Enclosure to Director General of Railways' Circular No. 8 of 1894.

RATE LIST.

CLASS C.

WORKSHOP MACHINERY AND HEAVY TOOLS

FOR 1893.

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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 1893.

Class of stores.	Kurrachee.	Bombay.	Coconada or Vizagapatam.	Calcutta.	Rangoon.	Remarks.
	s. d.	s. d.	s. d.	s. d.	s. d.	
C.—Workshop Machinery and Heavy Tools ...	20 0	16 3	22 4	22 11	22 6	

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

Contracted for in 1893.

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.			
18/101	11-1-93	Anvils.	Smith's, or pike, measuring 2′ 11″ from end to end, steel faced.	0 3 0 0	Each	2 16 0	Each	Oudh and Rohilkhand.	
27/16	2-10-93		Smith's, or pike, and arch, steel faced ...	0 5 0 0	„	4 15 0	„	Mu Valley.	
20/527	30-3-93	Calorimeter.	Or fuel testing apparatus (Thomson's patent) NOTE.—*The Calorimeter, to consist of combustion cylinder, spring clutch, base, 6 cylindrical copper furnaces, 2 short cylindrical copper furnaces, glass water cylinder, thermometer, scales with gramme weights, iron pestle and mortar, sieve, canister for oxygen mixture, all in mahogany box, french polished and lined with cloth, with lock and key.*	.....	...	6 6 0	Each	North Western.	
24/201	15-7-93	Engines, fire.	Hand, complete, with 300 feet hose, canvas, delivery, and 26 feet hose, leather, suction. To draw water either by its own cistern or by suction, and to have two 6-inch gun-metal pumps with 8-inch stroke.	1 0 2 8	Each	122 0 0	Each	East Coast.	
25/172	11-8-93		Do. do. do.	1 6 3 4	„	121 10 0	„	Mu Valley.	

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

Contracted for in 1893.

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.			
18/101	11-1-93	Anvils.	Smith's, or pike, measuring 2′ 11″ from end to end, steel faced.	0 3 0 0	Each	2 16 0	Each	Oudh and Rohilkhand.	
27/16	2-10-93		Smith's, or pike, and arch, steel faced ...	0 5 0 0	„	4 15 0	„	Mu Valley.	
20/527	30-3-93	Calorimeter.	Or fuel testing apparatus (Thomson's patent) NOTE.—*The Calorimeter, to consist of combustion cylinder, spring clutch, base, 6 cylindrical copper furnaces, 2 short cylindrical copper furnaces, glass water cylinder, thermometer, scales with gramme weights, iron pestle and mortar, sieve, canister for oxygen mixture, all in mahogany box, french polished and lined with cloth, with lock and key.*	.....	...	6 6 0	Each	North Western.	
24/201	15-7-93	Engines, fire.	Hand, complete, with 300 feet hose, canvas, delivery, and 26 feet hose, leather, suction. To draw water either by its own cistern or by suction, and to have two 6-inch gun-metal pumps with 8-inch stroke.	1 0 2 8	Each	122 0 0	Each	East Coast.	
25/172	11-8-93		Do. do. do.	1 6 3 4	„	121 10 0	„	Mu Valley.	

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

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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.			
18/101	11-1-93	Anvils.	Smith's, or pike, measuring 2′ 11″ from end to end, steel faced.	0 3 0 0	Each	2 16 0	Each	Oudh and Rohilkhand.	
27/16	2-10-93		Smith's, or pike, and arch, steel faced ...	0 5 0 0	„	4 15 0	„	Mu Valley.	
20/527	30-3-93	Calorimeter.	Or fuel testing apparatus (Thomson's patent) NOTE.—*The Calorimeter, to consist of combustion cylinder, spring clutch, base, 6 cylindrical copper furnaces, 2 short cylindrical copper furnaces, glass water cylinder, thermometer, scales with gramme weights, iron pestle and mortar, sieve, canister for oxygen mixture, all in mahogany box, french polished and lined with cloth, with lock and key.*	.....	...	6 6 0	Each	North Western.	
24/201	15-7-93	Engines, fire.	Hand, complete, with 300 feet hose, canvas, delivery, and 26 feet hose, leather, suction. To draw water either by its own cistern or by suction, and to have two 6-inch gun-metal pumps with 8-inch stroke.	1 0 2 8	Each	122 0 0	Each	East Coast.	
25/172	11-8-93		Do. do. do.	1 6 3 4	„	121 10 0	„	Mu Valley.	

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

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
				Tons. cwt. qr. lbs.		£ s. d.			
23 / 400	28-6-93	Engines, Stationary	Compound, high pressure of 16 nominal horse power, mounted upon a *w. i.* or steel framing of channel section, underneath a locomotive type multitubular-boiler, with duplicate parts, with all necessary mountings, pipes, valves, bolts, etc., for connecting and fixing it ready for work in India. *Particulars of stationary engine.* *Diameter of high pressure cylinder, 8 inches* *" low " " 12¾ "* *Length of piston stroke 14 "* *Diameter of crank shaft journals 4¼ "* *Length of boiler barrel 7 feet 11 "* *Diameter of " " 3 feet 2½ "* *Length of fire box 4 feet 3 "* *Width of " 3 feet 3 "*	12 19 3 0	Each	449 0 0	Each	Jorhat ...	Includes price of 3 sets tracings and 6 copies of photographs.
			Spare parts of— Crank shaft, steel, for wheel shop stationary engine.	0 6 1 20	"	28 11 3	"	Oudh and Rohilkhand.	
24 / 295	22-7-93								
		Forges.	Smiths, with hearths, 4 feet by 4 feet complete, with 15 feet chimneys.	1 9 3 5	Each	25 17 0	Each	East-Coast.	
25 / 138	5-8-93								

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

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
				Tons. cwt. qr. lbs.		£ s. d.			
24 / 236	19-7-93	Furnaces.	"Piats" brass melting, each complete with fan (size N. to hold Morgan's 90 lbs. crucibles).	1 0 0 17	Each	59 18 0	Each	North Western...	Includes cost of casks, packing and delivery, etc.
24 / 184	15-7-93	Gauges, pressure.	Steam, to register 200 lbs. per square inch, 6" dial, each with cock and syphon.	...	...	1 4 0	Each	Umaria-Colliery	
21 / 259	26-4-93	Gauges, test.	Hydraulic, with 10" dial fitted with both actual and maximum pressure indicator hand, to read from 0 to 2,000 lbs. per square inch, and graduated to read 100 lbs.	...	...	5 0 0	Each	Burma ...	Required for tube and steam pipe testing machine.
26 / 281	27-9-93		Do. do. do. ...	...	...	5 0 0	"	Mu Valley.	"
18 / 140	13-1-93	Grindstones.	Newcastle post, No. 4, 6 feet × 10", with hole 4" × 4".	...	...	9 17 0	Each	Oudh and Rohilkhand.	For grinding files.
21 / 40	6-4-93		Newcastle post, No. 3, 48" × 8", centre hole 3" square, medium grit.	...	...	3 6 0	"	Burma ...	Without trough.
22 / 16	1-5-93		Newcastle post, No. 3, 48" × 8", centre hole 3" square, medium grit.	...	...	3 6 0	"	Do.	"

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
			Tons. cwt. qr. lbs.		£ s. d.			
23/422 29-6-93	Grindstones—*concld.*	Newcastle post, No. 3, 48″ × 8″, centre hole 3″ square, medium grit.	...	...	3 6 0	Each	Burma ...	Without trough.
27/125 19-10-93		Newcastle post, No. 3, 48″ × 8″, centre hole 3″ square, medium grit.	...	...	2 13 0	„	Do.	„
27/47 6-10-93		Newcastle post, No. 3, 53″ × 8″, centre hole 3″ × 3″.	...	...	5 8 0	„	East Coast.	„
29/99 14-12-93		Best Ayrshire, coarse, 60″ × 8″, with square hole 2½″.	...	...	3 13 8	„	Burma.	„
20/119 8-3-93		Yorkshire, fine, 30″ diameter, × 4″ thick, centre hole 1½″ diameter.	...	...	4 10 0	„	Eastern Bengal.	Spare stone.
20/226 13-3-93		Yorkshire, fine, 24″ × 4″ thick, with trough.	...	...	2 5 0	„	Burma ...	Without troughs.
24/426 31-7-93		Trough for grindstone, with steel spindle, for steam power, and for a stone 53″ diameter, 8″ thick.	...	...	10 0 0	„	East Coast.	„

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
		Spare parts of—	Tons. cwt. qr. lbs.		£ s. d.			
24/294 22-7-93	Hammer, steam ...	Piston rod of the "best forged scrap iron" for 30 cwt., steam hammer.	0 9 2 11	Each	20 0 0	Each	Oudh and Rohilkhand.	
		Piston rod of the "best forged scrap iron" for 20 cwt., steam hammer.	0 6 3 17	„	15 5 0	„		
24/291 21-7-93	Indicators, speed ...	Stroudley's, with piping, pulleys, belting and all necessary gearing.	...	...	12 0 0	Each	East Coast.	
24/140 13-7-93	Indicators, steam ...	Engine (Richard's) each in Mahogany case, fitted with Darkes patent detent and cord adjuster, book of instructions. 4 packets of metallic paper, a complete set of 12 springs for vacuum and pressure, with scales to suit, steel parallel, square, stop cock and tap, screw driver, cylinder cleaner, and 2 spare springs for paper cylinder.	...	...	6 3 1	Each	East Coast.	
25/10 1-8-93		For taking diagrams for locomotives with springs, papers, scales, complete.	...	...	10 11 0	Each	Oudh and Rohilkhand.	
		Note.—*Each indicator to be supplied complete with springs and scales suitable for taking diagrams on locomotives working from 10 lbs. up to 180 lbs. per square inch steam pressure, and 600 sheets of metallic paper.*						

