class B Stores, "Engineers' Plant" (excluding Petty Tools), contracted for by the Stores Department of the India Office during 1893.

2. A table giving the average rates of sea freight for Class B Stores imported from England to the several ports in India for State Railways during 1893, is prefixed to the Rate List.

3. In order to arrive at the total cost of class B stores 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.

I have the honour to be,

SIR,

Your most obedient Servant,

W. S. S. BISSET, Lieut.-Colonel, R.E.,

Offg. Director General of Railways.

Documents accompanying.

1. Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.
2. Rate List, Class B.—"Engineers' Plant" (excluding petty tools), for 1893.

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

Enclosure to Director-General of Railways' Circular No. 7 of 1894.

2817

RATE LIST.

CLASS B.

ENGINEERS' PLANT.

(Excluding Petty Tools.)

FOR 1893.

G. C. Press, Simla.—No. 108 P. W. D.—12-9-94.—946.

Enclosure to Director-General of Railways' Circular No. 7 of 1894.

RATE LIST.

CLASS B.

ENGINEERS' PLANT.

(Excluding Petty Tools.)

FOR 1893.

Enclosure to Director-General of Railways' Circular No. 7, dated the 6th September 1894.

Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.

Class of Stores.	Kurrachee.	Bombay.	Coconada or Vizagapatam.	Calcutta.	Rangoon.	Remarks.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	
Class B.—"Engineers' Plant" (excluding Petty Tools).	14 0	10 9	15 6	*21 6	24 9	* 50*s.* for stationary engine.

Enclosure to Director-General of Railways' Circular No. 7, dated the 6th September 1894.

Statement showing the average rate per ton for entire sea freight on Class B Stores imported from England to the several ports during 1893.

Class of Stores.	Kurrachee.	Bombay.	Coconada or Vizagapatam.	Calcutta.	Rangoon.	Remarks.
	s. d.	s. d.	s. d.	s. d.	s. d.	
Class B.—"Engineers' Plant" (excluding Petty Tools).	14 0	10 9	15 6	*21 6	24 9	* 50s. for stationary engine.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS).

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
23/253 20-6-93	Barrows, platform ...	Wheels, *cast iron*, with rubber tyres, 11″ diameter complete for:—	0 15 6	Each.	North-Western.	
		Tyres, spare, India rubber, 11″ diameter, with *wrought iron* rings bored, drilled to template and tapped, complete, for:—	0 12 0	,,		
27/73 12-10-93	Blocks ...	Differential, pulley (Weston's patent), with chain complete—			Mu Valley.	
		To lift 10 cwts.	1 4 4	Each.		
		2 tons	3 2 3	,,		
		5 ,, ...	7 7 0	,,		
		10 ,, ...	14 10 0	,,		
18/65 17-1-93		Iron galvanized—			Frontier Railway Reserve.	* Each set consists of a single, double, and treble block.
		Single and treble sheave for 4½″ rope	5 13 9	Set.		
		Sets* for 4½″ rope (3 blocks to a set)	8 7 0	,,		
		,, * ,, 6″ ,, ,, ,,	20 14 0	,,		
		Snatch ,, 4½″ ,, ...	2 8 0	Each.		
		,, ,, 6″ ,, ...	5 1 0	,,		

