Public Works (1899) Department.

G.O., No. 1765 W

DATED 10th July 1899.

[Despatch Abstract.]

Rate List, Class 6— Workshop Machinery and Heavy Tools for 1898: Circulars from the Director of Ry: Construction forwarding copies of ——, Comm'd to Offrs of the P.W. Dep't.

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[P. W. 2 3,000—29-3-99.]

Indexed. (3)7

BACK PAPERS.

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

FURTHER PAPERS.

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

P. W (1899) Department.

CURRENT No. 4724

W 5 W 1
W 8.98.

From The Director of Railway Construction, Simla.

B/
No. 1765 W dy 10-7-99

No. 7

Communicated to Officers of the P.W. Dept.

Dated 9-5-99

Received 12-6-99

Registered 14-6-99

Enclosure 1

Spare copies

Rwr

All 16/6

Dw.

SUBJECT.

Rate List Class C - Work Shop Machinery and Heavy Tools for 1898 :- Forwarding for information a copy of —

To The Chief Engr. for Irrigation &c
All Supts. Engrs. 15-5-99
The C.A. & Cost:
" Supdt. of Works, L.H. Dir. &c
" Examr. P.W. Accts &c

2 13/7/99

[P. W. 20. 9,000—15-89-9.]

O.S. 33

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

Enclosure to Director of Railway Construction's Circular No. 7 of 1899.

RATE LIST.

CLASS C.

WORKSHOP MACHINERY AND HEAVY TOOLS FOR 1898.

C. C. Press, Simla.—No. 2043 P. W. D.—28-5-99.—45.

Enclosure to Director of Railway Construction's Circular No. 7 of 1899.

Statement showing the average rates per ton for entire sea-freight on Class C stores sent out from England to the several Ports in India for State Railways of both gauges during 1898.

Class of Stores.	Kurrachee.	Bombay.	Coconada or Vizagapatam.	Calcutta.	Remarks.
	s. d.	s. d.	s. d.	s. d.	
C—Workshop Machinery and Heavy Tools	*	*	37 6	26 6	* No machinery shipped to these ports during 1898.

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

Contracted for in 1898.

Contract number and date.	Articles.	Details.	Approximate Gross Weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
			Tons. cwt. qr. lbs.		£ s. d.			
83 / 302 — 20-6-98	Diamonds ...	Set in shanks (for tool holders) for turning emery wheels, medium size, weight $\frac{3}{4}$th carat each.	Under 5 cwt.	Each.	3 2 6	Each.	Eastern Bengal.	
79 / 284 — 23-2-98	Emery Discs ...	24″ diametor × 3″ thick × 8″ hole ...	Under 5 cwt. each.	Each.	7 4 4	Each.	North Western.	
		22″ „ × 3″ „ × 10″ „ ...		„	4 11 4	„	Eastern Bengal.	
83 / 179 — 15-6-98		20″ „ × $2\frac{1}{2}$″ „ × 6″ „ ...		„	4 0 0	„		
		12″ „ × $\frac{1}{4}$″ „ × $\frac{3}{4}$″ „ ...		„	0 3 3	„	Warora Colliery.	
		12″ „ × $\frac{1}{4}$″ „ × $\frac{3}{4}$″ „ ...		„	0 3 0	„		For machine saw sharpening.
		12″ „ × $\frac{3}{8}$″ „ × $\frac{3}{4}$″ „ ...		„	0 4 6	„		
		3″ „ × $1\frac{1}{2}$″ „ × $\frac{9}{16}$″ „ ...		„	0 1 9	„	North Western ...	For machines lapping and grinding.
81 / 176 — 15-4-98		$2\frac{1}{4}$″ „ × $1\frac{1}{2}$″ „ × $\frac{9}{16}$″ „ ...		„	0 1 2	„		
		2″ „ × $1\frac{1}{2}$″ „ × $\frac{9}{16}$″ „ ...		„	0 1 0	„		
		$1\frac{1}{4}$″ „ × $1\frac{1}{2}$″ „ × $\frac{9}{16}$″ „ ...		„	0 0 6	„		

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

Contracted for in 1898.