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
			Tons. cwt. qr. lbs.		£ s. d.			
18/301 — 26-1-93	Machines.	Horsfall's patent, No. 2 size, suitable for forging iron or steel bolts, nuts, and rivets of the following sizes :—	5 5 1 0	Each	485 0 0	Each	East Coast.	
		Bolts and nuts, with square and hexagon heads, and round necks in sizes from $\frac{3}{8}$" to $\frac{7}{8}$" (inclusive) rising by $\frac{1}{8}$".						
		Rivets, cuphead, $\frac{7}{16}$", $\frac{9}{16}$", $\frac{11}{16}$", $\frac{13}{16}$" and $\frac{15}{16}$".						
	Bolt, nut, and rivet making.	*Rivets countersunk heads $\frac{7}{16}$" and $\frac{15}{16}$".*						
24/216 — 17-7-93		Horsfall's patent, suitable for forging bolts, nuts and rivets of the following sizes :—	5 8 0 7	,,	500 0 0	,,	Oudh and Rohilkhand.	Similar to the machine supplied under Contract No. 2455 of 1889.
		Bolts and nuts, with square and hexagon heads and round necks in sizes from $\frac{5}{8}$" to 1" (inclusive) rising by $\frac{1}{8}$".						
		Rivets, snap head, cheese head and countersunk head, in sizes, from $\frac{5}{8}$" to $\frac{7}{8}$" (inclusive) rising by $\frac{1}{8}$".						

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
			Tons. cwt. qr. lbs.		£ s. d.			
	Machines—*contd.*							
26/300 — 29-9-93	Drilling ...	Hand, double geared, self-feeding, to bolt on to bench, fitted with table and vice, to swivel round the base. To drill up to 1" holes. Table 12" to 15" diameter.	0 4 0 0	Each	18 10 0	Each	Mu Valley ...	The machine to be similar in every respect to those supplied under Contract No. 2842 of 1889.
		Spare discs for—						
21/4 — 1-4-93		12" × 1½" × ¾" hole	.....	...	0 18 6	Each	Oudh and Rohilkhand.	
22/61 — 5-5-93		12" × ½" × ¾" ,, ...	.....	...	0 6 7	,,		
23/443 — 29-6-93	Emery grinding ...	12" × ½" × ¾" ,, ...	.....	...	0 6 8	,,		
27/113 — 16-10-93		12" × ½" × ¾" ,, ...	.....	...	0 6 6	,,	Burma.	
22/61 — 5-5-93		12" × ⅜" × ¾" ,, ...	.....	...	0 5 1	,,		
23/443 — 29-6-93		12" × ⅜" × ¾" ,, ...	.....	...	0 5 2	,,		
29/246 — 28-12 93		Self-acting, suitable for grinding plane irons up to 30" long.	0 12 1 0	Each	44 0 0	Each	East Coast	Without main shaft drum.
29/18 — 4 12-93	Grinding ...	Universal surface and periphery grinder suitable for facing nuts, keys, and other small work in iron or brass.	1 0 3 7	,,	62 14 6	,,		

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
	Machines—*contd.*		Tons. cwt. qr. lbs.		£ *s.* *d.*			
26/111 — 8-9-93	Heading ...	Single (Stanley), 6 feet complete, with spare screw and 1st and 2nd motion shaft pinions spare crank shaft. NOTE.—*The machine to be fitted with reversing arrangement to propel the frame, and all the latest improvements.*	5 0 2 0	Each	350 0 0	Each	Warora Colliery.	
29/245 — 28-12-93	(Log) Frame Saw	With 40 blades, to cut up to 30 inches square, and 30 feet long, with roller feed motion and spare saws. NOTE.—*To be supplied with 130 running feet of steel rails of bridge section, with all necessary screws for fixing the rails to wooden beams; 40 best steel saws with hooks, buckles, tillers and steel keys, fitted complete, and ready for work, and 40 spare saws.*	.....	...	558 0 0	Each	East Coast.	
28/316 — 24-11-93	Milling, treble	For brasswork, suitable for nut shaping and general work having any number of sides, to have 2 nut mandrils (one for the nuts of ¾ inch bolts) and 2 dozen assorted steel cutters.	1 2 2 0	Each	88 10 0	Each	East Coast.	

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
	Machines—*contd.*		Tons. cwt. qr. lbs.		£ *s.* *d.*			
27/126 — 19-10-93	Panel planing and thicknessing.	Steel cutters or plane iron to suit Robinson's Z 3 improved—	.....	...	1 4 0	Each	Burma.	
24/115 — 11-7-93	Saw sharpening	Spare discs for— 12″ diameter × ¼″ thick × ¾″ hole	.....	...	0 3 2	Each	North Western.	
		12″ „ × ⅜″ „ × ¾″ „	.....	...	0 4 9	„		
		12″ „ × ⅝″ „ × ¾″ „	.....	...	0 7 9	„		
22/8 — 1-5-93	Sand mixer ...	Centrifugal (Schurtzes patent) to be worked by manual labour.	.....	...	31 15 0	Each	Burma.	
23/419 — 29-6-93	Spring testing ...	Worked by hydraulic pressure, capable of testing locomotive or carriage springs up to 6 feet in length and up to a pressure of 20 tons.	2 12 1 0	Each	153 0 0	Each	Burma.	
20/523 — 30-3-93	Tin working ...	Circle cutting, tinsmith's No. 1 size, to cut circles 2½″ to 14″ diameter.	.....	...	2 0 3	Each	Burma.	
		Shears, guillotine squaring, for foot power, size of knives 20⅜″ long.	.....	...	5 7 6	„		

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
	Machines—*contd.*		Tons. cwt. qr. lbs.		£ *s.* *d.*			
26/111 — 8-9-93	Heading ...	Single (Stanley), 6 feet complete, with spare screw and 1st and 2nd motion shaft pinions spare crank shaft. NOTE.—*The machine to be fitted with reversing arrangement to propel the frame, and all the latest improvements.*	5 0 2 0	Each	350 0 0	Each	Warora Colliery.	
29/245 — 28-12-93	(Log) Frame Saw	With 40 blades, to cut up to 30 inches square, and 30 feet long, with roller feed motion and spare saws. NOTE.—*To be supplied with 130 running feet of steel rails of bridge section, with all necessary screws for fixing the rails to wooden beams; 40 best steel saws with hooks, buckles, tillers and steel keys, fitted complete, and ready for work, and 40 spare saws.*	.....	...	558 0 0	Each	East Coast.	
28/316 — 24-11-93	Milling, treble	For brasswork, suitable for nut shaping and general work having any number of sides, to have 2 nut mandrils (one for the nuts of ¾ inch bolts) and 2 dozen assorted steel cutters.	1 2 2 0	Each	88 10 0	Each	East Coast.	

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
	Machines—*contd.*		Tons. cwt. qr. lbs.		£ *s.* *d.*			
27/126 — 19-10-93	Panel planing and thicknessing.	Steel cutters or plane iron to suit Robinson's Z 3 improved—	.....	...	1 4 0	Each	Burma.	
24/115 — 11-7-93	Saw sharpening	Spare discs for— 12″ diameter × ¼″ thick × ¾″ hole	.....	...	0 3 2	Each	North Western.	
		12″ „ × ⅜″ „ × ¾″ „	.....	...	0 4 9	„		
		12″ „ × ⅝″ „ × ¾″ „	.....	...	0 7 9	„		
22/8 — 1-5-93	Sand mixer ...	Centrifugal (Schurtzes patent) to be worked by manual labour.	.....	...	31 15 0	Each	Burma.	
23/419 — 29-6-93	Spring testing ...	Worked by hydraulic pressure, capable of testing locomotive or carriage springs up to 6 feet in length and up to a pressure of 20 tons.	2 12 1 0	Each	153 0 0	Each	Burma.	
20/523 — 30-3-93	Tin working ...	Circle cutting, tinsmith's No. 1 size, to cut circles 2½″ to 14″ diameter.	.....	...	2 0 3	Each	Burma.	
		Shears, guillotine squaring, for foot power, size of knives 20⅜″ long.	.....	...	5 7 6	„		

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
	Machines—*contd.*		Tons. cwt. qr. lbs.		£ *s.* *d.*			
26/111 — 8-9-93	Heading ...	Single (Stanley), 6 feet complete, with spare screw and 1st and 2nd motion shaft pinions spare crank shaft. NOTE.—*The machine to be fitted with reversing arrangement to propel the frame, and all the latest improvements.*	5 0 2 0	Each	350 0 0	Each	Warora Colliery.	
29/246 — 28-12-93	(Log) Frame Saw	With 40 blades, to cut up to 30 inches square, and 30 feet long, with roller feed motion and spare saws. NOTE.—*To be supplied with 130 running feet of steel rails of bridge section, with all necessary screws for fixing the rails to wooden beams; 40 best steel saws with hooks, buckles, tillers and steel keys, fitted complete, and ready for work, and 40 spare saws.*	.....	...	558 0 0	Each	East Coast.	
28/316 — 24-11-93	Milling, treble	For brasswork, suitable for nut shaping and general work having any number of sides, to have 2 nut mandrils (one for the nuts of ¾ inch bolts) and 2 dozen assorted steel cutters	1 2 2 0	Each	88 10 0	Each	East Coast.	