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
				£ s. d.			
22/307	26-5-93	Colliery Plant. Boilers	(Lancashire) 30 feet long and 7 feet diameter with all fittings complete. Working pressure 60 lbs. per square inch.	325 0 0	Each.	Warora Colliery ...	Approximate weight, 17 tons.
22/190	16-5-93	Engines, Steam ...	Crab, 20 tons, with two drums each, for two wire ropes.	760 0 0	Each.	Warora Colliery.	Approximate weight, 30 tons.
			Pumping, horizontal, compound, differential, surface-condensing, complete.	4,170 0 0	„		Approximate weight, 127 tons.
22/270	20-5-93		Winding, fixed, coupled, horizontal, non-condensing, stationary, with duplicate parts, &c., &c., and fitted with balanced slide valves.	990 0 0	Pair.		
22/190	16-5-93	Fishing tackle ...	For drawing the valves of sinking pumps.	20 0 0	Set.	Warora Colliery.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway	Remarks.
				£ s. d.			
23/90	9-6-93	Colliery Plant. Heapstead, &c. ...	Head gear and pulley frames and back stays.	600 0 0	Each.	Warora Colliery.	* Steel, 24′ 9″ long × 5′ wide, bars ⅞″ apart. † Single decked, to hold two tubs.
			Roofing, skylight, frames and glasses ...	1,200 0 0	„		
			Screens* and tipplers	235 0 0	„		
			Cages† and keys	223 0 0	„		
			Pulleys, 12 ft. diameter at centre of groove	136 10 0	„		
			Spare parts—				
22/190	16-5-93		Head gear, Pit, wrought-iron, with platform and pulleys	1,000 0 0	Set.		
27/76	13-10-93	Hooks ...	Detaching (King and Humble's) for use with pit head gear	21 0 0	Each.	Warora Colliery.	
22/190	16-5-93	Kibbles ...	For use in excavating the shaft, each to hold one ton of material	20 0 0	Each.	Warora Colliery.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount. £ s. d.	Unit.	For what railway.	Remarks.
Colliery Plant.							
22/190	16-5-93	Pulleys and Brackets	For Pit head gear. Pullies to be suited for wire rope, 4″ circumference ...	11 12 0	Each.	Warora Colliery.	
22/307	26-5-93	Pumps, feed ...	"Worthington" Horizontal, duplex type, capable of delivering 1,200 gallons each per hour, and suited for a working pressure of 60 lbs. per square inch, and having 4½″ diameter, steam cylinders, 2 double acting water-plungers, 2¾″ diameter, all having a uniform stroke of 4″ ...	37 10 0	Each.	Warora Colliery.	
		Pumps, plunger ...	24 inches diameter and 10 feet stroke, for sinking pit and permanent use to drain mine	975 0 0	Each.	Warora Colliery.	
22/190	16-5-93	Pumps, sand ...	Four buckets. Lifts consisting of 4 working barrels, each 17″ diameter, by 10-foot stroke four buckets with knock off joints, four suction valves and seats, with all necessary bolts and nuts, and jointing material. Each pump to be suitable for sinking to a depth of 250 feet	83 6 8	Each.	Warora Colliery.	
		Pumps, sinking ...	Barrels, 17 inches diameter and 10 feet stroke, suited for sinking 250 feet and for bore holes 50 feet deep.	1,115 0 0	Each.	Warora Colliery.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount. £ s. d.	Unit.	For what railway.	Remarks.
Colliery Plant.							
29/17	4-12-93	Rollers ...	Horizontal, 11″ long, 5″ diameter at centre, cast steel, complete, with pedestals.	0 16 0	Each.	Dandot Colliery.	
22/190	16-5-93	Ropes ...	Hemp, tarred, flat, 250 feet long, suitable for working the trepans ...	50 0 0	Each.	Warora Colliery.	
			Wire, steel, 4″ circumference, each pair to be suitable for hanging the staging in a pit, 14 feet diameter and 900 feet deep	50 0 0			
23/20	9-6-93		Wire, steel, winding, 400 yards long, 3½″ circumference, suitable for raising coal from a pit 900 feet deep	49 0 0			
			Wire, steel, conductor, 325 yards long, to consist of 7 strands, ⅜″ diameter ...	32 17 6			

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
				£ s. d.			
22/190	16-5-93	Pulleys and Brackets	For Pit head gear. Pullies to be suited for wire rope, 4″ circumference ...	11 12 0	Each.	Warora Colliery.	
22/307	26-5-93	Pumps, feed ...	"Worthington" Horizontal, duplex type, capable of delivering 1,200 gallons each per hour, and suited for a working pressure of 60 lbs. per square inch, and having 4½″ diameter, steam cylinders, 2 double acting water-plungers, 2¾″ diameter, all having a uniform stroke of 4″ ...	37 10 0	Each.	Warora Colliery.	
		Pumps, plunger ...	24 inches diameter and 10 feet stroke, for sinking pit and permanent use to drain mine	975 0 0	Each.	Warora Colliery.	
22/190	16-5-93	Pumps, sand ...	Four buckets. Lifts consisting of 4 working barrels, each 17″ diameter, by 10-foot stroke four buckets with knock off joints, four suction valves and seats, with all necessary bolts and nuts, and jointing material. Each pump to be suitable for sinking to a depth of 250 feet	83 6 8	Each.	Warora Colliery.	
		Pumps, sinking ...	Barrels, 17 inches diameter and 10 feet stroke, suited for sinking 250 feet and for bore holes 50 feet deep.	1,115 0 0	Each.	Warora Colliery.	