Contract number and date.	Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
			Tons cwt. qr. lbs.		£ s. d.			
83/179 — 15-6-98	Emery Wheels ...	For sharpening saws— 12″ diameter × ½″ thick × ¾″ hole in centre, bevel edged.		Each	0 6 1	Each.	Lyallpur Khanewal.	
84/70 — 2-7-98		Spare, Crown Brand— 12″ × ¼″ × 1″ hole in centre	Under 5 cwt. each.	,,	0 3 0	,,	Eastern Bengal.	
		12″ × ⅜″ × 1″ ,, ...		,,	0 4 6	,,		
		12″ × ½″ × 1″ ,, ...		,,	0 6 0	,,		
		13″ × 1⅜″ × 1½″ ,, ...		,,	1 0 0	,,		
		8″ × 1½″ × 1½″ ,, ...		,,	0 8 0	,,		
		6″ × 2″ × 1½″ ,, ...		,,	0 6 0	,,		
81/291 — 23-4-98	Grindstones ...	Yorkshire coarse grit, spare stones— 5′ × 10″ × 2¼″ square hole	Under 5 cwt. each.	Each	4 4 0	Each.	North Western.	
		5′ 6″ × 10″ × 2¼″ ,, ...		,,	4 17 6	,,		
84/186 — 12-7-98	Grindstones— *concld.*	Newcastle Post, No. 4— 4′ diameter × 6″ thick with 3″ square hole in the centre.	Under 5 cwt. each.	Each	2 6 0	Each	Eastern Bengal.	
		4′ diameter × 6″ thick with 3¼″ square hole in the centre.		,,	2 6 0	,,		
		4′ 6″ diameter × 14″ thick with 3¼″ square hole in the centre.		,,	3 17 0	,,		
86/330 — 30-9-98		Yorkshire, medium grit— 36″ diameter × 6″ thick with 1½″ square hole		,,	0 18 6	,,	North Western.	
78/370 — 29-1-98	Hammers, Steam	3 cwt. single standard, overhanging, without guides, cylinder 7½″ diameter and 17″ stroke.	3 12 0 0	Each	120 0 0	Each	Eastern Bengal.	
		Spare parts—						
83/157 — 15-6-98		Anvil faces, cast steel, for steam hammer ...	Under 5 cwt. each.	,,	2 0 0	,,	Jorhat.	
		Piston and rod for 30 cwt. steam hammer, No. 70		,,	22 0 0	,,	Oudh and Rohilkhand.	
83/431 — 27-6-98		Piston and rod, steel, spare, for 30 cwt. steam hammer.		,,	27 10 0	,,	Eastern Bengal.	
84/73 — 2-7-98								

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

Contracted for in 1898.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount	Unit	For what railway.	Remarks.
		Spare parts—concld.	Tons. cwt. qr. lbs.		£ s. d.			
79/281 — 22-2-98	Hammers, steam—*concld.*	Tups, pistons and rods for steam hammers	.....	...	56 0 0	Each	North Western.	
89/241 — 20-12-98	Hearths ...	Single 4 feet square, with water tuyere, cistern and hearth back but without hood ...	.....	...	18 11 0	„	Bezwada Madras.	
78/316 — 27-1-98	Lathes, power ...	Wheel self-acting adapted to turn, without torsional strain of axle, a pair of wheels varying from 2 feet to 2 feet 6 inches diameter on the tread on axles from 3 feet to 5 feet 9 inches long, or to bore two tyres, boss or bore two wheels, boss and bore a wheel on one face and bore a tyre on the other at the same time and provided with two treble geared head stocks and two saddles moveable longitudinally on the bed by means of a rack motion complete in every respect.	.....	...	440 0 0	„	Eastern Bengal.	
83/347 — 24-6-98		8″ centre self-acting, screw cutting and surfacing, to take in work up to 4 feet long between the centres, supplied with set of change wheels for cutting screws from 1 to 22 threads per inch, and a 16″ diameter four jaw "universal" check, in place of "Cushman's" 100 ft. leather belting, complete with countershaft and all other tools and accessories, etc., required.	...	...	220 0 0	„	Jorhat.	
82/11 — 3-5-98		10″ centre, self-acting, screw cutting and surfacing lathe the fast head stock has a base of about 30″ long and 13″ wide and is double geared. The bed is of sufficient length to take 5′ between the centres, 18″ wide over the V's and 12″ deep. The guide screw is 2½″ diameter and is to be used for screw cutting only. The lathe is complete in every respect.	.....	...	180 0 0	„	Eastern Bengal.	
84/232 — 14-7-98		Self-acting, adapted to turn, without torsional strain of axle, a pair of wheels varying from 2′ to 4′ diameter on the tread, on axles up to 8′ 6″ long, or to bore two tyres, or to boss or bore two wheel, or to boss or bore a wheel on one face and to bore a tyre on the other at the same time, each lathe is provided with two treble geared head stocks, spindles of iron, two saddles moved longitudinally on the bed by means of a worm or rack motion, and is complete in every respect.	...	...	500 0 0	Each	Oudh and Rohilkhand.	
	Lubricators.	Needle, Lieuvain's patent—						
81/96 — 7-4-98		Nos. 1, 2 and 3	...	...	0 0 2¼	Each	North Western.	
		No. 1, round, 2 oz.	...	...	0 0 2½	„	Eastern Bengal.	
84/38 — 1-7-98		No. 2, flat, 1½ oz.	...	...	0 0 2½	„	Eastern Bengal.	
89/95 — 9-12-98	Machine, Drilling.	Hand, 9″ table to drill up to 1″ diameter ...	...	...	5 15 0	„	Eastern Bengal.	

