(1) பக்கங்களின் எண்ணிக்கை 28

(2) புதுக்கித் திருப்பிய நாள் February/90

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம் [illegible]

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

நிதி துறை

அரசாணை எண். மு.கோப்புத் தாள் எண்.	2975 W.	அச்சகம் புலவகை

நாள் : 11.11.1990 [illegible]

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

D 87

ஆவண, கா-1—18,006—15-6-87.

[*General Distribution.*]

Circular No. 27.

2975
1

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

TO

THE MANAGER, NORTH WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE SUPERINTENDENT OF WORKS, CHAMAN EXTENSION.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List for Class C—Workshop Machinery and Heavy Tools for 1889.

Simla, 12th September 1890.

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 C State Railway stores, "Workshop Machinery and Heavy Tools," contracted for by the Stores Department of the India Office during 1889.

2. A table giving the average rates of sea freight for Class C stores imported from England to the several Ports in India for State Railways of both gauges during 1889-90 is prefixed to the Rate List.

I have the honour to be,

SIR,

Your most obedient servant,

R. A. SARGEAUNT, Lieut.-Col., R.E.,
Offg. Director General of Railways.

Documents accompanying.

1. Statement showing the average rates per ton for entire sea freight on Class C stores imported from England at the several Ports during 1889-90.
2. Rate List, Class C, Workshop Machinery and Heavy Tools for 1889.

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, Hyderabad, and Mysore, Public Works Department.
The Secretaries to the Agents to the Governors 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 Inspector General of Military Works.
The Accountant General, Public Works Department.
The Comptroller General.
The Accountant General, Bengal.
The Consulting Engineers for Railways, Madras and Bombay.
The Consulting Engineers to the Government of India for Railways, Calcutta, Lucknow and Central Division.
The Agent and General Manager, Assam Railways, and Trading Company, Limited.

Copy forwarded to the Local Governments, Administrations and Officers noted in the margin for information.

Lieut.-Col., R.E.,
Offg. Director General of Railways.

The Joint Secretary to the Government of Madras (Railway Branch) Public Works Department

2975/2

Enclosure to Director General of Railways' Circular No. 27 of 1890.

RATE LIST.

CLASS C.

WORKSHOP MACHINERY AND HEAVY TOOLS

FOR 1889.

G. C. Press, Simla—No. 590 P. W. D.—3-10-90—1040.

2975
3

Enclosure to Director General of Railways' Circular No. 27 of 1890.

RATE LIST.

CLASS C.

WORKSHOP MACHINERY AND HEAVY TOOLS

FOR 1889.

Enclosure to Director General of Railways' Circular No. 27 of 1890.

Statement shewing the average rates per ton for entire sea freight on C Class stores sent out from England to the several ports in India for State Railways of both gauges during 1889-90.

Class of Stores.	Port of Bombay.	Port of Calcutta.	Port of Karachi.	Port of Rangoon.	Remarks.
	s. d.	*s. d.*	*s. d.*	*s. d.*	
C. Workshop Machinery and Heavy Tools	20 0	28 5	22 10	35 0	

2973/4

CLASS OF STORES C.—WORKSHOP MACHINERY AND HEAVY TOOLS.

Contracted for in 1889.

Contract Number and date.		Description. Articles.	Details	Approximate gross weight. Weight. Tons.	cwt.	qr.	lbs.	Unit.	Rate—Free on board. Amount. £	s.	d.	Unit.	Remarks.
2315	23-5-89...	Anvils, Blacksmith's	With two holes for tools and 7" broad across the face ...	0	6	0	0	Each.	6	9	10	Each.	
2548	5-7-89 ...	" " ...	With two holes	0	3	0	0	"	2	3	11	"	
2840	12-10-89	Bellows, Smith's ...	Alldays' patent, screw pipe, 24"	...	...	...	...	...	9	12	0	Each.	
"	"	" " ...	" " " 36"	...	...	...	...	...	9	0	0	"	
2624	19-7-89..	Blower ...	Root's, for 30 fires, together with necessary countershafts, &c., and split pulley for main shaft, diameter of which is 3½" and runs at 100 revolutions per minute, no piping required.	...	...	...	...	...	117	0	0	Each.	
1825	14-1-89 ...	Crucible's Plumbago	No. 60 Morgan's	...	...	...	...	...	0	15	0	Each.	
2867	19-10-89...	" " ...	No. 60, "	...	...	...	...	...	0	15	0	"	
2894	13-11-89	" " ...	No. 40 Salamander, Morgan's	...	...	...	...	...	0	10	0	"	
...	...	...	No. 80, " "	...	...	...	...	...	1	0	0	"	

5/
29'75

CLASS OF STORES C.—WORKSHOP MACHINERY AND HEAVY TOOLS—*contd.*

Contracted for in 1889.

