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PWD துறை

167

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45 Sheets

ஆணை. கா-1—15,000—15-6-87.

(3)

Enclosure to Director General of Railways' Circular No. 2 of 1892.

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# RATE LIST.

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## ROLLING STOCK.

FOR 1890.

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(1) Complete Ironwork for vehicles—

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Enclosure No. 1 to Director General of Railway's Circular No. 2 of 1892.

*Statement showing the latest average Rates per ton for entire Sea-freight on Locomotive and Rolling-stock materials sent out from England to the several ports in India for State Railways of both gauges.*

| Description of materials. | Port of Bombay. | Port of Calcutta. | Port of Karachi. | Port of Rangoon. | Remarks. |
|---|---|---|---|---|---|
| | *s.* *d.* | *s.* *d.* | *s.* *d.* | £ | |
| Engines, locomotive, complete ... ... | * | 65 0 (B.G.) | 51 3 (B.G.) | 100 Each M.G. | * No engines received. |
| | | | | *s.* *d.* | |
| Engines, locomotive, spare parts of—... ... | 21 3 | 20 4 | 42 0 | 35 0 | These rates of sea-freight may be taken for both broad and metre gauge materials. |
| Coaching stock, underframe, and body ironwork for— | 33 0 | 30 8 | 30 6 | 35 0 | |
| Goods stock, underframe, and body ironwork for— | 33 0 | 25 0 | 27 3 | 40 0 | |
| Wheels and axles, axle-boxes, springs, couplings, &c. | 17 6 | 18 6 | 17 5 | 27 0 | |
| Other carriage and wagon fittings ... ... | Five per cent. | on the original cost for all parts. | | ... | |
| Cranes, accident ... ... ... | † | 27 6 | 40 5 | 43 0 | † None received. |

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# CLASS E.

## ROLLING STOCK.

### (*a*).—LOCOMOTIVES.

CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a*).—LOCOMOTIVES.

5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 4190 | 16-12-90 | Engines, Locomotive—complete. | Compound, six wheels (coupled) with a two-wheeled Bissel truck in front, inside cylinders, 20 inches and 28 inches diameter, inside frames, and separate tenders on two four-wheeled bogie trucks, makers Neilson & Co. | 2,875* | 0 | 0 | Each. | *Engine ... £2,255 0 0<br>Tender ... 620 0 0<br>Total delivered in the port of London 2,875 0 0 |
| | | | One set of duplicates for above ... ... ... ... | 2,709† | 10 | 0 | Set. | †For details see Appendix A., pages 35 and 36. |
| | | | General dimensions of the engines and tenders are as follow:— | | | | | |
| | | | *Engine.* | | | | | |
| | | | Diameter of H. P. Cylinders ... ... 20 inches. | | | | | |
| | | | „ L. P. „ ... ... 28 „ | | | | | |
| | | | Length of stroke ... ... ... 26 „ | | | | | |
| | | | Diameter of coupled wheels ... ... 5 feet 1½ „ | | | | | |
| | | | „ of Bissel „ ... ... 2 „ 10 „ | | | | | |
| | | | Coupled wheel base ... ... ... 14 „ 6 „ | | | | | |
| | | | Total wheel base ... ... ... 20 „ 7½ „ | | | | | |
| | | | Working steam pressure per square inch ... 180 lbs. | | | | | |
| | | | Heating surface external tubes ... ... 1,119 sq. feet. | | | | | |
| | | | „ „ fire box ... ... ... 113 „ | | | | | |
| | | | Total heating surface ... ... ... 1,232 „ | | | | | |
| | | | Grate area ... ... ... ... 22 „ | | | | | |
| | | | Number of wheels (two four-wheeled bogies) ... 8 | | | | | |
| | | | Wheel base ... ... ... ... 18 feet | | | | | |
| | | | Diameter of wheels ... ... ... 2 feet 10 inches. | | | | | |
| | | | Capacity of tank ... ... ... 3,400 gallons. | | | | | |
| | | | Fuel space ... ... ... 200 c. ft. | | | | | |

CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a*).—LOCOMOTIVES—*contd.*

5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | | Engines, Locomotive—spare parts of—contd. | Axles | Bogie, for H. class engines ... ... ... ... | 4 | 10 | 8 | Each. | |
| | | | | „ „ H. E. class engines ... ... ... ... | 5 | 1 | 1 | „ | |
| 3267 | 10-12-90 ... | | | „ „ L. „ „ ... ... ... ... | 5 | 2 | 6 | „ | |
| | | | | Engine, for H. „ „ ... ... ... ... | 7 | 15 | 6 | „ | |
| | | | | „ „ H. E. „ „ ... ... ... ... | 8 | 7 | 8 | „ | |
| | | | | „ „ L. „ „ ... ... ... ... | 8 | 17 | 9 | „ | |
| 4174 | 1-12-90 ... | | | Leading, for K. & S. engines, turned and finished except on wheel seats ... | 9 | 13 | 6 | „ | |
| | | | | Tender, twin ... ... ... ... ... ... | 9 | 5 | 3 | „ | |
| | | | | „ for H. E. class engines ... ... ... ... | 6 | 14 | 8 | „ | |
| 3267 | 10-12-90 ... | | | „ „ L. „ „ ... ... ... ... | 8 | 0 | 11 | „ | |
| | | | | „ „ L. „ „ ... ... ... ... | 7 | 14 | 6 | „ | |

CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a*).—LOCOMOTIVES—*contd.*

5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| 3250 | 17-12-90 ... | Engines, Locomotive—spare parts of—contd. | Beams ... | Buffer, engine, 9′ 6″ × 1′ 2″ × 1½″, for L. class engine ... ... | 40 | 0 | 0 | Each. | |
| 4042 | 28-10-90 ... | | Boilers. | Locomotive, complete, with internal steam pipes, fire bars and bearers, for H. class engines. | 638 | 0 | 0 | Each. | |
| | | | | Locomotive, complete, with internal steam pipes, fire bars and bearers, for K. and S. class engines. | 695 | 0 | 0 | „ | |
| 3974 | 21-10-90 ... | | Brake gear. | Automatic, vacuum, for engine, complete (similar to that supplied on contract No. 2874). | 80 | 0 | 0 | Set. | *Vide* E. Class Rate List for 1889, page 38. |
| | | | | *Automatic Vacuum, for Engines, spare parts of—* | | | | | |
| 4022 | 24-10-90 ... | | | Hosepipe, with couplings 2″ × 18″ ... ... ... ... | 1 | 8 | 0 | Each. | Between engine and tender. |
| | | | | „ with ball couplings 1″ × 18″... ... ... ... | 1 | 12 | 0 | „ | |
| | | | | „ ¾″ × 36″ from cylinder to train pipe connections ... ... | 0 | 8 | 0 | „ | |
| | | | | „ ½″ × 18″ from engine cylinder to pipe ... ... ... | 0 | 5 | 6 | „ | |
| | | | | Packing, for piston rod ... ... ... ... ... | 0 | 1 | 3 | „ | |

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## CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a*).—LOCOMOTIVES—*contd.*

### 5′ 6″ Gauge.

### *Contracted for in 1890.*

| Contract number and date. | | Articles. | | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| 4665 | 24-10-90 ... | Engines, Locomotive—spare parts of—*contd.* | Brake gear complete. | Rings, joint, for 21″ cylinders ... ... ... ... | 0 | 10 | 0 | Each. | |
| | | | | ,, ,, ,, 18″ ,, ... ... ... ... | 0 | 10 | 0 | ,, | |
| | | | | ,, oiling, india-rubber, for 18″ cylinder ... ... ... | 0 | 5 | 6 | ,, | |
| | | | | ,, ,, ,, ,, ,, 21″ ,, ... ... ... | 0 | 6 | 0 | ,, | |
| | | | | Washers, seating, 52 m.m. ejector clapper valve ... ... ... | 0 | 0 | 9 | ,, | |
| 3948 | 7a -5-90 ... | | Steam Fittings, &c. | Steam, 200 lbs., metal face, not enumelled, 6″ dial ... ... ... | 1 | 1 | 6 | Each. | |
| | | | | ,, ,, ,, ,, 6″ ,, 7″ ,, ... ... ... | 1 | 5 | 0 | ,, | Bourdon's patent. |
| | | | | ,, spare tubes, for H class, heavy L. class, and L class engines ... | 0 | 2 | 6 | ,, | |
| 3097 | 12-10-90 ... | | Glass gauges. | Engine 20″ × ⅜″ outside diameter ... ... ... ... | 0 | 5 | 0 | Dozen. | |
| 3593 | 11-6-90 ... | | | ,, 18″ × ⅜″ ,, ,, ... ... ... ... | 0 | 5 | 7½ | ,, | |
| 3825 | 4 -5-90 ... | | | ,, 14″ × ⅜″ ,, ,, ... ... ... ... | 0 | 2 | 7½ | ,, | Less discount 40 per cent. |
| 3880 | 10 -6-90 ... | | | ,, 13″ × ⅜″ ,, ,, ... ... ... ... | 0 | 3 | 0 | ,, | |
| 3736 | 10 -6-90 ... | | | ,, 12″ × ⅜″ ,, ,, ... ... ... ... | 0 | 3 | 0 | ,, | |
| 4211 | 7-11-90 ... | | | ,, 13″ × ⅜″ ,, ,, ... ... ... ... | 0 | 5 | 0 | ,, | Less discount 37½ per cent. |

### CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a*).—LOCOMOTIVES—*contd.*

### 5′ 6″ Gauge.

### *Contracted for in 1890.*

| Contract number and date. | | Articles. | | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| 3569 | 12 -6-90 ... | Engines, Locomotive—spare parts of—*contd.* | Glass ... | Spectacle, British polished plate, best glazing quality, white, 16½″ diameter × $\frac{3}{16}$″. | 0 | 3 | 4 | Pane. | |
| 3752 | 1 -8-90 ... | | Injectors. | No. 8 m. m. ... ... ... ... ... ... | 10 | 10 | 0 | Each. | |
| 4139 | 11-11-90 ... | | | For B. class engines (O. & R. R.) ... ... ... ... | 10 | 10 | 0 | ,, | |
| | | | | *Boiler Barrel, for H class engines.* | | | | | Cwt. qrs. lbs. |
| 3965 | 16-10-90 ... | | Plates. | 12′ 8½″ × 3′ 6″ × $\frac{7}{16}$″ ... ... ... ... ... | | | | | Estimated weight ... 7 1 20 |
| | | | | 12′ 10½″ × 3′ 6″ × $\frac{7}{16}$″ ... ... ... ... ... | 26 | 5 | 0 | Ton. | ,, ,, ... 7 2 7 |
| | | | | 13′ 1½″ × 3′ 6″ × $\frac{7}{16}$″ ... ... ... ... ... | | | | | ,, ,, ... 7 2 22 |
| | | | | *Fire box, copper.* | | | | | |
| 3563 | 10 -6-90 ... | | | Back ... ... ... ... ... ... | 14 | 3 | 5 | Each. | Estimated weight ... 3 1 0 |
| 4141 | 11-11-90 ... | | | ,, ... ... ... ... ... ... | 19 | 7 | 1 | ,, | ,, ,, ... 4 3 0 |
| 3563 | 10 -6-90 ... | | | ,, ... ... ... ... ... ... | 17 | 5 | 0 | ,, | |
| 4141 | 11-11-90 ... | | | Crown, 3′ 10½″ × 3′ 2½″ × $\frac{7}{16}$″ ... ... ... ... | 8 | 3 | 3 | ,, | ,, ,, ... 2 1 0 |
| | | | | ,, 3′ 10½″ × 3′ 2½″ × $\frac{7}{16}$″ ... ... ... ... | 9 | 17 | 6 | ,, | |

CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a*).—LOCOMOTIVES—*contd.*

5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|
| | Engines, Locomotive—spare parts of—*contd.* Plates—*concld.* | *Fire box, copper*—concld. | | | | | |
| | | Crown, plain, flat— | | | | | |
| 3222 { 4 -3-90 | | 4′ 3″ × 3′ 9″ × $\frac{7}{16}$″ } For H. B. class engines. | 14 | 7 | 0 | Each | |
| | | 5′ 2″ × 4′ 0″ × $\frac{7}{16}$″ } | 15 | 1 | 3 | „ | |
| | | Crown and sides— | | | | | |
| | | 15′ 3″ × 4′ 11$\frac{13}{16}$″ × $\frac{1}{2}$″ ... ... ... ... | 60 | 19 | 5 | „ | |
| | | 15′ 9″ × 5′ 2$\frac{13}{16}$″ × $\frac{1}{2}$″ ... ... ... ... | 60 | 19 | 5 | „ | |
| 3222 { 4 -3-90 | | 5′ 0″ × 4′ 6$\frac{13}{16}$″ × $\frac{1}{2}$″ ... ... ... ... | 24 | 8 | 8 | „ | |
| | | 6′ 0″ × 4′ 6$\frac{13}{16}$″ × $\frac{1}{2}$″ ... ... ... ... | 20 | 1 | 5 | „ | |
| | | For H. B. class engines ... ... ... ... ... | 50 | 11 | 6 | „ | |
| 3222 { 4 -3-90 | | For L. „ „ ... ... ... ... ... | 58 | 17 | 6 | „ | |
| 3163 10 -6-90 | | Side, 4′ 4″ × 3′ 10$\frac{3}{16}$″ × $\frac{7}{16}$″ ... ... ... ... | 11 | 4 | 9 | „ | Left and right side. |
| 4141 11-11-90 | | „ 4′ 4″ × 3′ 10$\frac{3}{16}$″ × $\frac{7}{16}$ ... ... ... ... | 13 | 4 | 6 | „ | Estimated weight ... Cwt. 3 qrs. 0 lbs. 10 |
| 3222 4 -3-90 | | Tube, 5′ 6″ × 4′ 0″ × $\frac{1}{2}$″ and $\frac{5}{8}$″ } Unflanged ... ... ... | 33 | 6 | 9 | „ | |
| | | „ 6′ 6″ × 5′ 0″ × $\frac{1}{2}$″ and $\frac{5}{8}$″ } | 41 | 15 | 0 | „ | |
| 3163 10 -6-90 | | „ flanged ... ... ... ... ... | 19 | 0 | 11 | „ | Estimated weight ... Cwt. 4 qrs. 2 lbs. 10 |



CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a*).—LOCOMOTIVES—*contd.*

5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|
| | Engines, Locomotive—spare parts of—*contd.* Plates—*concld.* | *Fire box, copper*—concld. | | | | | |
| | | Crown and sides—*concld.* | | | | | Cwt. qrs. lbs. |
| 3563 10 -6-90 | | Tubes, flanged, ... ... ... ... ... ... | 26 | 6 | 3 | Each. | Estimated weight ... 6 1 10 |
| 4141 11-11-90 | | „ „ ... ... ... ... ... ... | 21 | 7 | 6 | „ | |
| | | „ „ ... ... ... ... ... ... | 30 | 17 | 6 | „ | |
| | | *Fire box, iron.* | | | | | |
| 3383 26 -3-90 | | Side, for B. class engines (E. B. S. R.) ... ... ... | 6 | 8 | 4 | „ | |
| | | Front, for B. class engines (E. B. S. R.) ... ... ... | 3 | 6 | 8 | „ | |
| | | „ H. „ ... ... ... ... ... | 3 | 3 | 4 | „ | |
| 3180 23 -1-90 | | Tube, flanged, for Kitsons engines ... ... ... ... | 23 | 0 | 0 | „ | Lowmoor iron, estimated weight 6½ cwt. |
| 3178 „ | | „ „ J. class engine ... ... ... ... | 22 | 10 | 0 | „ | „ „ „ 8 „ |
| 3516 29 -5-90 | | „ „ ... ... ... ... ... ... | 12 | 15 | 0 | „ | |
| | | „ „ ... ... ... ... ... ... | 12 | 18 | 11 | „ | |
| 4148 11-11-90 | | „ „ ... ... ... ... ... ... | 16 | 16 | 0 | „ | |
| 3214 3 -1-90 | Rings ... | India-rubber, for ball and socket water unions, 4½″ inside diameter × ⅜″ thick, and 8″ full outside diameter. | 9 | 0 | 0 | ⅋ | |



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## CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a*).—LOCOMOTIVES—*contd.*

### 5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| 3214 | 5 -1-90 ... | Engines, Locomotive—spare parts of—*contd.* | Rings—*concld.* | India-rubber, for gauge glasses, $\frac{1}{2}$″ hole, $\frac{3}{16}$″ thick ... ... | 0 | 17 | 8 | °/₀₀ | |
| 3785 | 23 -8-90 | | | $\frac{1}{2}$″ „ $\frac{5}{16}$″ „ ... ... | 0 | 15 | 0 | „ | |
| | | | | $\frac{9}{16}$″ „ $\frac{3}{16}$″ „ ... ... | 1 | 1 | 6 | „ | |
| 3520 | 30 -5-90 | | | $\frac{3}{4}$″ „ internal diameter ... ... | 1 | 5 | 0 | „ | |
| | | | | $\frac{1}{8}$″ „ „ „ ... ... | 1 | 0 | 0 | „ | |
| 3984 | 21-10-90 ... | | | $\frac{1}{2}$″ for $\frac{9}{16}$″ gauge glass ... ... | 1 | 0 | 10 | „ | |
| 3940 | 15-10-90 ... | | Sheaves ... | (Or Friction Rollers) cast steel, each 9″ long × 6″ diameter with flanges 2″ high for incline engine plane, each fitted with Hadfield's patent self oiling pedestals. | 0 | 18 | 6 | Each. | |
| | | | Tubes. | Boiler, brass— | | | | | |
| | | | | 10′ 2½″ × 1¼″ × 11 and 13 B. W. G. ... ... | | | | | lbs. 100 tubes = 2,058 |
| | | | | 10′ 2¼″ × 1¼″ × 11 and 13 „ for H. B. class engines | | | | | 100 „ = 2,062 |
| 3207 | 31 -1-90 | | | 10′ 9″ × 2″ × 11 and 13 „ K. & S. „ ... | 0 | 0 | 7½ | lb. | 100 „ = 2,486 |
| | | | | 10′ 9″ × 1½″ × 11 and 13 „ P. „ ... | | | | | 100 „ = 2,349 |
| | | | | 11′ 7½″ × 1¼″ × 11 and 13 „ L. „ ... | | | | | 100 „ = 2,344 |



## CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a*).—LOCOMOTIVES—*contd.*

### 5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | | Engines, Locomotive—spare parts of—*contd.* | Tubes—*concld.* | Boiler, Brass—*concld.* | | | | | lbs. |
| 3786 | 23 -8-90 ... | | | 11′ 7½″ × 1¼″ × 11 and 13 B. W. G. ... ... ... | 0 | 0 | 8½ | lb. | 100 tubes = 2,313 |
| 3207 | 31 -1-90 ... | | | 12′ 3½″ × 2″ × 11 and 13 „ for Q. Class Engine ... | 0 | 0 | 7½ | „ | 100 „ = 2,839 |
| 3420 | 29 -4-90 ... | | | 13′ 2″ long, 2″ diameter outside, No. 9 and 12 B. W. G. thick ... | 0 | 0 | 8 | „ | 100 „ = 3,602 |
| 4119 | 13-11-90 ... | | | Boiler, brass ... ... ... ... ... | 0 | 0 | 8½ | „ | 100 „ = 1,970 |
| 3565 | 10 -6-90 ... | | | „ „ ... ... ... ... ... | 0 | 0 | 8 | „ | |
| 3177 | 22 -1-90 ... | | | Mild steel, locomotive, 10′ 1½″ × 3″, expanded to 3¼″ at end for a length of 3″, and 12 B. W. G. throughout. | 0 | 14 | 4 | Each. | |
| | | | Tyres. | Bogie } for H. B. class engine ... ... ... | 3 | 8 | 9 | Each. | |
| | | | | Engine } | 7 | 0 | 6 | „ | |
| | | | | Bogie } | 3 | 14 | 6 | „ | |
| 3171 | 15 -1-90 | | | Engine } „ „ „ ... ... ... | 7 | 15 | 4 | „ | |
| | | | | Tender } | 4 | 15 | 6 | „ | |
| | | | | Engine, leading } | 8 | 17 | 6 | „ | |
| | | | | „ driving } for K. and S. class engines ... ... | 8 | 17 | 6 | „ | |
| | | | | Tender } | 5 | 5 | 0 | „ | |

## CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a.*)—LOCOMOTIVES—*contd.*

### 5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | | Engines, Locomotive—spare parts of—*contd.* | Tyres—*contd.* | | | | | | |
| | | | | Bogie | 3 | 8 | 9 | Each. | |
| | | | | Engine, leading | 6 | 7 | 6 | „ | |
| | | | | „ middle } for L. class engines ... ... ... | 6 | 6 | 0 | „ | |
| | | | | „ trailing | 6 | 7 | 6 | „ | |
| 3171 | 15 -1-90 ... | | | Tender | 4 | 4 | 0 | „ | |
| | | | | Driving | 8 | 4 | 3 | „ | |
| | | | | Leading } for J. class engines ... ... ... | 8 | 4 | 3 | „ | |
| | | | | Trailing | 8 | 4 | 3 | „ | |
| 4145 | 11-11-90 ... | | | Steel, for locomotive and tender wheels ... ... ... | 4 | 12 | 6 | „ | |



## CLASS OF STORES. E.—ROLLING STOCK SUB-HEAD (*a.*)—LOCOMOTIVES—*contd.*

### METRE GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | | Engines Locomotive—spare parts of— | | | | | | | |
| 3760 | 6 -8-90 ... | | Axles. | Leading, driving, and trailing, for F class engines, with cranks finished complete, with the exception of the wheel seats, where an allowance of ¼″ in diameter is left for finishing in India ... ... ... | 52 | 13 | 4 | Set. | |
| 3785 | 24 -7-90 ... | | | Leading, best fagotted iron .. ... ... .. | 10 | 0 | 0 | Pair. | |
| 3760 | 6 -8-90 ... | | Boilers. | Locomotive, for F class engines fitted with smoke-boxes, smoke box doors, chimneys, fire bars, and bearers and all mountings, fitting, and clothing complete, ready to put in frames ... ... ... ... | 448 | 13 | 4 | Each. | To suit engines supplied under contract E 302. |
| 3760 | „ ... | | Cocks. | Gauge, column, asbestos packed, for F class engine ... ... | 7 | 2 | 0 | Set. | Dewrances patent. |
| 3941 | 21 -1-90 ... | | Cranks. | Driving, for axles } for A class engines ... ... ... | 11 | 10 | 0 | Each. | |
| | | | | Trailing | 11 | 10 | 0 | „ | |
| 3470 | 15 -5-90 ... | | Cross heads. | Piston, right and left hand, for new F class engines ... ... | 38 | 0 | 0 | Pair. | |
| 3760 | 6 -8-90 ... | | Cylinders. | Right and left, finished, complete with glands, &c., and covers complete, for F class engines ... ... ... ... ... | 79 | 0 | 0 | Pair. | |

CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a*).—LOCOMOTIVES—*contd.*

METRE GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | | Articles. | | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Engines, Locomotive—spare parts of—*contd.* | Gauges, Pressure. | Steam, Bourdon's, to register up to 200 lbs. with brass cases, 7" diameter central band, without couplings, nipples ⅜" diameter screwed, 18 threads per inch ... ... ... ... ... ... | 1 | 0 | 6 | Each. | |
| 4023 | 24-10-90 | ... | | | Steam, Bourdons, to register up to 200 lbs. dials, 7" diameter ... ... | 1 | 2 | 6 | " | |
| 3215 | 3 -3-90 | ... | | | " " " " " ... ... | 1 | 2 | 6 | " | With gun metal cocks and tail pipes. |
| 3430 | 24 -5-90 | ... | | | " " " " 6", tubes for ... | 0 | 7 | 9 | " | |
| 3689 | 8 -7-90 | ... | | Glasses Gauge. | For Locomotive Engines— | | | | | |
| 2097* | 21-10-90 | ... | | | 7¼" × ⅜" external diameter, for O class engines ... ... | 0 | 2 | 3 | Dozen. | |
| 4160 | 17-11-90 | ... | | | 8" × ⅜" external diameter, for A class engines ... ... | 0 | 2 | 3 | " | |
| 3097 | 21-10-90 | ... | | | 8" × ⅜" " " plain ... ... ... ... | 0 | 3 | 4½ | " | |
| 4160 | 17-11-90 | ... | | | 8¼" × ⅜" " " for F class engines ... ... | 0 | 2 | 4½ | " | |
| 3097 | 21-10-90 | ... | | | 9" × ⅜" " " plain ... ... ... | 0 | 2 | 6 | " | Less 40 per cent. discount. |
| 4160 | 17-11-90 | ... | | | 9½" × ⅜" " " for E class engines ... ... | 0 | 2 | 6 | " | |
| 3097 | 21-10-90 | ... | | | 10½" × ⅜" " " plain ... ... ... | 0 | 2 | 7½ | " | |
| 3471 | 15 -1-90 | ... | | | 15¼" × ⅜" " " " ... ... ... | 0 | 3 | 10½ | " | |
| | | | | | 31½" × ⅜" " " " ... ... ... | 0 | 7 | 10½ | " | |

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CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a*.)—LOCOMOTIVES—*contd.*

METRE GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | | Articles. | | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|
| 3752 | 1-8-90 | ... | Engines, Locomotive—spare parts of—*contd.* | Injectors. | Right and left hand ... ... ... ... ... | 9 | 15 | 0 | Set. | |
| 3473 | 15-5-90 | ... | | | " " for F class engines ... ... ... | 9 | 15 | 0 | " | Gresham's patent. |
| 3752 | 1-8-90 | ... | | | Brass rams, for— ... ... ... ... ... | 2 | 5 | 0 | " | |
| 3352 | 18-3-90 | ... | | Pins | Split Cotter— | | | | | |
| | | | | | Long diameter | | | | | |
| | | | | | 1" × ⅛" ... ... ... ... | 0 | 0 | 5 | Gross. | |
| | | | | | 1½" × ⅛" ... ... ... ... | 0 | 0 | 5¼ | " | |
| | | | | | 1½" × ⅛" ... ... ... ... | 0 | 0 | 6 | " | |
| | | | | | 1½" × 5/16" ... ... ... ... | 0 | 0 | 7½ | " | |
| | | | | | 2" × 5/16" ... ... ... ... | 0 | 0 | 9 | " | |
| | | | | | 2½" × 5/16" ... ... ... ... | 0 | 0 | 10½ | " | |
| | | | | | 3" × 5/16" ... ... ... ... | 0 | 1 | 0½ | " | |
| | | | | | 3" × ¼" ... ... ... ... | 0 | 1 | 7½ | " | |

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CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a.*)—LOCOMOTIVES—*contd.*