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
				£ s. d.			
29/17	4-12-93	Rollers ...	Horizontal, 11″ long, 5″ diameter at centre, cast steel, complete, with pedestals.	0 16 0	Each.	Dandot Colliery.	
22/190	16-5-93	Ropes ...	Hemp, tarred, flat, 250 feet long, suitable for working the trepans ...	50 0 0	Each.	Warora Colliery.	
			Wire, steel, 4″ circumference, each pair to be suitable for hanging the staging in a pit, 14 feet diameter and 900 feet deep	50 0 0			
23/90	9-6-93		Wire, steel, winding, 400 yards long, 3½″ circumference, suitable for raising coal from a pit 900 feet deep	49 0 0			
			Wire, steel, conductor, 325 yards long, to consist of 7 strands, ⅜″ diameter ...	32 17 6			

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount. £ s. d.	Unit.	For what railway.	Remarks.
29/17	4-12-93	Sheaves, pulley ...	3 feet diameter, with *cast-iron* pedestals, $2\frac{1}{2}''$ 4 " " " " $3\frac{1}{2}''$ 6 " " " " $4\frac{1}{2}''$	212 10 0	For 20 sheaves and 44 pedestals.	Dandot Colliery.	
26/312	29-9-93	Spur wheels ...	*Diameter of pitch* circle 7′ $8\frac{5}{16}''$, with two pinions, diameter 1′ $6\frac{5}{16}''$, *cast-iron*, with helical teeth	79 10 0	Each.	Warora Colliery.	For use in pumping engines.
22/190	16-5-93	Trepans... ...	Chapman's patent, suitable for boring holes 17″ diameter.	250 0 0	Each.	Warora Colliery.	
28/138	9-11-93	Tubes ...	Boiler, iron, lap-welded, double drawn 9′ $10\frac{1}{2}''$ long and $2\frac{1}{4}''$ external diameter	0 6 3	Each.		
			Boiler, iron, lap-welded, double drawn, 10,′ 3″ long and 2″ external diameter 12 B. W. G. thick	0 4 9	"		
28/201	14-11-93	Under-frame ...	For old tub, "Mallett" type ...	1 3 0	Each.		
28/101	4-11-93	Wagons, side-tipping	Steel, with wheels and axles, pedestals, coupling links, and forgings, &c., complete, designed for a carrying capacity of 14 c. ft., equal to 9 cwt. of Dandot Coal: tare 7 cwt.	7 15 0	Each.	Dandot Colliery.	

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount. £ s. d.	Unit.	For what railway.	Remarks.
28/101	4-11-93	Wagons, side tipping	Spare parts of— Coupling links, complete with bolts, loose collar, and pin	0 4 0	Each.	Dandot Colliery.	
			Oil boxes, cast steel	0 2 6	"		
			Pedestals (collar) for wheels complete, with bolts	0 4 0	"		
			Shackles for 3″ wire rope, complete with *chains, links,* and hooks ...	1 5 0	"		
23/90	9-6-93	Weighing machines	"Hodgson and Stead's" patent self-indicating for weighing coal tubs on pit bank. Platforms, 42″ × 24″, to weigh up to 17 cwt.	42 0 0	Each.	Warora Colliery.	
22/190	16-5-93	Winches ...	Crab, double-geared ,6 tons, hand power, with capstan, pullies, &c., complete for lifting the pump work.	20 0 0	Each.	Warora Colliery.	
26/231	20-9-93	Wheels and axles ...	For mining wagons	0 8 0	Pair.	Warora Colliery.	
28/101	4-11-93		10″ diameter, for wagons, side tipping ...	0 18 6	"	Dandot Colliery.	
			9″ " with plain axles for side-tipping wagons	0 15 0	"		

Colliery Plant.