Contract Number and date.		Description. Articles.	Details.	Approximate gross weight. Weight. Tons.	cwt.	qr.	lbs.	Unit.	Rate—Free on board. Amount. £	s.	d.	Unit.	Remarks
3097	5-12-89	Engines, fire, hand	With 300′ of delivery hose in lengths of 50′ with couplings	0	19	2	0	Each.	125	10	0	Each.	
			The following to be supplied with engine :—										
			2 Gun-metal nozzles ½″										
			2 „ „ ¼″										
			1 „ spreader										
			1 Copper branch pipe with gun-metal mounting 36″, patent, No. 2993.										
			1 Copper branch pipe with gun-metal mounting 15″, patent, No. 2993.										
			1 Copper strainer (flat)										
			2 Pairs wrenches for suction and delivery hose										
			1 Shifting screw-driver, 300′ hose, canvas delivery										
			2½″ internal diameter in-lined with India-rubber, in 6 lengths of 50′ each, with gun-metal couplings, leather straps and collars, patent.										

CLASS OF STORES C.—WORKSHOP MACHINERY AND HEAVY TOOLS—*contd.*

Contracted for in 1889.

Contract Number and date.		Description. Articles.	Details.	Approximate gross weight. Weight. Tons.	cwt.	qr.	lbs.	Unit.	Rate—Free on board. Amount. £	s.	d.	Unit.	Remarks.
2843	15-10-89	Emery wheels	12″ × ½″ × ¼″ hole						0	6	6	Each.	
			12″ × ¾″ × ½″ „						0	7	10	„	
			12″ × 2″ × ¾″ „						1	0	6	„	
			36″ × 3″ × 24″ „						8	0	0	„	
2327	27-5-89	Forges, Smith's	Cast iron, with hoods, air valves with wrought iron handles, and pipes bolts and nuts suitable for connecting with the pipe from the blower, water tanks, slack troughs, tuyeres, fire bricks, and vertical wrought iron chimney 24 feet high from floor level, to each forge. The tuyeres are to be water tuyeres.						19	10	0	Each.	
2617	18-7-89	Furnaces, hot air	Fletcher's, for melting brass, to melt 5 cwt. per day, diameter of furnace 14″.	1	13	2	8		60	0	0	Each.	
			1 Extra set of liners						1	10	0	„	
			12 Salamander Crucibles No. 60						9	0	0	Lot.	
			12 „ „ No. 40						6	0	0	„	
			6 „ stands						3	15	0	„	
			Delivering furnace and liners F. O. B. London						1	4	6	„	
2489	21-6-89	Gauges, Mercurial	For pressure up to 4 lbs. per square inch						2	5	0	Each.	For testing Blast of Iron Foundry.

CLASS OF STORES C.—WORKSHOP MACHINERY AND HEAVY TOOLS—*contd.*

Contracted for in 1889.

Contract Number and date.		Description. Articles.	Details.	Approximate gross weight. Weight. Tons.	cwt.	qr.	lbs.	Unit.	Rate—Free on board. Amount. £	s.	d.	Unit.	Remarks.
2627	22-7-89	Lathe, wheel ...	For turning metre gauge engine wheels	23	10	0	0	Each.	638	0	0	Each.	
			Main shaft drum					,,	10	10	0	,,	
			Shafting, bright steel, 3½" diameter, in lengths of 14 feet ...						7	4	0	,, length.	
2671	13-8-89	Lathes, wheel, turning	With 5' 1½" diameter face plates						608	0	0	Each.	
		Ditto ...	,, 4' 5½" diameter face plates						452	0	0	,,	
2549	5-7-89	.....	Needle, round, No. 8						0	0	4	Each.	
2318	25-5-89		,, ,, 1						0	0	3	,,	
2711	6-9-89	Lubricators ...	,, ,, 1						0	0	2½	,,	
			Flat ,, 2									,,	
			Round ,, 3									,,	
			Flat ,, 4									,,	
2876	25-10-89	.....	Sight feed, or visible drop, Stroudleys, for cylinders of the newest and best design, suitable for locomotives.						5	0	0	,,	

CLASS OF STORES C.—WORKSHOP MACHINERY AND HEAVY TOOLS—*contd.*

Contracted for in 1889.