METRE GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | | Articles. | | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Engines, Locomotive—spare parts of—*contd.* | Pins—*contd.* | Split, taper, steel— | | | | | |
| | | | | | Long diameter at thick end— | | | | | |
| | | | | | $1\frac{1}{4}'' \times \frac{5}{16}''$ ... ... ... ... ... ... | 0 | 6 | 0 | Gross. | |
| | | | | | $2\frac{1}{4}'' \times \frac{7}{16}''$ ... ... ... ... ... ... | 0 | 7 | 0 | „ | |
| | | | | | $2'' \times \frac{1}{4}''$ ... ... ... ... ... ... | 0 | 8 | 0 | „ | |
| | | | | | $2\frac{1}{4}'' \times \frac{1}{4}''$ ... ... ... ... ... ... | 0 | 8 | 6 | „ | |
| | | | | | $2\frac{3}{4}'' \times \frac{1}{4}''$ ... ... ... ... ... ... | 0 | 9 | 6 | „ | |
| | | | | | $2\frac{1}{4}'' \times \frac{5}{16}''$ ... ... ... ... ... .. | 0 | 10 | 6 | „ | |
| | | | | | $4'' \times \frac{1}{2}''$ ... ... ... ... ... ... | 0 | 13 | 6 | „ | |
| | | | | | $4'' \times \frac{7}{16}''$ ... ... ... ... ... ... | 0 | 15 | 6 | „ | |
| | | | | Pipes. | Flexible, feed, for engine tenders, with coil inside, of galvanized steel wire, 11. B. W. G. length 2′ 8″, diameter inside 2″ ... ... ... | 0 | 6 | 4 | Each. | |
| | | | | Springs. | Buffer, for engine ... ... ... ... ... | 0 | 8 | 6 | Each. | |
| | | | | | „ intermediate, with buckles, complete ... ... ... | 1 | 8 | 0 | „ | |
| | | | | | Leading, for A class engines ... ... ... ... | 0 | 13 | 3 | „ | |
| | | | | Springs—*contd.* | Tender, with buckles, complete ... ... ... ... | 16 | 0 | 0 | Each. | |
| 3771 | 14-8-90 | | | | Trailing, end, with buckles, complete ... ... ... ... | 18 | 0 | 0 | „ | |
| 3452 | 13-5-90 | ... | | | „ transverse, for E class engine... ... ... ... | 1 | 16 | 6 | „ | |
| 3497 | 24-5-90 | ... | | Tubes. | Boiler, brass 8′ $6\frac{1}{2}''$ × $1\frac{1}{2}''$ × 11 and 12 B. W. G. ... ... | 0 | 0 | $7\frac{5}{8}$ | lb. | 100 tubes = 1,525 lbs. |
| | | | | Tyres. | Driving } | 3 | 10 | 0 | Each. | |
| 3453 | 13-5-90 | | | | Leading } for A class engines ... ... ... ... | 2 | 4 | 0 | „ | |
| | | | | | Trailing } | 3 | 10 | 0 | „ | |
| 3182 | 23-1-90 | ... | | | Tender for E. „ „ ... ... ... ... | 2 | 9 | 2 | „ | |
| 3453 | 13-5-90 | ... | | | Driving } | 3 | 13 | 0 | „ | |
| 3748 | 29-7-90 | ... | | | Engine } | 3 | 14 | 6 | „ | |
| 3453 | 13-5-90 | ... | | | Leading } for F class engines ... ... ... ... | 3 | 13 | 0 | „ | |
| 3748 | 29-7-90 | ... | | | Tender } | 2 | 1 | 6 | „ | |
| 3819 | 10-9-90 | ... | | | Trailing (2′ 0″ gauge) for Vulcan Foundry Engines ... ... | 5 | 0 | 0 | „ | Jorhat Railway. |
| 3860 | 29-9-90 | ... | | Washers. | Vulcanized, India-rubber, 6″ diameter × 2″ hole × 2″ thick, for engine buffer | 0 | 5 | 8 | Each | |



CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*a.*)—LOCOMOTIVES—*contd.*

METRE GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | | Articles. | | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|
| 3771 | 14-8-90 | | Engines, Locomotive—spare parts of—*concld.* | Springs—*concld.* | Tender, with buckles, complete ... ... ... ... | 16 | 0 | 0 | Each. | |
| 3452 | 13-5-90 | ... | | | Trailing, end, with buckles, complete ... ... ... ... | 18 | 0 | 0 | „ | |
| 3497 | 24-5-90 | ... | | | „ transverse, for E class engine... ... ... ... | 1 | 16 | 6 | „ | |
| | | | | Tubes. | Boiler, brass 8′ $6\frac{1}{2}''$ × $1\frac{1}{2}''$ × 11 and 12 B. W. G. ... ... | 0 | 0 | $7\frac{5}{8}$ | lb. | 100 tubes = 1,525 lbs. |
| 3453 | 13-5-90 | | | Tyres. | Driving } | 3 | 10 | 0 | Each. | |
| | | | | | Leading } for A class engines ... ... ... ... | 2 | 4 | 0 | „ | |
| | | | | | Trailing } | 3 | 10 | 0 | „ | |
| 3182 | 23-1-90 | ... | | | Tender for E. „ „ ... ... ... ... | 2 | 9 | 2 | „ | |
| 3453 | 13-5-90 | ... | | | Driving } | 3 | 13 | 0 | „ | |
| 3748 | 29-7-90 | ... | | | Engine } | 3 | 14 | 6 | „ | |
| 3453 | 13-5-90 | ... | | | Leading } for F class engines ... ... ... ... | 3 | 13 | 0 | „ | |
| 3748 | 29-7-90 | ... | | | Tender } | 2 | 1 | 6 | „ | |
| 3819 | 10-9-90 | ... | | | Trailing (2′ 0″ gauge) for Vulcan Foundry Engines ... ... | 5 | 0 | 0 | „ | Jorhat Railway. |
| 3860 | 29-9-90 | ... | | Washers. | Vulcanized, India-rubber, 6″ diameter × 2″ hole × 2″ thick, for engine buffer | 0 | 5 | 8 | Each | |

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# CLASS E.

## ROLLING STOCK.

### (*b*).—COACHING AND GOODS STOCK.

**(1) Complete Ironwork for Vehicles**

## CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (1).—COMPLETE IRON-WORK FOR VEHICLES.

### 5′ 6″ Gauge.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 4093 | 6-11-90 ... | Brake Vans, 19 feet 3 inches long. | Underframe and body steel and iron work, roofing, lavatory, metallic fittings, underframe, and panel pins, for brake vans, with 6 wheels ... ... For detailed rates, see Appendix H. | 160 | 0 | 0 | Set | Note.—The cost per set does not include the price of wheels and axles, bearing and draw, and buffer springs, india-rubber window cushions, Attock's blocks, lamps, and axle boxes. |
| 4131 | 8-11-90 ... | Carriages, first class, 24 feet 2 inches long. | Underframe, underframe and body steel and iron work, roofing, lavatory, and metallic fittings, and panel pins, for first class carriage complete. Estimated weight, 3-5-2-23. | 199 | 10 | 0 | Set. | |
| 4131 | 8-11-90 ... | Carriages, second class, 24 feet 2 inches long. | Underframe, underframe and body steel and iron work, roofing, lavatory and metallic fittings, and panel pins, for second class carriages complete. | 199 | 10 | 0 | Set. | |
| 4177 | 4-12-90 ... | Cranes, Accident | Travelling, mounted on steel truck, and suited to lift and slue a weight of 10 tons, at a maximum radius of 16 feet from the centre of the crane to the centre of chain, at a height of 23 feet 6 inches. Wheels 6 in number. | 545 | 0 | 0 | Each. | |
| 4093 | 6-11-90 ... | Wagons, Ballast, 19 feet 3 inches long. | Underframe, underframe and body steel and iron work, for ballast wagons For detailed rates see Appendix H. | 100 | 15 | 0 | Set. | |
| 3310 | 1 -3-90 ... | Wagons, Covered Goods, 19 feet 6 inches long. | Underframe, underframe and body steel and iron work, for covered goods wagons. (Details given in the Contract.) | 140 | 15 | 0 | Set. | |



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CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (1).—COMPLETE IRON-WORK FOR VEHICLES—*contd.*

METRE GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 3423 | 1-5-90 ... | Brake Vans, 18 feet long. | Underframe, underframe and body steel and ironwork, lavatory and metallic fittings, trimmings, and window glass (wheels 2 ft. 4 inches diameter.) *Inside dimensions.* Length ... ... ... 17 feet 4 inches. Width ... ... ... 6 „ 4 „ Height, centre ... ... 6 „ 6½ „ | 116 | 16 | 0 | Set. | |
| 3933 | 10-10-90 ... | Carriages, Composite | Underframe, underframe and body steel and ironwork, roofing and metallic fittings, for composite (first and second class) carriages. | 73 | 15 | 0 | Set. | The invoice prices for the composite and third class carriages are just the same. |
| 3423 | 1-5-90 ... | Carriages, first class | Underframe, underframe and body steel and iron work, lavatory and metallic fittings, trimmings, and window glass, for first class or inspection carriage, with end doors (wheels 2 ft. 4 inches diameter.) | 177 | 10 | 0 | Set. | |
| 3933 | 10-10-90 ... | Carriages, 3rd class. | Underframe, underframe and body steel and iron work, roofing, and metallic fittings, for third class carriages ... ... ... ... | 73 | 15 | 0 | Set. | |



CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (1).—COMPLETE IRON-WORK FOR VEHICLES—*concld.*

METRE GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 3154 | 2-1-90 ... | Cranes. | Accident, travelling, mounted on steel trucks, suited to lift and slue a weight of five tons at a maximum radius of 16 feet from centre of pillar to centre of chain ... ... ... ... ... ... | 372 | 10 | 0 | Each. | Extra price free on board shipped from Tyne £ 3-5-0. |
| | | | Accident, travelling, mounted on steel truck, suited to lift and slue a weight of 10 tons ... ... ... ... ... ... | 525 | 0 | 0 | „ | Extra price free on board shipped from Tyne £ 4-5-0. |
| 3404 | 5-4-90 ... | Wagons, Ballast, 14 feet long. | Underframe, and steel and iron work, for underframes and bodies for low sided or ballast wagons with wood side and ends ... ... | 59 | 0 | 6 | Set. | Cwt. qrs. lbs. Estimated total weight 34 1 18 |
| 3404 | 5-4-90 ... | Timber Truck, 14 feet long. | Underframe and body, steel and iron work, complete for timber truck, 14 feet long with two fixed Bosters ... ... ... ... | 68 | 0 | 0 | Set. | Ditto ditto 37 3 14 |
| 3783 | „ ... | Wagons, Jute, 14 feet long. | Bogie underframe, and body steel and iron work, &c., for jute wagons ... | 38 | 14 | 0 | Set. | For Kaunia-Dharla Railway 2′ 6″ gauge. |