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
	Machines—*contd.*		Tons. cwt. qr. lbs.		£ *s.* *d.*			
27/126 — 19-10-93	Panel planing and thicknessing.	Steel cutters or plane iron to suit Robinson's Z 3 improved—	.....	...	1 4 0	Each	Burma.	
24/115 — 11-7-93	Saw sharpening	Spare discs for— 12″ diameter × ¼″ thick × ¾″ hole	.....	...	0 3 2	Each	North Western.	
		12″ ,, × ⅜″ ,, × ¾″ ,,	.....	...	0 4 9	,,		
		12″ ,, × ⅝″ ,, × ¾″ ,,	.....	...	0 7 9	,,		
22/8 — 1-5-93	Sand mixer ...	Centrifugal (Schurtzes patent) to be worked by manual labour.	.....	...	31 15 0	Each	Burma.	
23/419 — 29-6-93	Spring testing ...	Worked by hydraulic pressure, capable of testing locomotive or carriage springs up to 6 feet in length and up to a pressure of 20 tons.	2 12 1 0	Each	153 0 0	Each	Burma.	
20/523 — 30-3-93	Tin working ...	Circle cutting, tinsmith's No. 1 size, to cut circles 2½″ to 14″ diameter.	.....	...	2 0 3	Each	Burma.	
		Shears, guillotine squaring, for foot power, size of knives 20⅜″ long.	.....	...	5 7 6	,,		

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

Contracted for in 1893.

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.*			
24/21 — 15-7-93	Trimmers ...	Pattern makers (Fox's patent) No. 4A....	0 0 0 24	Each	6 6 0	Each	Burma.	
19/65 — 17-2-93	Weighing locomotive.	(Ehrhardt's) for weighing broad gauge locomotives, with eight wheels; with two levers, graduated for weighing from 6 to 35 cwt. and from 35 cwt. to 7½ tons respectively.	0 13 0 20	Set	212 0 0	Set	East Coast ...	One set consists of 8 machines.
26/251 — 22-9-93	Weighing locomotive.	(Ehrhardt's) for weighing metre gauge locomotives and the bogies of O class engines; with double dial for weighing from 16 to 35 cwts. and from 35 cwts. to 7½ tons. NOTE — *Machine to be suitable for a 41¼ lb. Vignole's rail.*	0 13 0 20	„	188 0 0	„	Mu Valley ...	
26/311 — 29-9-93	Mill, paint mixing	With fast and loose pulleys, for working from shafting, height about 19″, weight about 60lbs., delivery per 8 hours about 1½ cwt. 80 to 90 revolutions per minute, diameter of the funnel at top about 8″, and height of the funnel about 7½″.	.....	...	4 2 6	Each	Mu Valley.	
26/160 — 14-9-93	Shafts ...	Steel, for No. 1 pit-pumping engines ...	0 12 3 18	Each	15 10 0	Each	Warora Colliery.	

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
			Tons. cwt. qr. lbs.		£ *s.* *d.*			
24/67 — 10-7-93	Surface, or levelling plates, Engineers.	12″ × 12″	.....	...	2 6 0	Each	East Coast.	
		20″ × 8″	.....	...	2 8 0	„		
		36″ × 8″	.....	...	4 7 0	„		
		48″ × 24″	.....	...	14 6 0	„		
		NOTE.—To be well-ribbed at back, free from honeycomb, and planed perfectly true on the face and four sides.						
22/133 — 12-5-93	Valves (Steam) stop	Gun-metal, 1″ with two flanges, gun-metal hand wheel, and glands packed with asbestos.	.....	...	0 13 6	Each	Umaria Colliery.	
20/376 — 21-3-93	Vices, bench ...	Parallel wrought-iron— 2″	.....	...	1 2 6	Each	Eastern Bengal.	
		3″	.....	...	1 10 0	„		
		4″	.....	...	1 12 0	„		

[*General Distribution.*]

Circular No. 8.

FROM

TO THE DIRECTOR GENERAL OF RAILWAYS,

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-UJJAIN 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, BEZWADA-MADRAS RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, NORTH WESTERN RAILWAY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List Class C—Workshop Machinery and Heavy Tools, for 1893.

Simla, the 19th 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 C—State railway stores, "Workshop Machinery and Heavy 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 C stores imported from England to the several ports in India for State railways of both gauges during 1893, is prefixed to the Rate List.

3. In order to arrive at the total cost of Class C 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,

J. Gracey

~~W. S. S. BISSET~~, Lieut.-Colonel, 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 to the several ports during 1893.

2. Rate List, Class C—Workshop Machinery and Heavy Tools for 1893.

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

P. W. CURRENT No. 7853

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.

Secy (60 S.C)
60 S.C
Rec: 17.10.94

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

9/10/94

To

The Secretary to the Govt of Madras
Public Works Deptt

60 Sec. Book-by Packet-post
No. 2646 dt 19th October 1894.

Communicated to
offices of the Public Works
Dept: for information.

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Enclosure to Director General of Railways' Circular No. 8 of 1894.

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RATE LIST.

CLASS C.

WORKSHOP MACHINERY AND HEAVY TOOLS

FOR 1893.

Enclosure to Director General of Railways' Circular No. 8 of 1894.

RATE LIST.

CLASS C.

WORKSHOP MACHINERY AND HEAVY TOOLS

FOR 1893.

Enclosure to Director General of Railways' Circular No. 8 of 1894.

RATE LIST.

CLASS C.

WORKSHOP MACHINERY AND HEAVY TOOLS

FOR 1893.

Enclosure to Director General of Railways' Circular No. 8 of 1894.

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 1893.

Class of stores.	Kurrachee.	Bombay.	Coconada or Vizagapatam.	Calcutta.	Rangoon.	Remarks.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	
C.—Workshop Machinery and Heavy Tools ...	20 0	16 3	22 4	22 11	22 6	

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

Contracted for in 1893.

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.			
18/101	11-1-93	Anvils.	Smith's, or pike, measuring 2′ 11″ from end to end, steel faced.	0 3 0 0	Each	2 16 0	Each	Oudh and Rohilkhand.	
27/16	2-10-93		Smith's, or pike, and arch, steel faced ...	0 5 0 0	,,	4 15 0	,,	Mu Valley.	
20/527	30-3-93	Calorimeter.	Or fuel testing apparatus (Thomson's patent) NOTE.—*The Calorimeter, to consist of combustion cylinder, spring clutch, base, 6 cylindrical copper furnaces, 2 short cylindrical copper furnaces, glass water cylinder, thermometer, scales with gramme weights, iron pestle and mortar, sieve, canister for oxygen mixture, all in mahogany box, french polished and lined with cloth, with lock and key.*	.....	...	6 6 0	Each	North Western.	
24/201	15-7-93	Engines, fire.	Hand, complete, with 300 feet hose, canvas, delivery, and 26 feet hose, leather, suction. To draw water either by its own cistern or by suction, and to have two 6-inch gun-metal pumps with 8-inch stroke.	1 0 2 8	Each	122 0 0	Each	East Coast.	
25/172	11-8-93		Do. do. do.	1 6 3 4	,,	121 10 0	,,	Mu Valley.	

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

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
				Tons. cwt. qr. lbs.		£ s. d.			
23/400	28-6-93	Engines, Stationary	Compound, high pressure of 16 nominal horse power, mounted upon a *w. i.* or *steel framing of channel section, underneath a locomotive type multitubular* boiler, with duplicate parts, with all necessary mountings, pipes, valves, bolts, etc., for connecting and fixing it ready for work in India. *Particulars of stationary engine.* *Diameter of high pressure cylinder, 8 inches* *" low " " 12¾ "* *Length of piston stroke 14 "* *Diameter of crank shaft journals 4¼ "* *Length of boiler barrel 7 feet 11 "* *Diameter of " " 3 feet 2½ "* *Length of fire box 4 feet 3 "* *Width of " 3 feet 5 "*	12 19 3 0	Each	449 0 0	Each	Jorhat ...	Includes price of 3 sets tracings and 6 copies of photographs.
24/295	22-7-93		*Spare parts of—* Crank shaft, steel, for wheel shop stationary engine.	0 6 1 20	"	28 11 3	"	Oudh and Rohilkhand.	
25/138	5-8-93	Forges.	Smiths, with hearths, 4 feet by 4 feet complete, with 15 feet chimneys.	1 9 3 5	Each	25 17 0	Each	East-Coast.	