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount. £ s. d.	Unit.	For what railway.	Remarks.
28/101	4-11-93	Colliery Plant—(*contd.*) Wheels	10″ diameter with shouldered axles ...	0 2 6	Pair.	Dandot Colliery.	
19/4	1-2-93	Forges ...	Portable, rectangular, with hearth plates 20″ × 14″, each fitted with a Root's blower	6 15 0	Each.	Bareilly-Rampur-Moradabad.	
20/428	25-3-93		Portable, circular, 22″, diameter with protected bellows	6 0 0	,,	Eastern Bengal.	
25/457	31-8-93	Glasses, gauge ...	Plain :— 12″ × ¼″ external diameter ...	0 2 3	Doz.	Warora Colliery.	
			14″ × ⅜″ ,, ,, ...	0 4 4½	,,		
18/387	31-1-93	Jacks	Hydraulic, with safety valves :— 150 tons	35 0 0	Each.	Bareilly-Rampur-Moradabad.	
			50 ,, ...	14 15 0	,,		

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount. £ s. d.	Unit.	For what railway.	Remarks.
27/38	5-10-93	Jacks ...	Screw, bottle, with ratchet, steel bodies and screws, gunmetal nuts and ratchet lever, 5 tons.	1 5 0	Each.	Mu Valley.	
18/66	7-1-93		Screw, traversing, with ratchets and levers, steel cylinders and screws, and gunmetal nuts, 20 tons.	7 15 0	,,	Frontier Railway Reserve.	
			Screw, traversing, with ratchets and levers, steel cylinders and screws, and gun metal nuts, 5 tons.	3 13 0	,,	Eastern Bengal.	
18/67	7-1-93		Screw, traversing, Haley's pattern, with ratchets, &c., complete, 10 tons ...	6 15 0	,,	Oudh and Rohilkhand.	
18/6	3-1-93	Jim Crows ...	With levers 6′ 6″ long by 1½″ diameter, 24″ span, diameter of screw 2¾″, for 75 lb. rails, each with two bars.	3 15 6	Each.	Oudh and Rohilkhand.	
27/15	2-10-93		Ditto ditto ditto ...	*3 10 0	,,		* With one bar only.
28/99	3-11-93		With levers, 7 feet long × 1⅛″ diameter for rails, steel, flat-footed, 100 lbs. per yard.	4 15 0	,,	Mushkaf-Bolan.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount. £ s. d.	Unit.	For what railway.	Remarks.
28/101	4-11-93	Colliery Plant—(*contd.*) Wheels	10″ diameter with shouldered axles ...	0 2 6	Pair.	Dandot Colliery.	
19/4	1-2-93	Forges ...	Portable, rectangular, with hearth plates 20″×14″, each fitted with a Root's blower	6 15 0	Each.	Bareilly-Rampur-Moradabad.	
20/428	25-3-93		Portable, circular, 22″, diameter with protected bellows	6 0 0	,,	Eastern Bengal.	
25/457	31-8-93	Glasses, gauge ...	Plain :— 12″ × ½″ external diameter ...	0 2 3	Doz.	Warora Colliery.	
			14″ × ¾″ ,, ,, ...	0 4 4½	,,		
18/387	31-1-93	Jacks	Hydraulic, with safety valves :— 150 tons	35 0 0	Each.	Bareilly-Rampur-Moradabad.	
			50 ,, ...	14 15 0	,,		

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount. £ s. d.	Unit.	For what railway.	Remarks.
27/38	5-10-93	Jacks ...	Screw, bottle, with ratchet, steel bodies and screws, gunmetal nuts and ratchet lever, 5 tons.	1 5 0	Each.	Mu Valley.	
18/66	7-1-93		Screw, traversing, with ratchets and levers, steel cylinders and screws, and gunmetal nuts, 20 tons.	7 15 0	,,	Frontier Railway Reserve.	
			Screw, traversing, with ratchets and levers, steel cylinders and screws, and gun metal nuts, 5 tons.	3 13 0	,,	Eastern Bengal.	
18/67	7-1-93		Screw, traversing, Haley's pattern, with ratchets, &c., complete, 10 tons ...	6 15 0	,,	Oudh and Rohilkhand.	
18/6	3-1-93	Jim Crows ...	With levers 6′ 6″ long by 1½″ diameter, 24″ span, diameter of screw 2¾″, for 75 lb. rails, each with two bars.	3 15 6	Each.	Oudh and Rohilkhand.	
27/15	2-10-93		Ditto ditto ditto ...	*3 10 0	,,		* With one bar only.
28/99	3-11-93		With levers, 7 feet long × 1⅝″ diameter for rails, steel, flat-footed, 100 lbs. per yard.	4 15 0	,,	Mushkaf-Bolan.	