1724.
1c

# CLASS E.

## ROLLING STOCK.

### (*b*).—COACHING AND GOODS STOCK.

**(2) Ironwork.**

## CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (2).—IRONWORK.

### 5′ 6″ Gauge.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 3179 | 23 -1-90 ... | Axles. | *Bogie*, carriage and wagon, wheel seats rough turned ... ... | 5 | 5 | 8 | Each. | Taylor Brothers. |
| | | | Ordinary „ „ „ ... ... | 5 | 2 | 2 | „ | |
| 3535 | 3 -6-90 ... | | Iron, 5¼″, journal 4¼″ diameter when finished ... ... | 4 | 18 | 10 | „ | Lowmoor Company. |
| 4146 | 11-11-90 ... | | „ 5½″ diameter at centre, journal 4¼″ diameter × 9″ long when finished. | 5 | 0 | 3 | „ | Taylor Brothers. |
| 3208 | 30 -1-90 ... | Axle Boxes. | Without brasses, 9″ × 4″, leather washers, wrought iron shields and set screws. | 0 | 13 | 0 | Each. | |
| 3282 | 24 -2-90 ... | | „ „ „ „ „ | 0 | 12 | 0 | „ | |
| 4161 | 17-11-90 ... | | With gun-metal bearings, leather washers, wrought iron shields, and set screws complete. | 1 | 2 | 3 | „ | |
| 3173 | 16 -1-90 ... | Couplings. | Screw, with shackles, pins, and collars, complete ... ... ... | 1 | 12 | 7 | Each. | |
| 3489 | 23 -5-90 ... | | „ with three shackles, pins, and washers, complete ... ... | 1 | 11 | 9 | „ | |
| 3488 | 23 -5-90 ... | | „ „ „ „ ... ... | 1 | 12 | 7½ | „ | |
| 3753 | 1 -8-90 ... | Body Ironwork—spare parts of— | Iron, corrugated, galvanized, curved, for carriage roof ... ... | 15 | 2 | 6 | Ton. | |
| 3566 | 10 -6-90 ... | | Iron sheets, for panels of sizes ... ... ... ... | 16 | 15 | 0 | „ | |

## CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (2).—IRONWORK.

### 5′ 6″ Gauge.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 3179 | 23 -1-90 ... | Axles. | *Bogie*, carriage and wagon, wheel seats rough turned ... ... | 5 | 5 | 8 | Each. | Taylor Brothers. |
| | | | Ordinary „ „ „ ... ... | 5 | 2 | 2 | „ | |
| 3535 | 3 -6-90 ... | | Iron, 5½″, journal 4¼″ diameter when finished ... ... | 4 | 18 | 10 | „ | Lowmoor Company. |
| 4146 | 11-11-90 ... | | „ 5½″ diameter at centre, journal 4¼″ diameter × 9″ long when finished. | 5 | 0 | 3 | „ | Taylor Brothers. |
| 3208 | 30 -1-90 ... | Axle Boxes. | Without brasses, 9″ × 4″, leather washers, wrought iron shields and set screws. | 0 | 13 | 0 | Each. | |
| 3282 | 24 -2-90 ... | | „ „ „ „ „ | 0 | 12 | 0 | „ | |
| 4161 | 17-11-90 ... | | With gun-metal bearings, leather washers, wrought iron shields, and set screws complete. | 1 | 2 | 3 | „ | |
| 3173 | 16 -1-90 ... | Couplings. | Screw, with shackles, pins, and collars, complete ... ... ... | 1 | 12 | 7 | Each. | |
| 3489 | 23 -5-90 ... | | „ with three shackles, pins, and washers, complete ... ... | 1 | 11 | 9 | „ | |
| 3488 | 23 -5-90 ... | | „ „ „ „ ... | 1 | 12 | 7½ | „ | |
| 3753 | 1 -8-90 ... | Body Ironwork—spare parts of— | Iron, corrugated, galvanized, curved, for carriage roof ... ... | 15 | 2 | 6 | Ton. | |
| 3566 | 10 -6-90 ... | | Iron sheets, for panels of sizes ... ... ... ... | 16 | 15 | 0 | „ | |



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CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (2).—IRONWORK—*contd.*

5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | | Springs. | Bearing, for carriages ... ... ... ... ... | 1 | 18 | 10 | Each. | |
| 3152 | 2 -1-90 ... | | ,, 11 plates, 4′ wide ... ... ... ... | 1 | 17 | 3 | ,, | |
| | | | ,, for wagons ... ... ... ... ... | 1 | 0 | 10 | ,, | |
| | | | ,, eliptical, bogie (in groups of 3) ... ... ... | 2 | 11 | 2 | ,, | |
| 3278 | 22 -2-90 ... | | Bearing, for carriages and wagons ... ... ... ... | 1 | 2 | 11 | ,, | Timmis' patent. |
| 3158 | 7 -1-90 ... | | Buffer, with malleable C. I. washers and steel ferrules ... ... | 0 | 5 | 3½ | ,, | |
| 3946 | 15-10-90 ... | | ,, spiral ... ... ... ... ... ... | 0 | 9 | 5 | ,, | |
| 3278 | 22 -2-90 ... | | ,, volute ... ... ... ... ... ... | 0 | 7 | 5 | ,, | |
| | | | ,, Timmis patent, unequal section ... ... ... | 0 | 12 | 0 | ,, | |
| | | | For draw bars— | | | | | |
| | | | 4″ deep × 2½″ hole B ... ... ... ... | 0 | 7 | 3 | ,, | |
| 3159 | 6 -1-90 ... | | 8″ ,, × 1½″ ,, H 2 ... ... ... ... | 0 | 8 | 0 | ,, | |
| | | | 9½″ ,, × 2½″ ,, C ... ... ... ... ... | 0 | 7 | 6 | ,, | |
| | | | 9½″ ,, × 2½″ ,, ... ... ... ... ... | 0 | 7 | 9 | ,, | |
| | | | 10″ ,, × 2″ ,, H ... ... ... ... | 0 | 7 | 0 | ,, | |
| | | | 16″ ,, × 1½″ ,, D ... ... ... ... | 0 | 8 | 6 | ,, | |

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CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (2).—IRONWORK—*contd.*

5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £. | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 3278 | 22 -2-90 ... | Springs—*contd.* | Draw Volute ... ... ... ... ... | 0 | 8 | 6 | Each. | |
| 3501 | 10 -6-90 ... | | ,, ,, for draw hooks ... ... ... ... | 0 | 5 | 6 | ,, | |
| | | | B 2 ... ... ... ... ... ... | 0 | 7 | 6 | ,, | |
| | | | D 2 ... ... ... ... ... ... | 0 | 12 | 0 | ,, | |
| 3159 | 6 -1-90 ... | | E 2 ... ... ... ... ... ... | 0 | 8 | 0 | ,, | |
| | | | F ... ... ... ... ... ... | 0 | 5 | 6 | ,, | |
| | | | G 2 ... ... ... ... ... ... | 0 | 8 | 3 | ,, | |
| | | | H 2 ... ... ... ... ... ... | 0 | 7 | 6 | ,, | |
| | | | I or J ... ... ... ... ... ... | 0 | 7 | 0 | ,, | |
| | | | K ... ... ... ... ... ... | 0 | 7 | 6 | ,, | |
| 3152 | 2 -1-90 ... | | Triple coil, nest, bogie ... ... ... ... ... | 0 | 13 | 6 | ,, | |
| | | Tyres. | Bessemer, for bogie carriage, and wagons ... ... ... | 2 | 7 | 9 | Each. | |
| 3169 | 15 -1-90 ... | | ,, I. S. R. type for ,, ... ... ... ... | 2 | 17 | 8 | ,, | |
| | | | ,, 3′ 2½″ ... ... ... ... ... | 2 | 14 | 4 | ,, | |

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CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (2).—IRONWORK—*contd.*

5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Cwt. qrs. lbs. |
| 4133 | 10-11-90 ... | Underframes, set complete. | Underframe, underframe steel and ironwork, and ironsheet, for panels, for Post Office and third class carriages combined, 28 feet long. | 84 | 10 | 0 | Each. | Total weight of steel and ironwork. 59 2 7 |
| 3393 | 28-3-90 ... | | Underframes, iron, without buffers, scroll irons, axle guards, bearing springs, footstep brackets, &c., for carriages, rivetted up complete. | 43 | 2 | 6 | ,, | Total weight of steel and ironwork. 33 1 18 |
| | | Underframe ironwork—spare parts of— | *Brake gear, Automatic Vacuum, for—* | | | | | |
| | | | Brake vans, 24 feet long, with piping ... ... ... ... | 44 | 0 | 0 | each. | Including Brake rigging. |
| | | | ,, 24 feet long, without piping ... ... ... ... | 37 | 14 | 0 | ,, | |
| | | | Composite carriages, 24 feet long ... ... ... ... | | | | | |
| 3974 | 21-10-90 ... | | Horse boxes ,, ... ... ... ... | | | | | |
| | | | Luggage vans ,, ... ... ... ... | 38 | 0 | 0 | ,, | Including Brake rigging. |
| | | | Second class carriages ,, ... ... ... | | | | | |
| | | | Store vans ,, ... ... ... ... | | | | | |
| | | | Third class carriages, 27′ 4″ ... ... ... ... | | | | | |