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

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
				Tons. cwt. qr. lbs.		£ s. d.			
24/236	19-7-93	Furnaces.	"Piats" brass melting, each complete with fan (size N. to hold Morgan's 90 lbs. crucibles).	1 0 0 17	Each	59 18 0	Each	North Western...	Includes cost of casks, packing and delivery, etc.
24/184	15-7-93	Gauges, pressure.	Steam, to register 200 lbs. per square inch, 6" dial, each with cock and syphon.	...	...	1 4 0	Each	Umaria-Colliery	
21/259	26-4-93	Gauges, test.	Hydraulic, with 10" dial fitted with both actual and maximum pressure indicator hand, to read from 0 to 2,000 lbs. per square inch, and graduated to read 100 lbs.	...	...	5 0 0	Each	Burma ...	Required for tube and steam pipe testing machine.
26/281	27-9-93		Do. do. do. ...	...	...	5 0 0	"	Mu Valley.	"
18/140	13-1-93	Grindstones.	Newcastle post, No. 4, 6 feet × 10", with hole 4" × 4".	...	...	9 17 0	Each	Oudh and Rohilkhand.	For grinding files.
21/40	6-4-93		Newcastle post, No. 3, 48" × 8", centre hole 3" square, medium grit.	...	...	3 6 0	"	Burma ...	Without trough.
22/16	1-5-93		Newcastle post, No. 3, 48" × 8", centre hole 3" square, medium grit.	...	...	3 6 0	"	Do.	"

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

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
				Tons. cwt. qr. lbs.		£ s. d.			
23/400	28-6-93	Engines, Stationary	Compound, high pressure of 16 nominal horse power, mounted upon a *w. i.* or steel framing of channel section, underneath a locomotive type multitubular-boiler, with duplicate parts, with all necessary mountings, pipes, valves, bolts, etc., for connecting and fixing it ready for work in India. *Particulars of stationary engine.* *Diameter of high pressure cylinder,* 8 *inches* „ *low* „ „ 12¾ „ *Length of piston stroke* 14 „ *Diameter of crank shaft journals* 4¼ „ *Length of boiler barrel* 7 *feet* 11 „ *Diameter of* „ „ 3 *feet* 2½ „ *Length of fire box* 4 *feet* 3 „ *Width of* „ 3 *feet* 5 „	12 19 3 0	Each	449 0 0	Each	Jorhat ...	Includes price of 3 sets tracings and 6 copies of photographs.
24/295	22-7-93		*Spare parts of—* Crank shaft, steel, for wheel shop stationary engine.	0 6 1 20	„	28 11 3	„	Oudh and Rohilkhand.	
25/138	5-8-93	Forges.	Smiths, with hearths, 4 feet by 4 feet complete, with 15 feet chimneys.	1 9 3 5	Each	25 17 0	Each	East-Coast.	

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

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
				Tons. cwt. qr. lbs.		£ s. d.			
24/236	19-7-93	Furnaces.	"Piats" brass melting, each complete with fan (size N. to hold Morgan's 90 lbs. crucibles).	1 0 0 17	Each	59 18 0	Each	North Western...	Includes cost of casks, packing and delivery, etc.
24/184	15-7-93	Gauges, pressure.	Steam, to register 200 lbs. per square inch, 6″ dial, each with cock and syphon.	...	...	1 4 0	Each	Umaria-Colliery	
21/259	26-4-93	Gauges, test.	Hydraulic, with 10″ dial fitted with both actual and maximum pressure indicator hand, to read from 0 to 2,000 lbs. per square inch, and graduated to read 100 lbs.	...	...	5 0 0	Each	Burma ...	Required for tube and steam pipe testing machine.
26/281	27-9-93		Do. do. do. ...	...	...	5 0 0	„	Mu Valley.	„
18/140	13-1-93	Grindstones.	Newcastle post, No. 4, 6 feet × 10″, with hole 4″ × 4″.	...	...	9 17 0	Each	Oudh and Rohilkhand.	For grinding files.
21/40	6-4-93		Newcastle post, No. 3, 48″ × 8″, centre hole 3″ square, medium grit.	...	...	3 6 0	„	Burma ...	Without trough.
22/16	1-5-93		Newcastle post, No. 3, 48″ × 8″, centre hole 3″ square, medium grit.	...	...	3 6 0	„	Do.	„

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

Contracted for in 1893.

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.			
23/422 29-6-93	Grindstones—*concld.*	Newcastle post, No. 3, 48″ × 8″, centre hole 3″ square, medium grit.	...	...	3 6 0	Each	Burma ...	Without trough.
27/125 19-10-93		Newcastle post, No. 3, 48″ × 8″, centre hole 3″ square, medium grit.	...	...	2 13 0	,,	Do.	,,
27/47 6-10-93		Newcastle post, No. 3, 53″ × 8″, centre hole 3″ × 3″.	...	...	5 8 0	,,	East Coast.	,,
29/99 14-12-93		Best Ayrshire, coarse, 60″ × 8″, with square hole 2½″.	...	...	3 13 8	,,	Burma.	,,
20/119 8-3-93		Yorkshire, fine, 30″ diameter, × 4″ thick, centre hole 1½″ diameter.	...	...	4 10 0	,,	Eastern Bengal.	Spare stone.
20/226 13-3-93		Yorkshire, fine, 24″ × 4″ thick, with trough.	...	...	2 5 0	,,	Burma ...	Without troughs.
24/426 31-7-93		Trough for grindstone, with steel spindle, for steam power, and for a stone 53″ diameter, 8″ thick.	...	...	10 0 0	,,	East Coast.	,,

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate Gross Weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
		Spare parts of—	Tons. cwt. qr. lbs.		£ s. d.			
24/294 22-7-93	Hammer, steam ...	Piston rod of the "best forged scrap iron" for 30 cwt., steam hammer.	0 9 2 11	Each	20 0 0	Each	Oudh and Rohilkhand.	
		Piston rod of the "best forged scrap iron" for 20 cwt., steam hammer.	0 6 3 17	,,	15 5 0	,,		
34/291 21-7-93	Indicators, speed ...	Stroudley's, with piping, pulleys, belting and all necessary gearing.	...	...	12 0 0	Each	East Coast.	
24/140 13-7-93	Indicators, steam ...	Engine (Richard's) each in Mahogany case, fitted with Darkes patent detent and cord adjuster, book of instructions, 4 packets of metallic paper, a complete set of 12 springs for vacuum and pressure, with scales to suit, steel parallel, square, stop cock and tap, screw driver, cylinder cleaner, and 2 spare springs for paper cylinder.	...	...	6 3 1	Each	East Coast.	
25/10 1-8-93		For taking diagrams for locomotives with springs, papers, scales, complete.	...	...	10 11 0	Each	Oudh and Rohilkhand.	
		NOTE.—*Each indicator to be supplied complete with springs and scales suitable for taking diagrams on locomotives working from 10 lbs. up to 180 lbs. per square inch steam pressure, and 600 sheets of metallic paper.*						

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
			Tons. cwt. qr. lbs		£ s. d.			
24/15 — 4-7-93	Ladles, foundry ...	Crane 1 cwt, capacity	...	...	1 13 0	Each	East Coast.	
		„ 1½ „ „	...	...	1 15 0	„		
		„ 2 „ „	...	...	2 1 0	„		
		„ 3 „ „	...	...	2 12 6	„		
		Hand 25 lbs. „	...	...	0 12 0	„		
		„ 50 „ „	...	...	0 18 6	„		
		„ 80 „ „	...	...	1 9 0	„		
29/246 — 28-12-93	Lathes, power, self-acting.	Gap, 10″ centre for wood turning ...	1 10 0 0	Each	107 0 0	Each	East Coast.	
		Note.—*The fast headstock to have a base about 25 inches long and 13 inches wide. The bed to be 10 feet long 18 inches wide over the V's and 12 inches deep.* *The opening in the bed for the loose headstock is not to exceed 5⅜ inches and the gap is to be made to admit work up to 40 inches diameter and 15 inches wide.* *The bed to be fitted with a saddle of a longitudinal length of about 30 inches and of such a length transversely that work 40 inches diameter can be turned on the edge.*							

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
			Tons. cwt. qr. lbs.		£ s. d.			
29/264 — 28-12-93	Lathes, power, self-acting—*concld.*	Lathe, carriers ½″, ¾″, 1″, 1½″, and 2¼″, to be made of forged steel, and filed to shape.	.....	...	0 18 0	Each	East Coast.	
22/28 — 2-5-93		Wheel, 4 feet, adapted to turn without torsional strain of axle, a pair of wheels varying from 2 feet to 4 feet diameter on the tread, on axles up to 8 feet 6 inches long, or to bore two tyres, or to boss or bore two wheels, or to boss or bore a wheel on one face, and to bore a tyre on the other at the same time.	16 0 0 0	Each	460 0 0	„	Oudh and Rohilkhand.	
24/58 — 10-7-93	Lubricators, Needle.	Glass, Lieuvain's, for shafting, small size— „ No. 1 round 2 oz., and No. 2 ...	.....	...	0 0 2¼	Each	North Western.	