Contract Number and date.		Description. Articles.	Details.	Approximate gross weight. Weight. Tons.	cwt.	qr.	lbs.	Unit.	Rate—Free on board. Amount. £	s.	d.	Unit.	Remarks.
2455	20-6-89 ...	Machine, Bolt, Rivet, and Nut Forging	Horsfall's patent complete suitable for making bolts, nuts and rivets of the sizes given below, to be supplied with a double set of the following tools, which are to be interchangeable with the tools of other machines of the same size :—	5	2	0	0	Each.	525	0	0	Each.	
			BOLTS.										
			Square head and round neck ...										
			Hexagonhead and round neck nuts ...										
			Nuts										
			Square										
			Hexagon										
			In sizes from ⅜ inch to 1 inch (inclusive), rising by ⅛ inch.										
			RIVETS.										
			Snap head										
			Cheese head										
			Countersunk head										
			In sizes from ⅜ inch to ½ inch (inclusive), rising by ⅛ inch.										
			Each set of tools is to comprise in all the following parts :—										
			3 pairs of dies for bolts										
			6 pairs of side hammers for bolts										

9275/8

CLASS OF STORES C.—WORKSHOP MACHINERY AND HEAVY TOOLS—*contd.*

Contracted for in 1889.

Contract Number and date.		Description. Articles.	Details.	Approximate Gross Weight. Weight. Tons.	cwt.	qr.	lbs.	Unit.	Rate—Free on Board. Amount. £	s.	d.	Unit.	Remarks.
2455	20-6-89—(*contd.*).	Machine Bolt Rivet and Nut Forging—*contd.*	12 top tools for bolts										
			12 bottom tools for bolts										
			6 pairs of dies for nuts										
			6 pairs of side hammers for nuts										
			12 top tools for nuts										
			12 bottom tools for nuts										
			12 punches for nuts										
			3 pairs of dies for rivets										
			3 pairs of side hammers for rivets										
			10 top tools for rivets										
			10 bottom tools for rivets										
			The machine is also to be supplied with a double set of breaking blocks and six spare knives for the cut off side.										
2178	4-4-89 ...	Machines, coal boring	Elliotts, complete, with 2 sets of drills to each machine, size 4½" diameter; the longest drill to drill a hole in the coal 4' 6" deep ...						8	12	6	Each.	
			2 sets drills, extra						2	0	0	„	

CLASS OF STORES C.—WORKSHOP MACHINERY AND HEAVY TOOLS—*contd.*

Contracted for in 1889.

Contract Number and date.		Description. Articles.	Details.	Approximate Gross Weight. Weight. Tons.	cwt.	qr.	lbs.	Unit.	Rate—Free on Board. Amount. £	s.	d.	Unit.	Remarks.
2573	9-7-89 ...	Machine, Cutter, Grinding.	Suitable for grinding cutters up to 10" diameter and 6" wide and sharpening the teeth of circular saws up to 36" diameter.	0	17	0	0	Each.	96	0	0	Each.	
2157	21-3-89...	Machines Drilling ...	Pillar, with sliding arms						1	17	0	Each.	
2845	15-10-89	Machines, Drilling, Vertical.	Double geared, and suitable for drilling holes out of the solid up to 1¼" diameter and 15" deep, with a traverse of 1 inch in 90 revolutions, and boring holes up to 8" diameter at a distance of 19½" from the edge of the work, 30 inches deep on the table and 50 inches deep on the base plate.	2	1	0	0		101	0	0	Each.	
2842	15-10-89	Machines Drilling Hand	Self-feeding, double geared, to bolt on to bench fitted with table and vice, to swivel round the bases, to drill up to 1" holes, table 12" to 15" diameter. Each machine to be provided with one set of steel drills, the set consisting of 8 drills from ¼" to 1" diameter rising by ⅛th of an inch.	0	4	0	0	...	18	10	0	Each.	
2249	13-5-89...	.....	Ditto ditto ...	0	2	2	0		15	10		„	
1934 2700	7-2-89 and 2-9-89 ...	.....	Self-feeding, No. 2 Excelsiors patent, suitable for drilling up to ¾" holes 6" deep; each machine must be also complete in every respect and supplied with 6 drills of suitable sizes and one spanner.	0	0	2	6		5	6	6	„	Suitable for boiler makers' and ordinary work.

CLASS OF STORES C.—WORKSHOP MACHINERY AND HEAVY TOOLS—*contd.*

Contracted for in 1889.