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CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (2).—IRONWORK—*contd.*

5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | | | *Brake gear, Automatic, Vacuum —spare parts of—* | | | | | |
| | | Underframe ironwork—spare parts of—*contd.* | Cradles ... ... ... ... ... ... | 1 | 11 | 10 | Each. | |
| | | | Draw bars, for carriage and wagon— | | | | | |
| | | | Draw bars, A size ... ... ... ... ... | 1 | 16 | 7 | ,, | |
| 4019 | 23-10-90 | | ,, ,, B ,, ... ... ... ... ... | 2 | 11 | 10 | ,, | |
| | | | ,, ,, C ,, ... ... ... ... ... | 2 | 18 | 3 | ,, | |
| | | | ,, ,, F ,, ... ... ... ... ... | 2 | 0 | 8 | ,, | |
| | | | ,, ,, G ,, ... ... ... ... ... | 2 | 3 | 11½ | ,, | |
| | | | Diaphragm valve ball (new pattern) ... ... ... ... | 0 | 1 | 0 | ,, | |
| 4022 | 24-10-90 | | ,, van valve ... ... ... ... ... | 0 | 1 | 9 | ,, | |
| | | | Hose pipe, with couplings 27″ × 2″ ... ... ... ... | 1 | 15 | 0 | ,, | For all vehicles. |
| 3212 | 30-1-90 | | Pipes or hose, with couplings complete... ... ... ... | 1 | 15 | 0 | ,, | |
| | | | ,, ,, without couplings ... ... ... ... | 0 | 13 | 0 | ,, | |
| 4022 | 24-10-90 ... | | Joints, insertion, for hall valve ... ... ... ... | 0 | 0 | 3 | ,, | |
| 3874 | 2-10-90 ... | | Piping, with hose, coupling, &c., complete in lengths of 27 feet, for 3rd class carriages. | 6 | 6 | 0 | Set. | |

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CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (2).—IRONWORK—*contd.*

5′ 6″ GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 4022 | 24-10-90 | Underframe ironwork—spare parts of—contd. | Washers, coupling, for 2″ couplings, 27 feet long ... ... | 0 | 0 | 8 | Each. | This includes 2 pairs castings to a set. |
| | | | ,, ,, ,, 1″ ,, ... ... ... ... | 0 | 0 | 5 | ,, | |
| | | | ,, seating, for van valve ... ... ... ... | 0 | 0 | 9 | ,, | |
| 3179 | 16 -7-90 | | Steel castings, bogie centre, finished, but without pins ... ... | 8 | 11 | 6 | Set. | |
| 4259 | 24-11-90 | Wheels and Axles... | Complete, for carriages and wagons ... ... ... ... | 17 | 5 | 0 | Pair. | |
| 4260 | 24-11-90 | | ,, ,, ,, ,, ,, ... ... ... ... | 17 | 7 | 6 | ,, | |

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CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (2). IRONWORK—*contd.*

METRE GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 3414 | 14 -4-90 ... | Axle Boxes. | With gun metal bearings, leather washers, wrought iron shields, and set screws complete. | 0 | 16 | 9 | Each. | |
| 3763 | 12 -8-90 | | With gun metal bearings, leather washers, wrought iron shields and set screws, to suit $6\frac{5}{16}″ \times 2\frac{3}{4}″$ journals. | 0 | 18 | 9 | ,, | |
| | | | With gun metal bearings, leather washers, wrought iron shields, and set screws, to suit 7″ × 3″ journals. | 0 | 18 | 9 | ,, | |
| 3858 | 27 -9-90 ... | | With gun metal bearings, leather washers, wrought iron shields, and set screws, for carriages. | 0 | 18 | 0 | ,, | |
| 3764 | 13 -8-90 ... | | With gun metal bearings, leather washers, wrought iron shields, and set screws, for jute wagons (2′ 6″ gauge). | 0 | 18 | 2 | ,, | |
| 4021 | 24-10-90 ... | Body, Iron work—spare parts of— | Iron sheets, galvanized, corrugated, curved, 8 feet 6 inches long, to cover a width of 2′ 3″. | 14 | 0 | 0 | Ton. | |
| 3329 | 8 -3-90 ... | | Plates, planished, for panels of carriages, 8′ $9\frac{1}{2}″$ × 2′ $4\frac{1}{2}″$ × 12 B. W. G ... | 0 | 16 | $7\frac{1}{2}$ | Cwt. | |
| 3411 | 14 -4-90 | Springs. | Bearing, for brake vans ... ... ... ... ... | 1 | 7 | 6 | Each. | |
| | | | ,, carriages ... ... ... ... ... | 1 | 5 | 6 | ,, | |
| | | | ,, wagons ... ... ... ... ... | 0 | 11 | 3 | ,, | |
| 3771 | 14 -8-90 ... | | ,, ,, ... ... ... ... ... | 0 | 14 | 0 | ,, | |
| 3782 | 22 -8-90 ... | | ,, ,, ... ... ... ... ... | 0 | 17 | 0 | ,, | |

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METRE GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 3606 | 23 -6-90 ... | Springs—*concld.* | Bearing, tension, for brake vans, 11 plates ... ... ... | 1 | 7 | 0 | Each. | |
| 3813 | 9 -9-90 ... | | „ „ „ 11 plates ... ... ... ... | 1 | 7 | 0 | „ | Standard size. |
| 3485 | 20 -5-90 ... | | Buffers, 7" long, for carriages ... ... ... ... | 0 | 6 | 9 | „ | |
| 3411 | 14 -4-90 ... | | „ volute ... ... ... ... ... | 0 | 6 | 8 | „ | |
| 3771 | 14 -8-90 ... | | „ for carriages and wagons ... ... ... ... | 0 | 8 | 0 | „ | |
| 3765 | 14 -8-90 ... | | Coiled, for buffer and draw gear ... ... ... ... | 0 | 6 | 9 | „ | |
| 3554 | 9 -6-90 ... | | Spiral, for bogie underframe, for first class carriages ... ... | 0 | 5 | 9 | „ | |
| 3945 | 15-10-90 ... | | „ buffer ... ... ... ... ... | 0 | 9 | 5 | „ | |
| 3473 | 16 -5-90 | Underframe iron work—spare parts of— | Buffer, central, with hooks, for carriages ... ... ... | 2 | 2 | 0 | Each. | |
| | | | „ „ with chain, for „ ... ... ... | 1 | 16 | 6 | „ | |
| | | | „ screw, complete ... ... ... ... ... | 6 | 2 | 0 | „ | Rendel's design. |
| 3662 | 21-10-90 ... | | Sockets, spring, wrought iron, out-side ... ... ... | 0 | 9 | 9 | „ | |
| 3279 | 24 -7-90 ... | | Complete, for carriages and wagons ... ... ... ... | 10 | 12 | 0 | Pair. | |
| 3452 | 14 -4-90 ... | Wheels and axles. | „ „ „ ... ... ... ... | 8 | 15 | 0 | „ | |
| 3859 | 29 -9-90 ... | | „ „ „ journal 7" × 3" ... ... | 8 | 16 | 0 | „ | |
| 4191 | 16-12-90 ... | | „ „ „ ... ... ... ... | 6 | 4 | 0 | „ | For Jorhat Railway (2 ft. 6 inch gauge.) |
| 3776 | 18 -8-90 ... | | | | | | | |



# CLASS E.

## ROLLING STOCK.

### (*b*).—COACHING AND GOODS STOCK.

(3) Metallic and other Fittings.

METRE GAUGE.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 3693 | 23 -6-90 | ... | Bearing, tension, for brake vans, 11 plates ... ... ... | 1 | 7 | 0 | Each. | |
| 3813 | 9 -6-90 | ... | „ „ „ 11 plates ... ... ... ... | 1 | 7 | 0 | „ | Standard size. |
| 3695 | 20 -5-90 | ... | Buffers, 7" long, for carriages ... ... ... ... | 0 | 6 | 9 | „ | |
| 3411 | 14 -4-90 | ... | „ volute ... ... ... ... ... | 0 | 6 | 8 | „ | |
| 3771 | 14 -6-90 | ... | „ for carriages and wagons ... ... ... ... | 0 | 8 | 0 | „ | |
| 3745 | 14 -6-90 | ... | Coiled, for buffer and draw gear ... ... ... ... | 0 | 6 | 9 | „ | |
| 3334 | 9 -6-90 | ... | Spiral, for bogie underframe, for first class carriages ... ... | 0 | 5 | 9 | „ | |
| 3946 | 15-10-90 | ... | „ buffer ... ... ... ... ... | 0 | 9 | 5 | „ | |
| | | Underframe iron work spare parts of— | Buffer, central, with hooks, for carriages ... ... ... | 2 | 2 | 0 | Each. | |
| | | | „ „ with chain, for „ ... ... ... | 1 | 16 | 6 | „ | |
| 3424 | 18 -5-90 | | „ screw, complete ... ... ... ... ... | 6 | 2 | 0 | „ | Rendel's design. |
| | | | Sockets, spring, wrought iron, out-side ... ... ... | 0 | 9 | 9 | „ | |
| 3692 | 22-10-90 | | Complete, for carriages and wagons ... ... ... ... | 10 | 12 | 0 | Pair. | |
| 3279 | 24 -3-90 | | „ „ „ ... ... ... ... | 8 | 15 | 0 | „ | |
| 3413 | 14 -4-90 | Wheels and axles. | „ „ „ journal 7" × 3" ... .. | 8 | 16 | 0 | „ | |
| 3959 | 29 -9-90 | | „ „ „ ... ... ... ... | 6 | 4 | 0 | „ | For Jorhat Railway (2 ft. 6 inch gauge.) |
| 4258 | 16-12-90 | | | | | | | |
| 3779 | 16 -8-90 | | | | | | | |



# CLASS E.

## ROLLING STOCK.

(*b*).—COACHING AND GOODS STOCK.