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

Contracted for in 1898.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on Board. Amount.	Unit.	For what railway.	Remarks.
	Machines—*contd.*		Tons. cwt. qr. lbs.					
80/321 — 25-3-98	Bolt and nut forging.	Horsfall's patent combined No. 3 size. To make hexagonal and square headed bolts and nuts from $\frac{3}{4}''$ up to $1\frac{1}{2}''$ diameter inclusive rising by $\frac{1}{8}''$ fitted with a double set of tools and supplied with a double set of breaking blocks, 6 spare knives, etc., complete.	15 1 1 0	Each	1148 0 0	Each	Eastern Bengal.	
79/305 — 25-2-98	Drilling.	Radial, suitable for drilling holes out of the solid up to 3″ diameter and 12″ deep, with a feed traverse of $\frac{3}{4}$ of an inch to 90 revolutions of the drill spindle. The base plate is about 8′ 6″ long, 4′ 6″ wide and 6″ deep.	...	Each	280 0 0	Each	Eastern Bengal.	
82/11 — 3-5-98	Drilling, vertical.	Double geared and suitable for drilling holes out of the solid up to $2\frac{1}{2}''$ diameter and 12″ deep, with a traverse of 1″ in 90 revolutions and boring holes up to 15″ diameter at a distance of 2′ 6″ from the edge of the work and 2′ 6″ deep on the table.		Each	225 0 0	Each	Eastern Bengal.	
83/163 — 15-6-98	Planing.	Cutters for—						
		$2'' \times 3\frac{1}{2}'' \times \frac{5}{16}''$	Under 5 cwt.	Each	0 1 6	Each	North Western.	
83/163 — 15-6-98	Planing—*contd.*	Cutters for :— $4\frac{1}{2}'' \times 3\frac{1}{2}'' \times \frac{5}{16}''$	Under 5 cwt. each.	Each	0 3 0	,,	North Western.	
		$6\frac{1}{2}'' \times 4'' \times \frac{5}{16}''$		,,	0 3 9	,,		
		$8\frac{1}{2}'' \times \frac{1}{4} \times \frac{5}{16}''$		,,	0 4 9	,,		
		$10\frac{1}{2}'' \times 4'' \times \frac{5}{16}''$		,,	0 6 0	,,		
		$12\frac{1}{2}'' \times 4'' \times \frac{5}{16}''$		,,	0 7 0	,,		
86/224 — 17-9-98	Rivetting Hydraulic.	Fielding type, to hang, having distance of 4′ 6″ between the jaws and a reach of 3′ 6″ from inner edge of frame to centre of ram.	3 3 0 0	Each	155 0 0	Each	Indus Bridge Works	
83/101 — 10-6-98	Saws, circular.	26″ diameter × 6 S. W. G., 4 teeth to the inch, ground for cold sawing off the ends of old 68 lb. D. H. iron rails, to be used with rail sawing machines	Under 5 cwt.	Each	1 17 6	Each	Lyallpur Khaniwal.	
78/226 — 18-1-98	Screwing.	Seller's patent, to screw bolts and tap nuts from—						
		(1) $\frac{3}{16}''$ to $\frac{3}{4}''$ diameter rising by $\frac{1}{16}''$ diameters including 8 sets of dies (3 to a set) 8 machine taps for tapping nuts, set of jaws, set of tap holders, set of screw keys, overhead driving apparatus with reversing motion and set of 8 master taps of above sizes, &c., complete in every respect ...	1 5 0 0	Each	72 0 0	Each	Eastern Bengal.	
78/226 — 18-1-98		(2) $\frac{1}{4}''$ to $1\frac{1}{4}''$ diameter rising by $\frac{1}{8}''$ including 9 set of dies (3 per set) 9 machine taps, set of jaws, set of tap holders, set of screw keys, overhead driving apparatus with reversing motion and set of master taps of above sizes, &c., complete in every respect.	1 10 0 0	,,	98 0 0	,,		