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
			Tons. cwt. qr. lbs.		£ s. d.			
18/201 — 26-1-93	Machines.	Horsfall's patent, No. 2 size, suitable for forging iron or steel bolts, nuts, and rivets of the following sizes :—	5 5 1 0	Each	485 0 0	Each	East Coast.	
		Bolts and nuts, with square and hexagon heads, and round necks in sizes from $\frac{3}{8}$″ to $\frac{7}{8}$″ (inclusive) rising by $\frac{1}{8}$″.						
		Rivets, cuphead, $\frac{7}{16}$″, $\frac{9}{16}$″, $\frac{11}{16}$″, $\frac{13}{16}$″ and $\frac{15}{16}$″.						
	Bolt, nut, and rivet making.	*Rivets countersunk heads $\frac{7}{16}$″ and $\frac{15}{16}$″.*						
24/216 — 17-7-93		Horsfall's patent, suitable for forging bolts, nuts and rivets of the following sizes :—	5 8 0 7	,,	500 0 0	,,	Oudh and Rohilkhand.	Similar to the machine supplied under Contract No. 2455 of 1889.
		Bolts and nuts, with square and hexagon heads and round necks in sizes from $\frac{3}{8}$″ to 1″ (inclusive) rising by $\frac{1}{8}$″.						
		Rivets, snap head, cheese head and countersunk head, in sizes, from $\frac{3}{8}$″ to $\frac{7}{8}$″ (inclusive) rising by $\frac{1}{8}$″.						

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

Contracted for in 1893.

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.		£ s. d.			
26/300 — 29-9-93	Drilling ...	Hand, double geared, self-feeding, to bolt on to bench, fitted with table and vice, to swivel round the base. To drill up to 1″ holes. Table 12″ to 15″ diameter.	0 4 0 0	Each	18 10 0	Each	Mu Valley ...	The machine to be similar in every respect to those supplied under Contract No. 2842 of 1880.
		Spare discs for—						
21/4 — 1-4-93		12″ × 1½″ × ¾″ hole	.....	...	0 18 6	Each	Oudh and Rohilkhand.	
22/61 — 5-5-93		12″ × ½″ × ¾″ ,, ...	.....	...	0 6 7	,,	Burma.	
23/443 — 29-6-93	Emery grinding ...	12″ × ½″ × ¾″ ,, ...	.....	...	0 6 8	,,		
27/113 — 16-10-93		12″ × ½″ × ¾″ ,, ...	.....	...	0 6 6	,,		
22/61 — 5-5-93		12″ × ⅜″ × ¾″ ,, ...	.....	...	0 5 1	,,		
23/443 — 29-6-93		12″ × ⅜″ × ¾″ ,, ...	.....	...	0 5 2	,,		
29/246 — 28-12-93		Self-acting, suitable for grinding plane irons up to 30″ long.	0 12 1 0	Each	44 0 0	Each	East Coast	
29/18 — 4-12-93	Grinding ...	Universal surface and periphery grinder suitable for facing nuts, keys, and other small work in iron or brass.	1 0 3 7	,,	62 14 6	,,		Without main shaft drum.

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

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
				Weight.	Unit.	Amount.	Unit.		
		Machines—*contd.*		Tons. cwt. qr. lbs.		£ s. d.			
26/111	8-9-93	Heading ...	Single (Stanley), 6 feet complete, with spare screw and 1st and 2nd motion shaft pinions spare crank shaft. NOTE.—*The machine to be fitted with reversing arrangement to propel the frame, and all the latest improvements.*	5 0 2 0	Each	350 0 0	Each	Warora Colliery.	
29/245	28-12-93	(Log) Frame Saw	With 40 blades, to cut up to 30 inches square, and 30 feet long, with roller feed motion and spare saws. NOTE.—*To be supplied with 130 running feet of steel rails of bridge section, with all necessary screws for fixing the rails to wooden beams; 40 best steel saws with hooks, buckles, tillers and steel keys, fitted complete, and ready for work, and 40 spare saws.*	.....	...	558 0 0	Each	East Coast.	
28/316	24-11-93	Milling, treble	For brasswork, suitable for nut shaping and general work having any number of sides, to have 2 nut mandrils (one for the nuts of ¾ inch bolts) and 2 dozen assorted steel cutters.	1 2 2 0	Each	88 10 0	Each	East Coast.	

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

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
				Weight.	Unit.	Amount.	Unit.		
		Machines—*contd.*		Tons. cwt. qr. lbs.		£ s. d.			
27/126	19-10-93	Panel planing and thicknessing.	Steel cutters or plane iron to suit Robinson's Z 3 improved—	.....	...	1 4 0	Each	Burma.	
24/115	11-7-93	Saw sharpening	Spare discs for— 12″ diameter × ¼″ thick × ¾″ hole	.....	...	0 3 2	Each	North Western.	
			12″ ,, × ⅜″ ,, × ¾″ ,,	.....	...	0 4 9	,,		
			12″ ,, × ⅝″ ,, × ¾″ ,,	.....	...	0 7 9	,,		
22/8	1-5-93	Sand mixer ...	Centrifugal (Schurtzes patent) to be worked by manual labour.	.....	...	31 15 0	Each	Burma.	
23/419	29-6-93	Spring testing ...	Worked by hydraulic pressure, capable of testing locomotive or carriage springs up to 6 feet in length and up to a pressure of 20 tons.	2 12 1 0	Each	153 0 0	Each	Burma.	
20/523	30-3-93	Tin working ...	Circle cutting, tinsmith's No. 1 size, to cut circles 2½″ to 14″ diameter.	.....	...	2 0 3	Each	Burma.	
			Shears, guillotine squaring, for foot power, size of knives 20⅜″ long.	.....	...	5 7 6	,,		

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
	Machines—*contd.*		Tons. cwt. qr. lbs.		£ s. d.			
26/111 — 8-9-93	Heading ...	Single (Stanley), 6 feet complete, with spare screw and 1st and 2nd motion shaft pinions spare crank shaft. NOTE.—*The machine to be fitted with reversing arrangement to propel the frame, and all the latest improvements.*	5 0 2 0	Each	350 0 0	Each	Warora Colliery.	
29/246 — 28-12-93	(Log) Frame Saw	With 40 blades, to cut up to 30 inches square, and 30 feet long, with roller feed motion and spare saws. NOTE.—*To be supplied with 130 running feet of steel rails of bridge section, with all necessary screws for fixing the rails to wooden beams; 40 best steel saws with hooks, buckles, tillers and steel keys, fitted complete, and ready for work, and 40 spare saws.*	.....	...	558 0 0	Each	East Coast.	
28/316 — 24-11-93	Milling, treble	For brasswork, suitable for nut shaping and general work having any number of sides, to have 2 nut mandrils (one for the nuts of ¾ inch bolts) and 2 dozen assorted steel cutters.	1 2 2 0	Each	88 10 0	Each	East Coast.	

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
	Machines—*contd.*		Tons. cwt. qr. lbs.		£ s. d.			
27/126 — 19-10-93	Panel planing and thicknessing.	Steel cutters or plane iron to suit Robinson's Z 3 improved—	.....	...	1 4 0	Each	Burma.	
24/115 — 11-7-93	Saw sharpening	Spare discs for— 12″ diameter × ¼″ thick × ¾″ hole	.....	...	0 3 2	Each	North Western.	
		12″ „ × ⅜″ „ × ¾″ „	.....	...	0 4 9	„		
		12″ „ × ⅝″ „ × ¾″ „	.....	...	0 7 9	„		
22/8 — 1-5-93	Sand mixer ...	Centrifugal (Schurtzes patent) to be worked by manual labour.	.....	...	31 15 0	Each	Burma.	
23/419 — 29-6-93	Spring testing ...	Worked by hydraulic pressure, capable of testing locomotive or carriage springs up to 6 feet in length and up to a pressure of 20 tons.	2 12 1 0	Each	153 0 0	Each	Burma.	
20/523 — 30-3-93	Tin working ...	Circle cutting, tinsmith's No. 1 size, to cut circles 2½″ to 14″ diameter.	.....	...	2 0 3	Each	Burma.	
		Shears, guillotine squaring, for foot power, size of knives 20⅜″ long.	.....	...	5 7 6	„		

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

Contracted for in 1893.

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.*			
24/21 15-7-93	Trimmers ...	Pattern makers (Fox's patent) No. 4A....	0 0 0 24	Each	6 6 0	Each	Burma.	
19/65 17-2-93	Weighing locomotive.	(Ehrhardt's) for weighing broad gauge locomotives, with eight wheels; with two levers, graduated for weighing from 16 to 35 cwt. and from 35 cwt. to 7½ tons. respectively.	0 13 0 20	Set	212 0 0	Set	East Coast ...	One set consists of 8 machines.
26/251 22-9-93		(Ehrhardt's) for weighing metre gauge locomotives and the bogies of O class engines; with double dial for weighing from 16 to 35 cwts. and from 35 cwts. to 7½ tons. NOTE.—*Machine to be suitable for a 41¼ lb. Vignole's rail.*	0 13 0 20	„	188 0 0	„	Mu Valley ...	
26/311 29-9-93	Mill, paint mixing	With fast and loose pulleys, for working from shafting, height about 19″, weight about 60lbs., delivery per 8 hours about 1½ cwt. 80 to 90 revolutions per minute, diameter of the funnel at top about 8″, and height of the funnel about 7½″.	.....	...	4 2 6	Each	Mu Valley.	
26/160 14-9-93	Shafts ...	Steel, for No. 1 pit-pumping engines ...	0 12 3 18	Each	15 10 0	Each	Warora Colliery.	