(3) Metallic and other Fittings.

## CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (3).—METALLIC AND OTHER FITTINGS.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 3601 | 21 -1-90 ... | Basins ... | Washing, earthenware, with pipes, plugs and chains complete ... ... | 1 | 0 | 3 | Each. | |
| 3434 | 8 -5-90 ... | Gauze ... | Copper wire, 34 mesh, wire 32 S. W. G., 3 feet wide ... ... | 0 | 1 | 2½ | L. ft. | |
| 3742 | 26 -7-90 ... | | Iron wire, wove, galvanized, 7 meshes to 2 lineal inches, each piece 30′ × 2′ 6″. | 0 | 0 | 3¼ | S. ft. | |
| 3924 | 10-10-90 ... | Glasses ... | Looking, 18″ × 18″ × ¼″ thick, ground and polished, with teak wood frames, 1′, 8½″ square, 1½″ wide and ⅝″ thick. | 0 | 16 | 0 | Each. | |
| | | | *Plate, best glazing quality, British polished.* | | | | | |
| 4143 | 11-11-90 .. | Glass. | Fluted, 17″ × 16″ × ⅛″ thick ... ... ... | 0 | 0 | 9½ | Pane. | |
| 3431 | 6 -5-90 ... | | Ground, 18¼″ × 14″ × 3/16″ „ ... ... ... | 0 | 3 | 1 | „ | For inspection carriage. |
| 3442 | 8 -5-90 ... | | „ 18″ × 16″ × 3/16″ „ ... ... ... | 0 | 3 | 2½ | „ | For bath room. |
| 4151 | 14-11-90 ... | | Neutral tinted, 24″ × 18¼″ × 3/16″ „ ... ... ... | 0 | 8 | 8½ | „ | 22 lbs. per sq. foot. |
| | | | „ „ 22″ × 17″ × 3/16″ „ ... ... ... | 0 | 6 | 0¼ | „ | |
| 3163 | 9 -1-90 ... | | „ „ 22″ × 14″ × 3/16″ „ ... ... ... | 0 | 5 | 0 | „ | |
| | | | „ „ 20″ × 20″ × 3/16″ „ ... ... ... | 0 | 6 | 5¼ | „ | |

CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (3). METALLIC AND OTHER FITTINGS—*contd.*

*Contracted for in 1890.*

| Contract number and date. | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|
| | Glass—*contd.* | *Plate, best glazing quality, British polished*—contd. | | | | | |
| 4151 14-11-90 ... | | Neutral tinted 19″ × 15″ × $\frac{3}{16}$″ thick ... ... ... | 0 | 6 | 6½ | Pane. | |
| 4151 14-11-90 ... | | „ „ 18½″ × 18″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 6 | 6½ | „ | |
| 3403 5 -4-90 ... | | „ „ 18½″ × 18½″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 5 | 10 | „ | |
| 3400 5 -4-90 ... | | „ „ 18½″ × 18½″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 5 | 10 | „ | |
| 3163 9 -1-90 ... | | „ „ 18″ × 14″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 4 | 1 | „ | |
| | | „ „ 12″ × 12″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 2 | 4 | „ | |
| 3569 12 -6-90 ... | | White, 28″ × 7½″ × ¼″ thick ... ... ... ... | 0 | 2 | 0½ | „ | |
| 4143 11-11-90 ... | | „ 28″ × 7½″ × ¼″ „ ... ... ... ... | 0 | 2 | 0½ | „ | |
| 3569 12 -6-90 ... | | „ 24″ × 18½″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 5 | 7½ | „ | |
| 4143 11-11-90 ... | | „ 24″ × 18½″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 5 | 6 | „ | |
| 3569 12 -6-90 ... | | „ 24″ × 18″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 5 | 2 | „ | |
| 4143 11-11-90 ... | | „ 24″ × 18″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 5 | 0½ | „ | |
| 3569 12 -6-90 ... | | „ 24″ × 17½″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 5 | 2 | „ | |
| 4143 11-11-90 ... | | „ 24″ × 17½″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 5 | 0½ | „ | |
| 3569 12 -6-90 ... | | „ 24″ × 12″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 3 | 4 | „ | |
| 4143 11-11-90 ... | | „ 24″ × 12″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 3 | 3 | „ | |
| 3569 21-10-90 ... | | „ 24″ × 7″ × ¼″ „ ... ... ... ... | 0 | 1 | 6½ | „ | |



CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (3).—METALLIC AND OTHER FITTINGS—*concld.*

*Contracted for in 1890.*

| Contract number and date. | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|
| | Glass—*concld.* | *Plate, best glazing quality, British polished*—concld. | | | | | |
| 4143 11-11-90 ... | | White 24″ × 7″ × ¼″ thick ... ... ... ... | 0 | 1 | 6½ | Pane. | |
| 3999 21-10-90 ... | | „ 22″ × 15″ × $\frac{3}{16}$ „ ... ... ... ... | 0 | 4 | 4½ | „ | |
| 3569 12 -6-90 ... | | „ 19″ × 18″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 4 | 1 | „ | |
| 4143 11-11-90 ... | | „ 19″ × 18″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 4 | 0 | „ | |
| 3569 12 -6-90 ... | | „ 19″ × 16″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 3 | 7½ | „ | |
| 4143 11-11-90 ... | | „ 19″ × 16″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 3 | 6½ | „ | |
| 3431 6 -5-90 ... | | „ 18½″ × 14″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 3 | 1 | „ | For brake vans. |
| 3442 8 -5-90 ... | | „ 18″ × 16″ × $\frac{3}{16}$″ „ ... ... ... ... | 0 | 3 | 2½ | „ | For windows. |
| 3902 9-10-90 ... | Handles ... | Brass, carriage door, with locks and plates, left hand ... ... | 0 | 3 | 0 | Each. | |
| 3505 24 -5-90 ... | Hasps and Staples | Iron 6″ ... ... ... ... ... ... | 0 | 0 | 6 | Each. | |
| 3505 24 -5-90 ... | Hooks ... | Jhilmill, wrought iron, for carriage venetians ... ... ... | 0 | 8 | 4 | ¾ Pairs. | |
| 3991 21-10-90 ... | Tiles ... | Porcelain, plain, for roof lamp reflectors ... ... ... | 0 | 4 | 8 | Each. | |
| | | „ with monogram „ ... ... ... ... | 0 | 5 | 0 | „ | |

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# CLASS E.

## ROLLING STOCK.

### (b).—COACHING AND GOODS STOCK.

(4)—India Rubber Fittings.

CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (4)—INDIA RUBBER FITTINGS.

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 3539 | 5 -6 -90 ... | Blocks, India rubber. | Vulcanized, for carriage bodies 9″ × 3″ × 1″ with $\frac{1}{16}$″ holes ... ... | 0 | 3 | 2 | Each. | Attock's Patent |
| 4164 | 19-11-90 | | ,, ,, ,, ,, 9″ × 3″ × 1″ × $\frac{1}{16}$″ holes ... ... | 0 | 3 | 3 | ,, | |
| 3410 | 14- 4-90 ... | | ,, ,, ,, ,, ... ... ... ... | 0 | 2 | 7 | ,, | |
| 3860 | 29- 9-90 ... | | ,, ,, ,, ,, ... ... ... ... | 0 | 1 | 10½ | ,, | |
| | | | ,, ,, ,, ,, ... ... ... ... | 0 | 2 | 0 | ,, | |
| 3410 | 14- 4-90 ... | Cushions, India rubber. | Vulcanized, for window sashes ... ... ... ... | 1 | 7 | 1 | % | |
| 3539 | 5- 6-90 | | ,, ,, glass panes, bottom ... ... ... ... | 1 | 13 | 4 | ,, | |
| | | | ,, ,, ,, ,, side ... ... ... ... | 0 | 16 | 8 | ,, | |
| 4164 | 19-11-90 | | ,, ,, glass panes, bottom ... ... ... ... | 1 | 13 | 4 | ,, | |
| | | | ,, ,, ,, ,, side ... ... ... ... | 0 | 16 | 0 | ,, | |
| 3483 | 20- 5-90 ... | | ,, ,, window sashes ... ... ... ... | 1 | 7 | 1 | ,, | |
| 3498 | 24- 5-90 ... | | ,, ,, ,, ,, ... ... ... ... | 1 | 5 | 0 | ,, | |
| 3318 | 24- 5-90 ... | | ,, ,, ,, ,, ... ... ... ... | 1 | 5 | 0 | ,, | |
| 3860 | 29- 9-90 ... | | ,, ,, ,, ,, ... ... ... ... | 1 | 9 | 2 | ,, | |
| 4164 | 29- 9-90 ... | | ,, ,, ,, ,, ... ... ... ... | 1 | 5 | 0 | ,, | |

CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (4)—INDIA RUBBER FITTINGS—*concld.*

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. | | | | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | | | | Amount. | | | Unit. | |
| | | | | £ | s. | d. | | |
| 3410 | 14-4-90 ... | Rings ... | Buffer ... ... ... ... ... ... | 0 | 14 | 6 | Each. | |
| 3496 | 24-5-90 ... | Springs ... | India rubber, for window sashes ... ... ... ... | 1 | 10 | 0 | % | |
| 3539 | 5 -6-90 ... | Tyres ... | India rubber, for wheels of luggage trucks ... ... ... | 0 | 9 | 7 | Each. | |
| 3453 | 20-5-90 ... | Washers ... | Vulcanized, India rubber, for Rendell's patent screw buffer ... ... | 0 | 2 | 0 | Each. | |
| 3460 | 29-8-90 ... | | ,, ,, ,, 6" diameter by 2" hole, 2" thick, for engine buffer... | 0 | 5 | 8 | ,, | |

# CLASS E.

## ROLLING STOCK.

### (*b*).—COACHING AND GOODS STOCK.

### (5)—Trimmings.

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## CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (5).—TRIMMINGS.