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

Contracted for in 1898.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
	Machines—*concld.*		Tons. cwt. qr. lbs.		£. s. d.			
78/226 — 18-1-98	Screwing.	Seller's patent to screw bolts and tap nuts from :— $\frac{3}{4}$″ to $2\frac{1}{2}$″ diameter rising by $\frac{1}{8}$″ including 13 sets of dies (3 per set) 13 machine taps set of jaws, set of tap holders, set of screw keys, overhead driving apparatus with reversing motion, set of 13 master taps of above sizes, &c., complete in every respect.	2 10 0 0	...	192 0 0	Each	Eastern Bengal.	
79/305 — 25-2-98	Shaping.	To have a variable and adjustable stroke up to 20″ to plane work up to 2′ 8″ long and shape circular work up to 15″ in diameter, complete in every respect.	...	...	290 0 0	Each	Eastern Bengal.	
87/17 — 3-10-98	Shaping double geared	With an adjustable stroke up to 9″ self acting in vertical, angular, horizontal, and circular motion : tool-box fitted with quadrant, quick return motion, top driving apparatus complete : bed 3 feet long and fitted with a table and vice, complete in every respect.	...	...	110 0 0	Each	East Coast.	
78/61 — 8-1-98	Weighing.	Portable, Erhardt's, patent for weighing locomotives 5′ 6″ gauge with one lever graduated from 35 cwts. to $7\frac{1}{2}$ tons suitable for a rail of double headed section weighing 73 lbs. per yard.	...	...	25 7 0	Each	Eastern Bengal.	
86/141 — 10-9-98	Oil Gas Plant (Pintsch's).	*Duplicates for*— Bench of retorts and furnaces	...	...	250 0 0	Each	North Western.	
		Boiler, vertical, multitubular	...	...	75 0 0	,,	North Western.	
		Holders, store, high pressure	...	...	95 0 0	,,	Eastern Bengal.	
87/59 — 7-10-98		Holders, store, high pressure 19′ 6″ × 4′ 2″, complete with inlet, outlet, and hydrocarbon valves and pressure gauge.	...	...	95 0 0	,,	Eastern Bengal.	
		High pressure lead pipe $\frac{3}{4}$″	...	...	0 1 0	feet	Eastern Bengal.	
86/141 — 10-9-98		Hoses, gas filling with coupling, with shut off cock 30 ft. long.	...	...	6 17 6	Each	Do.	
88/217 — 21-11-98		High pressure lead pipe $\frac{3}{4}$″	...	...	0 1 0	feet	Do.	
		Main valves for high pressure lead pipe $\frac{3}{4}$″ ...	...	...	1 15 0	Each	Eastern Bengal.	
87/59 — 7-10-98		Pipe, flexible, metallic, 20′ long for filling gas with cocks complete.	...	...	6 17 6	,,	Eastern Bengal.	
		Trap boxes complete with fittings	...	...	3 5 0	,,	Eastern Bengal.	
82/63 — 11-5-98	Pulsometers.	With foot and back pressure valve with spare parts, *viz.*, 1 set air valves, 1 set I. R. disc valves, 1 three lip valve for foot valve and 1 neck and bolt.	...	...	53 7 0	,,	North Western.	
83/444 — 29-6-98	Stow Flexible shaft.	Steel cores 1″ for—	...	...	2 3 6	,,	Eastern Bengal.	

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

G. Lubbock Lt. R.E.
for Director.

To

THE Secretary to the Govt. of Madras Hem. 187
Public Works Department.

(Spare copies will follow)

G. C. Press, Simla.—No. 2043 P. W. D.—27-5-99.—45.