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
			Tons. cwt. qr. lbs.		£ *s.* *d.*			
24/67 10-7-93	Surface, or levelling plates, Engineers.	12″ × 12″	.....	...	2 6 0	Each	East Coast.	
		20″ × 8″	.....	...	2 8 0	„		
		36″ × 8″	.....	...	4 7 0	„		
		48″ × 24″	.....	...	14 6 0	„		
		NOTE.—To be well-ribbed at back, free from honeycomb, and planed perfectly true on the face and four sides.						
22/133 12-5-93	Valves (Steam) stop	Gun-metal, 1″ with two flanges, gun-metal hand wheel, and glands packed with asbestos.	.....	...	0 13 6	Each	Umaria Colliery.	
20/376 21-3-93	Vices, bench ...	Parallel wrought-iron— 2″	.....	...	1 2 6	Each	Eastern Bengal.	
		3″	.....	...	1 10 0	„		
		4″	.....	...	1 12 0	„		

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

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
				Weight.	Unit.	Amount.	Unit.		
		Machines—*concld.*		Tons. cwt. qr. lbs.		£ s. d.			
24/21	15-7-93	Trimmers ...	Pattern makers (Fox's patent) No. 4A....	0 0 0 24	Each	6 6 0	Each	Burma.	
19/65	17-2-93	Weighing locomotive.	(Ehrhardt's) for weighing broad gauge locomotives, with eight wheels; with two levers, graduated for weighing from 16 to 35 cwt. and from 35 cwt. to 7½ tons, respectively.	0 13 0 20	Set	212 0 0	Set	East Coast ...	One set consists of 8 machines.
26/251	22-9-93		(Ehrhardt's) for weighing metre gauge locomotives and the bogies of O class engines; with double dial for weighing from 16 to 35 cwts. and from 35 cwts. to 7½ tons. NOTE.—*Machine to be suitable for a 41¼ lb. Vignole's rail.*	0 13 0 20	,,	188 0 0	,,	Mu Valley ...	
26/311	29-9-93	Mill, paint mixing	With fast and loose pulleys, for working from shafting, height about 19″, weight about 60lbs., delivery per 8 hours about 1½ cwt. 80 to 90 revolutions per minute, diameter of the funnel at top about 8″, and height of the funnel about 7½″.	.....	...	4 2 6	Each	Mu Valley.	
26/160	14-9-93	Shafts ...	Steel, for No. 1 pit-pumping engines ...	0 12 3 18	Each	15 10 0	Each	Warora Colliery.	

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

Contracted for in 1893.

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.			
24/67	10-7-93	Surface, or levelling plates, Engineers.	12″ × 12″	.....	...	2 6 0	Each	East Coast.	
			20″ × 8″	.....	...	2 8 0	,,		
			36″ × 8″	.....	...	4 7 0	,,		
			48″ × 24″	.....	...	14 6 0	,,		
			NOTE.—To be well-ribbed at back, free from honeycomb, and planed perfectly true on the face and four sides.						
22/133	12-5-93	Valves (Steam) stop	Gun-metal, 1″ with two flanges, gun-metal hand wheel, and glands packed with asbestos.	.....	...	0 13 6	Each	Umaria Colliery.	
20/376	21-3-93	Vices, bench ...	Parallel wrought-iron—						
			2″	.....	...	1 2 6	Each	Eastern Bengal.	
			3″	.....	...	1 10 0	,,		
			4″	.....	...	1 12 0	,,		

[*General Distribution.*]

Circular No. 8.

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-UJJAIN 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, BEZWADA-MADRAS RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, NORTH WESTERN RAILWAY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List Class C—Workshop Machinery and Heavy Tools, for 1893.

Simla, the 19th 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 C—State railway stores, "Workshop Machinery and Heavy 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 C stores imported from England to the several ports in India for State railways of both gauges during 1893, is prefixed to the Rate List.

3. In order to arrive at the total cost of Class C 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 rates per ton for entire sea-freight on Class C stores imported from England to the several ports during 1893.

2. Rate List, Class C—Workshop Machinery and Heavy Tools for 1893.

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: 2644 W. dy 19th October 1894.

Communicated to
Officers of the Public Works
Dept: for information.
(Sd) JP
L

S. Engrs.
L.A
Sup't. P.P.
Ex. P.W.A
with copies of list.

ess, Simla.—No. 237 P. W. D.—27-9-94.—951

Enclosure to Director General of Railways' Circular No. 8 of 1894.

RATE LIST.

CLASS C.

WORKSHOP MACHINERY AND HEAVY TOOLS

FOR 1893.

Enclosure to Director General of Railways' Circular No. 8 of 1894.

RATE LIST.

CLASS C.

WORKSHOP MACHINERY AND HEAVY TOOLS

FOR 1893.

Enclosure to Director General of Railways' Circular No. 8 of 1894.

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 1893.

Class of stores.	Kurrachee.	Bombay.	Coconada or Vizagapatam.	Calcutta.	Rangoon.	Remarks.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	
C.—Workshop Machinery and Heavy Tools ...	20 0	16 3	22 4	22 11	22 6	

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

Contracted for in 1893.

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.			
18/101	11-1-93	Anvils.	Smith's, or pike, measuring 2′ 11″ from end to end, steel faced.	0 3 0 0	Each	2 16 0	Each	Oudh and Rohilkhand.	
27/16	2-10-93		Smith's, or pike, and arch, steel faced ...	0 5 0 0	„	4 15 0	„	Mu Valley.	
20/527	30-3-93	Calorimeter.	Or fuel testing apparatus (Thomson's patent) NOTE.—*The Calorimeter, to consist of combustion cylinder, spring clutch, base, 6 cylindrical copper furnaces, 2 short cylindrical copper furnaces, glass water cylinder, thermometer, scales with gramme weights, iron pestle and mortar, sieve, canister for oxygen mixture, all in mahogany box, french polished and lined with cloth, with lock and key.*	.....	...	6 6 0	Each	North Western.	
24/201	15-7-93	Engines, fire.	Hand, complete, with 300 feet hose, canvas, delivery, and 26 feet hose, leather, suction. To draw water either by its own cistern or by suction, and to have two 6-inch gun-metal pumps with 8-inch stroke.	1 0 2 8	Each	122 0 0	Each	East Coast.	
25/172	11-8-93		Do. do. do.	1 6 3 4	„	121 10 0	„	Mu Valley.	

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

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
				Tons. cwt. qr. lbs.		£ s. d.			
23/400	28-6-93	Engines, Stationary	Compound, high pressure of 16 nominal horse power, mounted upon a *w. i.* or steel framing of channel section, underneath a locomotive type multitubular-boiler, with duplicate parts, with all necessary mountings, pipes, valves, bolts, etc., for connecting and fixing it ready for work in India. *Particulars of stationary engine.* *Diameter of high pressure cylinder,* 8 *inches* „ *low* „ „ 12¾ „ *Length of piston stroke* 14 „ *Diameter of crank shaft journals* 4¼ „ *Length of boiler barrel* 7 *feet* 11 „ *Diameter of* „ „ 3 *feet* 2⅛ „ *Length of fire box* 4 *feet* 3 „ *Width of* „ 3 *feet* 3 „	12 19 3 0	Each	449 0 0	Each	Jorhat ...	Includes price of 3 sets tracings and 6 copies of photographs.
24/295	22-7-93		*Spare parts of—* Crank shaft, steel, for wheel shop stationary engine.	0 6 1 20	„	28 11 3	„	Oudh and Rohilkhand.	
25/138	5-8-93	Forges.	Smiths, with hearths, 4 feet by 4 feet complete, with 15 feet chimneys.	1 9 3 5	Each	25 17 0	Each	East-Coast.	

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

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
				Tons. cwt. qr. lbs.		£ s. d.			
24/236	19-7-93	Furnaces.	"Piats" brass melting, each complete with fan (size N. to hold Morgan's 90 lbs. crucibles).	1 0 0 17	Each	59 18 0	Each	North Western...	Includes cost of casks, packing and delivery, etc.
24/184	15-7-93	Gauges, pressure.	Steam, to register 200 lbs. per square inch, 6″ dial, each with cock and syphon.	...	...	1 4 0	Each	Umaria-Colliery	
21/259	26-4-93	Gauges, test.	Hydraulic, with 10″ dial fitted with both actual and maximum pressure indicator hand, to read from 0 to 2,000 lbs. per square inch, and graduated to read 100 lbs.	...	...	5 0 0	Each	Burma ...	Required for tube and steam pipe testing machine.
26/281	27-9-93		Do. do. do. ...	...	...	5 0 0	„	Mu Valley.	„
18/140	13-1-93	Grindstones.	Newcastle post, No. 4, 6 feet × 10″, with hole 4″ × 4″.	...	...	9 17 0	Each	Oudh and Rohilkhand.	For grinding files.
21/40	6-4-93		Newcastle post, No. 3, 48″ × 8″, centre hole 3″ square, medium grit.	...	...	3 6 0	„	Burma ...	Without trough.
22/16	1-5-93		Newcastle post, No. 3, 48″ × 8″, centre hole 3″ square, medium grit.	...	...	3 6 0	„	Do.	„

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

Contracted for in 1893.