Contract Number and date.		Description. Articles.	Details.	Approximate gross weight. Weight. Tons.	cwt.	qr.	lbs.	Unit.	Rate—Free on Board. Amount. £	s.	d.	Unit.	Remarks.
2571	8-7-89	Machines, Milling—*contd.*	an inch; eight spiral cutters 4½" diameter, width of face 3" to 6½" advancing by ⅛ an inch; eight grooving cutters cut on face and both edges in sizes 3½" to 7" diameter, advancing by ¼", width of face 1¼" to 3", advancing by ⅛ of an inch, and twenty angular cutters for cutting teeth in milling cutters, in sizes from 1½" to 4½" rising by ¼ of an inch, width of cutter ⅜ inch to 2⅛", advancing ⅛ of an inch.										
2088	2-3-89 ...	Machines Magnetic and Sweepings Separator.	Arranged for working either by hand or steam power as may be desired, complete. For separating small particles of iron or steel from brass or other metals or materials.	0	3	2	24	Each.	14	10	0	Each.	For Brass Founder's Engines, &c.
2088	2-3-89 ...	Machines, Oil, Testing	Ingram and Staffers patent No. A, for testing lubricating oil ...	0	0	3	0	„	9	10	0	„	
2008	13-7-89 ...	Machine, Twist, Drill, Grinding.	To grind twist, and flat drills, from ¼" to 1½" diameter with split pulley to main shaft, the diameter of which is 3½" and runs at 100 revolutions. Emery wheel 8½" diameter × 1½" broad, fastened to spindle by washer plates and nuts	0	14	0	0	Each.	59	3	0	Each.	

12

CLASS OF STORES C.—WORKSHOP MACHINERY AND HEAVY TOOLS—*concld.*

Contracted for in 1889.

Contract Number and date.		Description. Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on Board. Amount. £	s.	d.	Unit.	Remarks.
2276	17-5-89 ...	Surface Plate ...	2′ × 2′			0	9	10	Each.	
2746	13-9-89 ...	Spring ...	Spare, for 10 cwt. steam hammer			0	19	6	Each.	
2789	21-9-89 ...	Tool ...	Turning, diamond pointed, for turning up emery wheels			3	15	0	Each.	
2179	4-4-89 ...	Wedges ...	Mining, to suit a drill hole 4½" in diameter			14	0	0	Each.	Burnetts patent.
2843	15-10-89	Wheels, Emery ...	12" × ½" × ¼" hole			0	6	6	Each.	
	„		12" × ¾" × ⅜" „			0	7	10	„	
	„		12" × 2" × ½" „			1	0	6	„	
	„		36" × 3" × 2¾" „			8	0	0	„	
2015	20-2-89...	Wheels, bevil ...	For edge runners			20	5	0	Ton.	
		„ spur ...	Driving...			20	5	0	„	

13

SIMLA;
September 1890.

R. A. SARGEAUNT, Lieut.-Col. R.E.,
Offg. Director General of Railways.

2975/11

2975/12

Enclosure to Director General of Railways' Circular No. 27 of 1890.

Appendix

Steam Hammer 3 cwt. with duplicate parts as supplied on Contract No. 2610, dated 13th July 1889.

Particulars.	London.			Liverpool.		
	£	s.	d.	£	s.	d.
One 3 cwt. single standard steam hammer self-acting and hand worked, diameter of cylinder 7½″, length of stroke 1′ 5″, diameter of piston rod 4¼″, centre of hammer to side of standard 1′ 5″ total height 8′ 4″ complete with anvil block, bed plates, hammer, fans and foundation bolts, waste water pipes and cock, tallow plug, stop valve.						
Tons. cwt. qr. lbs.						
Total weight, approximate 10 11 0 0	110	0	0	115	0	0
Extras as follows:						
1 pair of steel swages for heating pins ...	3	5	0	3	10	0
1 „ die holders	4	0	0	4	5	0
100 feet 1½″ steam pipe	9	10	0	9	15	0
20 „ 3″ exhaust pipe	6	5	0	6	10	0
1 set of screw keys	1	6	0	1	7	0
1 spare steel hammer face	1	2	6	1	5	0
1 „ „ anvil „	1	2	6	1	5	0
1 „ set of 7½″ piston rings	0	7	6	0	8	0
1 „ „ of valve rings	0	3	0	0	3	6
6 copies of photographs	1	10	0	1	10	0
3 sets of tracings	6	0	0	6	0	0
	144	0	6	150	18	6

14

No 2975 Way II Nov 1890

Communicated to offices of the P.W. Department in continuation of P.W. No 2947 W dt 7 Nov 1890.

W.C.B. 7.11.90

S 8.11

Ch. S. for Rly ✓
S.S. P. Project ✓
Sub Insp ✓
Ch. Clerk ✓ 21/11/90
Insp Clerk

J.C. 22.11

From

THE DIRECTOR GENERAL
OF RAILWAYS,

To

Circular No. 27.

Dated Simla, the 12th September 1890.

Received 6-11-90

Enc 1 (Loose)

No. 2975 Way II Nov 15

INDIAN STATE RAILWAYS.

Rate List, Class C—"Workshop Machinery and Heavy Tools"—for 1889.

C. C. Press, Simla.—No. 924 P. W. D.—22-9-90.—1040.