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

[Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
28/309	28-11-93	Machine, circular, sawing	Suitable for cutting steel rails (whilst cold), of the Vignole's section weighing 100 lbs. per yard.	£ 41 s. 10 d. 0	Each.	Mushkaf-Bolan.	
			Spare saws for cutting steel rails (whilst cold), of the Vignole's section weighing 100 lbs. per yard.	1 15 0	"		
29/30	5-12-93	Presses, rail-straightening	Suitable for steel rails of the Vignole's section weighing 100 lbs. per yard.	18 5 0	Each.	Mushkaf-Bolan.	
18/388	31-1-93		Suitable for bending or straightening steel rails of the Vignole's section, weighing 75 lbs. per yard.	21 7 6	"	Bareilly-Rampur Moradabad.	
20/213	13-3-93		Suitable for bending and straightening steel rails of the Vignole's section weighing 50 lbs. per yard.	21 7 6	"	Burma.	
22/88	10-5-93	Pumps.	Double cylinder, hand power, with 3½ inch barrels and 2 fly wheels.	23 18 9	Each.	Oudh and Rohilkhand.	
			Each set of pumps to deliver 1000 gallons of water per hour, 50 feet high at a speed of 30 strokes per minute.	.....			

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*contd.*

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
18/3	3-1-93	Ramps.	Single (Stroudley type), each set consisting of two right and two left hand ramps, suitable for re-railing locomotive engines, on rails of Vignole's section weighing 75 lbs. per yard.	£ s. d. 4 15 4	Set.	Frontier Railway Reserve.	Estimated weight per ramp 89 lbs.
26/110	8-9-93...	Rings, India rubber ...	Red, for gauge glasses, internal diameter of rings ½", external diameter 1".	0 2 3	Per cent.	Warora Colliery.	
			Red, round cord, ⅝", for bonnet joints, 3¼" inside diameter.	0 7 0	Doz.		
			Red, round cord, ⅝", for bonnet joints, 2¾" inside diameter.	0 5 0	"		
20/195	10-3-93	Ropes wire.	Steel, galvanized, 500 feet long, 1" diameter with eyes or thimbles served in each end, large enough to admit chain easily, for use on winding engines.	1 15 0	Cwt.	Burma ...	Weight of rope=5 cwt. 3 qr. 23 lbs.
			Particulars and tests of 1" steel wire rope.				The same description of rope has also been supplied under contract 21—258, dated 26th April 1894, for the same railway.
			Circumference of rope in inches 3·14				
			No. of strands 6				
			No. of wires in each strand ... 19				
			Diameter of each wire in inches .·065"				
			Breaking strain of each wire in lbs. 600				

CLASS OF STORES B.—ENGINEERS' PLANT (EXCLUDING PETTY TOOLS)—*concld.*

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
			£ s. d.			
20/195 10-3-93	Ropes wire—(concld.)	*Particulars and tests of 1" steel wire rope—(concld).*				
		No. of twists each wire will stand without breaking in a length of 6 inches 20				
		Description of core in strand ... Wire.				
		Description of core in rope ... Hemp.				
		No. of twists per foot of strand ... 3				
		No. of twists per foot of finished rope 1¾				
		Breaking strain of each strand in lbs. 9,720				
		Weight per fathom of rope in lbs. ... 8				
		Diameter of drum round which the rope will safely work. ... 4 feet				
18/133 13-1-93	Trollies, light ...	Wheels for—				
25/139 5-8-93		Wheels and axles, steel, 2 feet diameter for—	1 13 4	Each.	Eastern Bengal.	
			2 14 0	Pair.	Oudh and Rohilkhand.	
20/396 22-3-93	Trollies, platelayers ...	Wheels and axles with inside journals for—	1 14 6	Pair.	Burma.	
27/143 19-10-93		Wheels and axles 2 feet diameter for—	2 16 3	„	Mu Valley.	
		Gun metal bearings for above	0 5 3	Each		

G. C. Press, Simla—No. 108 P. W. D.—11-9-94.—946.