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.			
23/422 29-6-93	Grindstones—*concld.*	Newcastle post, No. 3, 48″ × 8″, centre hole 3″ square, medium grit.	...	...	3 6 0	Each	Burma ...	Without trough.
27/125 19-10-93		Newcastle post, No. 3, 48″ × 8″, centre hole 3″ square, medium grit.	...	...	2 13 0	„	Do.	„
27/47 6-10-93		Newcastle post, No. 3, 53″ × 8″, centre hole 3″ × 3″.	...	...	5 8 0	„	East Coast.	„
29/99 14-12-93		Best Ayrshire, coarse, 60″ × 8″, with square hole 2¼″.	...	...	3 13 8	„	Burma.	„
20/119 8-3-93		Yorkshire, fine, 30″ diameter, × 4″ thick, centre hole 1¼″ diameter.	...	...	4 10 0	„	Eastern Bengal.	Spare stone.
20/226 13-3-93		Yorkshire, fine, 24″ × 4″ thick, with trough.	...	...	2 5 0	„	Burma ...	Without troughs.
24/426 31-7-93		Trough for grindstone, with steel spindle, for steam power, and for a stone 53″ diameter, 8″ thick.	...	...	10 0 0	„	East Coast.	„

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
		Spare parts of—	Tons. cwt. qr. lbs.		£ s. d.			
24/294 22-7-93	Hammer, steam ...	Piston rod of the "best forged scrap iron" for 30 cwt., steam hammer.	0 9 2 11	Each	20 0 0	Each	Oudh and Rohilkhand.	
		Piston rod of the "best forged scrap iron" for 20 cwt., steam hammer.	0 6 3 17	„	15 5 0	„		
24/291 21-7-93	Indicators, speed ...	Stroudley's, with piping, pulleys, belting and all necessary gearing.	...	...	12 0 0	Each	East Coast.	
24/140 13-7-93	Indicators, steam ...	Engine (Richard's) each in Mahogany case, fitted with Darkes patent detent and cord adjuster, book of instructions. 4 packets of metallic paper, a complete set of 12 springs for vacuum and pressure, with scales to suit, steel parallel, square, stop cock and tap, screw driver, cylinder cleaner, and 12 spare springs for paper cylinder.	...	...	6 3 1	Each	East Coast.	
25/10 1-8-93		For taking diagrams for locomotives with springs, papers, scales, complete. NOTE.—*Each indicator to be supplied complete with springs and scales suitable for taking diagrams on locomotives working from 10 lbs. up to 180 lbs. per square inch steam pressure, and 600 sheets of metallic paper.*	...	...	10 11 0	Each	Oudh and Rohilkhand.	

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
			Tons. cwt. qr. lbs.		£ s. d.			
24/15 4-7-93	Ladles, foundry ...	Crane 1 cwt, capacity	...	...	1 13 0	Each	East Coast.	
		„ 1½ „ „	...	...	1 15 0	„		
		„ 2 „ „	...	...	2 1 0	„		
		„ 3 „ „	...	...	2 12 6	„		
		Hand 25 lbs. „	...	...	0 12 0	„		
		„ 50 „ „	...	...	0 18 6	„		
		„ 80 „ „	...	...	1 9 0	„		
29/246 28-12-93	Lathes, power, self-acting.	Gap, 16″ centre for wood turning ...	1 10 0 0	Each	107 0 0	Each	East Coast.	
		NOTE.—*The fast headstock to have a base about 25 inches long and 13 inches wide. The bed to be 10 feet long 18 inches wide over the V's and 12 inches deep.* *The opening in the bed for the loose headstock is not to exceed 5⅜ inches and the gap is to be made to admit work up to 40 inches diameter and 15 inches wide.* *The bed to be fitted with a saddle of a longitudinal length of about 30 inches and of such a length transversely that work 40 inches diameter can be turned on the edge.*						

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
			Tons. cwt. qr. lbs.		£ s. d.			
29/264 28-12-93	Lathes, power, self-acting—*concld.*	Lathe, carriers ½″, ¾″, 1″, 1½″, and 2¼″, to be made of forged steel, and filed to shape.	.....	...	0 18 0	Each	East Coast.	
22/28 2-5-93		Wheel, 4 feet, adapted to turn without torsional strain of axle, a pair of wheels varying from 2 feet to 4 feet diameter on the tread, on axles up to 8 feet 6 inches long, or to bore two tyres, or to boss or bore two wheels, or to boss or bore a wheel on one face, and to bore a tyre on the other at the same time.	16 0 0 0	Each	460 0 0	„	Oudh and Rohilkhand.	
24/58 10-7-93	Lubricators, Needle.	Glass, Lieuvain's, for shafting, small size— „ No. 1 round 2 oz., and No. 2 ...	.....	...	0 0 2¼	Each	North Western.	

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

Contracted for in 1893.

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.			
24/15 — 4-7-93	Ladles, foundry ...	Crane 1 cwt, capacity	...	...	1 13 0	Each	East Coast.	
		„ 1½ „ „	...	...	1 15 0	„		
		„ 2 „ „	...	...	2 1 0	„		
		„ 3 „ „	...	...	2 12 6	„		
		Hand 25 lbs. „	...	...	0 12 0	„		
		„ 50 „ „	...	...	0 18 6	„		
		„ 80 „ „	...	...	1 9 0	„		
29/246 — 28-12-93	Lathes, power, self-acting.	Gap, 10″ centre for wood turning ...	1 10 0 0	Each	107 0 0	Each	East Coast.	
		NOTE.—*The fast headstock to have a base about 25 inches long and 13 inches wide. The bed to be 10 feet long 18 inches wide over the V's and 12 inches deep.*						
		The opening in the bed for the loose headstock is not to exceed 5⅜ inches and the gap is to be made to admit work up to 40 inches diameter and 15 inches wide.						
		The bed to be fitted with a saddle of a longitudinal length of about 30 inches and of such a length transversely that work 40 inches diameter can be turned on the edge.						

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

Contracted for in 1893.

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.			
29/264 — 28-12-93	Lathes, power, self-acting—*concld.*	Lathe, carriers ½″, ¾″, 1″, 1½″, and 2¼″, to be made of forged steel, and filed to shape.	.....	...	0 18 0	Each	East Coast.	
22/28 — 2-5-93		Wheel, 4 feet, adapted to turn without torsional strain of axle, a pair of wheels varying from 2 feet to 4 feet diameter on the tread, on axles up to 8 feet 6 inches long, or to bore two tyres, or to boss or bore two wheels, or to boss or bore a wheel on one face, and to bore a tyre on the other at the same time.	16 0 0 0	Each	460 0 0	„	Oudh and Rohilkhand.	
24/58 — 10-7-93	Lubricators, Needle.	Glass, Lieuvain's, for shafting, small size— „ No. 1 round 2 oz., and No. 2 ...	.....	...	0 0 2¼	Each	North Western.	

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
			Tons. cwt. qr. lbs.		£ s. d.			
18/301 — 26-1-93	Machines.	Horsfall's patent, No. 2 size, suitable for forging iron or steel bolts, nuts, and rivets of the following sizes :—	5 5 1 0	Each	485 0 0	Each	East Coast.	
		Bolts and nuts, with square and hexagon heads, and round necks in sizes from $\frac{3}{8}$″ to $\frac{7}{8}$″ (inclusive) rising by $\frac{1}{8}$″.						
		Rivets, cuphead, $\frac{7}{16}$″, $\frac{9}{16}$″, $\frac{11}{16}$″, $\frac{13}{16}$″ and $\frac{15}{16}$″.						
	Bolt, nut, and rivet making.	*Rivets countersunk heads $\frac{7}{16}$″ and $\frac{15}{16}$″.*						
24/216 — 17-7-93		Horsfall's patent, suitable for forging bolts, nuts and rivets of the following sizes :—	5 8 0 7	,,	500 0 0	,,	Oudh and Rohilkhand.	Similar to the machine supplied under Contract No. 2455 of 1889.
		Bolts and nuts, with square and hexagon heads and round necks in sizes from $\frac{3}{8}$″ to 1″ (inclusive) rising by $\frac{1}{8}$″.						
		Rivets, snap head, cheese head and countersunk head, in sizes, from $\frac{3}{8}$″ to $\frac{7}{8}$″ (inclusive) rising by $\frac{1}{8}$″.						

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

Contracted for in 1893.

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.		£ s. d.			
26/300 — 29-9-93	Drilling ...	Hand, double geared, self-feeding, to bolt on to bench, fitted with table and vice, to swivel round the base. To drill up to 1″ holes. Table 12″ to 15″ diameter.	0 4 0 0	Each	18 10 0	Each	Mu Valley ...	The machine to be similar in every respect to those supplied under Contract No. 2842 of 1889.
		Spare discs for—						
21/4 — 1-4-93		12″ × 1½″ × ¾″ hole	.....	...	0 18 6	Each	Oudh and Rohilkhand.	
22/61 — 5-5-93		12″ × ½″ × ¾″ ,, ...	.....	...	0 6 7	,,	Burma.	
23/443 — 29-6-93	Emery grinding ...	12″ × ½″ × ¾″ ,, ...	.....	...	0 6 8	,,		
27/113 — 16-10-93		12″ × ½″ × ¾″ ,, ...	.....	...	0 6 6	,,		
22/61 — 5-5-93		12″ × ⅜″ × ¾″ ,, ...	.....	...	0 5 1	,,		
23/443 — 29-6-93		12″ × ⅜″ × ¾″ ,, ...	.....	...	0 5 2	,,		
29/246 — 28-12-93	Grinding ...	Self-acting, suitable for grinding plane irons up to 30″ long.	0 12 1 0	Each	44 0 0	Each	East Coast	Without main shaft drum.
29/18 — 4-12-93		Universal surface and periphery grinder suitable for facing nuts, keys, and other small work in iron or brass.	1 0 3 7	,,	62 14 6	,,		

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
	Machines—*contd.*							
26/111 — 8-9-93	Heading ...	Single (Stanley), 6 feet complete, with spare screw and 1st and 2nd motion shaft pinions spare crank shaft. NOTE.—*The machine to be fitted with reversing arrangement to propel the frame, and all the latest improvements.*	Tons. cwt. qr. lbs. 5 0 2 0	Each	£ s. d. 350 0 0	Each	Warora Colliery.	
29/246 — 28-12-93	(Log) Frame Saw	With 40 blades, to cut up to 30 inches square, and 30 feet long, with roller feed motion and spare saws. NOTE.—*To be supplied with 130 running feet of steel rails of bridge section, with all necessary screws for fixing the rails to wooden beams; 40 best steel saws with hooks, buckles, tillers and steel keys, fitted complete, and ready for work, and 40 spare saws.*	.....	...	558 0 0	Each	East Coast.	
28/316 — 24-11-93	Milling, treble	For brasswork, suitable for nut shaping and general work having any number of sides, to have 2 nut mandrils (one for the nuts of ¾ inch bolts) and 2 dozen assorted steel cutters.	1 2 2 0	Each	88 10 0	Each	East Coast.	

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight.		Rate—Free on board.		For what railway.	Remarks.
			Weight.	Unit.	Amount.	Unit.		
	Machines—*contd.*							
27/126 — 19-10-93	Panel planing and thicknessing.	Steel cutters or plane iron to suit Robinson's Z 3 improved—	Tons. cwt. qr. lbs.	...	£ s. d. 1 4 0	Each	Burma.	
24/115 — 11-7-93	Saw sharpening	Spare discs for— 12″ diameter × ¼″ thick × ¾″ hole	.....	...	0 3 2	Each	North Western.	
		12″ „ × ⅜″ „ × ¾″ „	.....	...	0 4 9	„		
		12″ „ × ⅝″ „ × ¾″ „	.....	...	0 7 9	„		
22/8 — 1-5-93	Sand mixer ...	Centrifugal (Schurtzes patent) to be worked by manual labour.	.....	...	31 15 0	Each	Burma.	
23/419 — 29-6-93	Spring testing ...	Worked by hydraulic pressure, capable of testing locomotive or carriage springs up to 6 feet in length and up to a pressure of 20 tons.	2 12 1 0	Each	153 0 0	Each	Burma.	
20/523 — 30-3-93	Tin working ...	Circle cutting, tinsmith's No. 1 size, to cut circles 2½″ to 14″ diameter.	.....	...	2 0 3	Each	Burma.	
		Shears, guillotine squaring, for foot power, size of knives 20⅜″ long.	.....	...	5 7 6	„		

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

Contracted for in 1893.

Contract number and date.		Articles.	Details.	Approximate Gross Weight.		Rate—Free on Board.		For what railway.	Remarks.
				Weight.	Unit.	Amount.	Unit.		
		Machines—*concld.*		Tons. cwt. qr. lbs.		£ s. d.			
24/21	15-7-93	Trimmers ...	Pattern makers (Fox's patent) No. 4A....	0 0 0 24	Each	6 6 0	Each	Burma.	
19/65	17-2-93	Weighing locomotive.	(Ehrhardt's) for weighing broad gauge locomotives, with eight wheels; with two levers, graduated for weighing from 16 to 35 cwt. and from 35 cwt. to 7¼ tons, respectively.	0 13 0 20	Set	212 0 0	Set	East Coast ...	One set consists of 8 machines.
26/251	22-9-93		(Ehrhardt's) for weighing metre gauge locomotives and the bogies of O class engines; with double dial for weighing from 16 to 35 cwts. and from 35 cwts. to 7¼ tons. NOTE.—*Machine to be suitable for a 41¼ lb. Vignole's rail.*	0 13 0 20	,,	188 0 0	,,	Mu Valley ...	
26/311	29-9-93	Mill, paint mixing	With fast and loose pulleys, for working from shafting, height about 19″, weight about 60lbs., delivery per 8 hours about 1½ cwt. 80 to 90 revolutions per minute, diameter of the funnel at top about 8″, and height of the funnel about 7½″.	.....	...	4 2 6	Each	Mu Valley.	
26/160	14-9-93	Shafts ...	Steel, for No. 1 pit-pumping engines ...	0 12 3 18	Each	15 10 0	Each	Warora Colliery.	

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

Contracted for in 1893.

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.			
24/67	10-7-93	Surface, or levelling plates, Engineers.	12″ × 12″	.....	...	2 6 0	Each	East Coast.	
			20″ × 8″	.....	...	2 8 0	,,		
			36″ × 8″	.....	...	4 7 0	,,		
			48″ × 24″	.....	...	14 6 0	,,		
			NOTE.—To be well-ribbed at back, free from honeycomb, and planed perfectly true on the face and four sides.						
22/133	12-5-93	Valves (Steam) stop	Gun-metal, 1″ with two flanges, gun-metal hand wheel, and glands packed with asbestos.	.....	...	0 13 6	Each	Umaria Colliery.	
20/376	21-3-93	Vices, bench ...	Parallel wrought-iron—						
			2″	.....	...	1 2 6	Each	Eastern Bengal.	
			3″	.....	...	1 10 0	,,		
			4″	.....	...	1 12 0	,,		

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

Contracted for in 1893.

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.			
24/21 15-7-93	Trimmers ...	Pattern makers (Fox's patent) No. 4A....	0 0 0 24	Each	6 6 0	Each	Burma.	
19/65 17-2-93	Weighing locomotive.	(Ehrhardt's) for weighing broad gauge locomotives, with eight wheels; with two levers, graduated for weighing from 16 to 35 cwt. and from 35 cwt. to 7½ tons, respectively.	0 13 0 20	Set	212 0 0	Set	East Coast ...	One set consists of 8 machines.
26/251 22-9-93	Weighing locomotive.	(Ehrhardt's) for weighing metre gauge locomotives and the bogies of O class engines; with double dial for weighing from 16 to 35 cwts. and from 35 cwts. to 7½ tons. NOTE.—*Machine to be suitable for a 41¼ lb. Vignole's rail.*	0 13 0 20	,,	188 0 0	,,	Mu Valley ...	One set consists of 8 machines.
26/311 29-9-93	Mill, paint mixing	With fast and loose pulleys, for working from shafting, height about 19″, weight about 60lbs., delivery per 8 hours about 1½ cwt. 80 to 90 revolutions per minute, diameter of the funnel at top about 8″, and height of the funnel about 7½″.	.....	...	4 2 6	Each	Mu Valley.	
26/160 14-9-93	Shafts ...	Steel, for No. 1 pit-pumping engines ...	0 12 3 18	Each	15 10 0	Each	Warora Colliery.	

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

Contracted for in 1893.

Contract number and date.	Articles.	Details.	Approximate gross weight. Weight.	Unit.	Rate—Free on board. Amount.	Unit.	For what railway.	Remarks.
			Tons. cwt. qr. lbs.		£ s. d.			
24/67 10-7-93	Surface, or levelling plates, Engineers.	12″ × 12″	.....	...	2 6 0	Each	East Coast.	
		20″ × 8″	.....	...	2 8 0	,,		
		36″ × 8″	.....	...	4 7 0	,,		
		48″ × 24″	.....	...	14 6 0	,,		
		NOTE.—To be well-ribbed at back, free from honeycomb, and planed perfectly true on the face and four sides.						
22/133 12-5-93	Valves (Steam) stop	Gun-metal, 1″ with two flanges, gun-metal hand wheel, and glands packed with asbestos.	.....	...	0 13 6	Each	Umaria Colliery.	
20/376 21-3-93	Vices, bench ...	Parallel wrought-iron— 2″	.....	...	1 2 6	Each	Eastern Bengal.	
		3″	.....	...	1 10 0	,,		
		4″	.....	...	1 12 0	,,		

[*General Distribution.*]

Circular No. 8.

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-UJJAIN 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, BEZWADA-MADRAS RAILWAY SURVEY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, NORTH WESTERN RAILWAY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List Class C—Workshop Machinery and Heavy Tools, for 1893.

Simla, the 19th September 1

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 1893.

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 1893, is prefixed to the Rate List.

3. In order to arrive at the total cost of Class C 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 rates per ton for entire sea-freight on Class C stores imported from England to the several ports during 1893.

2. Rate List, Class C—Workshop Machinery and Heavy Tools for 1893.

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

The Secretaries to the Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, 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.

No: 2644 dy 19th October 1894

Communicated to Officers of the Public Works Dept. for information.

(Sd) JP Ls.

To

THE

S. Engrs.
C.A
S of L. P P
Exc: Plns.a
with Copies of list.

C. C. Press, Simla.—No. 937 P. W. D.—27-9-94.—951