*Contracted for in 1890.*

| Contract number and date. | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|
| 3451 13- 5-90 ... | Buttons ... | Covered with rep ... ... ... ... ... | 0 | 1 | 5 | Gross. | |
| 3477 16- 5-90 | | Buff color, hide, for carriage cushions ... ... ... ... | 0 | 1 | 7 | „ | |
| | | Green morocco „ „ „ ... ... ... ... | 0 | 0 | 8 | „ | |
| 3311 1- 3-90 | Carpets ... | Dark green ground, fern pattern, 12′ 6″ × 6′ 0″ ... ... ... | 2 | 14 | 8 | Each. | Suitable for first class saloon carriage. |
| | | Plain, 5 frame, brussels, without border, to pattern 3145-2 but with darker ground. | 3 | 2 | 3 | „ | |
| 3445 8- 5-90 ... | Cloth. | Baize, green, for lamp shades, 2′ wide ... ... ... ... | 0 | 3 | 6 | L. yd. | |
| 3464 5- 5-90 ... | | Brown holland, 54″ wide, best ... ... ... ... | 0 | 0 | 10½ | „ | Weight 11¼ oz. per yard. |
| 3297 28 -2-90 ... | | Canvas, common, 36″ wide, plain without coloured stripes ... ... | 0 | 1 | 2½ | „ | |
| 3464 15- 5-90 ... | | „ „ 36″ wide ... ... ... ... | 0 | 0 | 8½ | „ | |
| 3429 6- 5-90 | | „ prepared for roofing, 19′ 0″ × 8′ 6″ ... ... ... | 2 | 5 | 0 | Piece. | |
| | | „ „ „ „ 19′ 6″ × 9′ 0″ ... ... ... | 2 | 8 | 9 | „ | For inspection carriage and brake vans. |
| 3451 13- 5-90 ... | | Carriage, rep, maroon, 54″ wide, all wool ... ... ... | 0 | 5 | 6 | L. yd. | |
| 3317 5- 3-90 ... | | Floor, 3′ wide ... ... ... ... ... | 0 | 2 | 9 | „ | Suitable for first and composite carriages. |
| 3418 26- 4-90 ... | | „ 3′ „ ... ... ... ... ... | 0 | 2 | 9 | „ | |
| 3570 12- 6-90 ... | | „ 22′ 4″ × 8′ 4″ ... ... ... ... ... | 3 | 5 | 0 | Piece. | |
| 4153 14-11-90 ... | | „ 22′ 4″ × 8′ 4″ ... ... ... ... ... | 4 | 0 | 0 | „ | |

CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (5).—TRIMMINGS—*contd.*

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 3332 | 11-3-90 | Hair, Horse | Curled and coiled | 8 | 8 | 0 | Cwt. | |
| 3636 | 1-7-90 | | " " " | 8 | 8 | 0 | " | |
| 3437 | 8-5-90 | Hides | Buffallo, buff colour, french grained, hand buffed, to average 56 square feet per hide. | 0 | 1 | 0 | Sq. foot. | Lion Brand. |
| 3631 | 30-6-90 | | Horse, white, to average 18 lbs. per hide | 0 | 1 | 6 | lb. | |
| 3431 | 13-5-90 | Lace | Seaming, to match rep | 0 | 0 | 2 | L. yd. | |
| 4051 | 30-10-90 | Lincrusta Walton | Mounted on cloth, 36′ × 1′ 7½″, of a pale buff colour, with monogram embossed on it, with a small pattern—suitable for the roof of 1st class carriages. | 1 | 6 | 9 | Piece. | |
| 3436 | 8-5-90 | Log Line | ½″ diameter, in 1 lb. balls | 0 | 1 | 0 | lb. | |
| 3482 | 20-5-90 | Netting | Silk, cord, maroon colour, 10″ wide and 1″ mesh | 0 | 1 | 8 | L. yd. | |
| 4032 | 25-10-90 | | " " " " 9″ mesh in 25-yard lengths | 0 | 1 | 0½ | " | For hat rack. |
| 3338 | 13-3-90 | Pins | Wire, gimp, trimming, black ¼″ | 0 | 0 | 6 | lb. | |
| | | | " " " " ¾″ | | | | | |



CLASS OF STORES. E.—ROLLING STOCK, SUB-HEAD (*b*).—COACHING AND GOODS STOCK (5).—TRIMMINGS—*concld.*

*Contracted for in 1890.*

| Contract number and date. | | Articles. | Details. | Rate—Free on Board. Amount. £ | s. | d. | Unit. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 3571 | 12-6-90 | Skins | Morocco, grained, maroon colour, cowhide, to average 46 sq. feet per hide | 0 | 1 | 0 | Sq. ft. | |
| 3879 | 3-10-90 | Spring | Spiral, steel, copper plated, 6″ in height at rest, No. 10 S. W. G., for 1st class carriage seats. | 0 | 0 | 1½ | Each. | |
| 3313 | 1-3-90 | Tacks. | Cut, black, flat heads, sharp points, fine, ½″ | 0 | 0 | 2½ | lb. | |
| | | | " " " " " " " ¾″ | 0 | 0 | 2 | " | |
| | | | Cut, tinned " " " " " ½″ | 0 | 0 | 3½ | " | |
| 3896 | 8-10-90 | | Flemish, black, fine, ½″ | 5 | 9 | 0 | Cwt. | |
| | | | " " " ¾″ | 3 | 7 | 0 | " | |
| 3435 | 8-5-90 | Thread. | Linen, black, No. 35, 3 cord, in ¼ oz. skeins | 0 | 2 | 2 | lb. | |
| 3593 | 19-6-90 | | Linen, dark yellow, machine, sewing, on 4 oz. reels No. 18 | 0 | 1 | 11 | " | |
| | | | " white " " 4 oz. " " | 0 | 2 | 2 | " | |
| 3541 | 5-6-90 | | Flax, fine, shoe, in 2 oz. balls and 3 lb. papers | 0 | 1 | 2½ | " | |
| 3897 | 8-10-90 | | " " sewing, in 2 oz. balls and 3 lb. papers | 0 | 1 | 2½ | " | |
| 3691 | 8-9-90 | | " " shoe 2 oz. " " 3 lb. " | 0 | 1 | 2½ | " | |
| 3436 | 8-5-90 | Twine | Sailmakers | 0 | 1 | 2 | lb. | |

# Appendix A.

*Detail of one set of duplicates for compound engines and tenders six wheels (coupled) 5′ 6″ gauge, as supplied under Contract No. 4190, dated 16th December 1890, for the East Coast Railway*—vide *page 1.*

| Description of Stores. | Quantity. | Rate each delivered F. O. B. in the Port of London. | Port of Liverpool or Birkenhead. | Port of Glasgow. |
|---|---|---|---|---|
| | | £ s. d. | £ s. d. | £ s. d. |
| *Engine.* | | | | |
| Engine frames ... ... ... | 1 pair | 47 0 0 | 46 0 0 | 44 0 0 |
| Wheels and axles ... ... ... | 1 set | 380 0 0 | 370 0 0 | 360 0 0 |
| Tyres ... ... ... | 1 „ | 70 0 0 | 68 0 0 | 66 0 0 |
| Axles ... ... .. ... | 1 „ | 139 0 0 | 137 0 0 | 135 0 0 |
| Crank pins ... ... ... ... | 1 „ | 9 0 0 | 8 15 0 | 8 10 0 |
| Bearing springs for (Bissel), leading, driving and trailing wheels. | 3 sets | 72 0 0 | 71 0 0 | 70 0 0 |
| Axle boxes, complete ... ... ... | 1 set | 57 0 0 | 56 0 0 | 55 0 0 |
| Connecting rods ... ... ... | 1 „ | 39 0 0 | 38 10 0 | 38 0 0 |
| Coupling rods ... ... ... | 1 „ | 46 0 0 | 45 10 0 | 45 0 0 |
| Slide bars ... ... ... ... | 1 „ | 50 0 0 | 49 0 0 | 48 0 0 |
| Cylinders ... ... ... ... | 1 „ | 106 0 0 | 103 0 0 | 100 0 0 |
| High pressure pistons ... ... ... | 2 | 7 0 0 | 6 10 0 | 6 0 0 |
| Low pressure pistons ... ... ... | 2 | 11 0 0 | 10 10 0 | 10 0 0 |
| Piston, rods, 4 high and 2 low pressure ... | 6 | 17 0 0 | 16 10 0 | 16 0 0 |
| Valve gear ... ... ... ... | 1 set | 68 0 0 | 67 0 0 | 66 0 0 |
| Intermediate draw gear ... ... ... | 1 „ | 13 10 0 | 13 0 0 | 12 10 0 |
| Draw gear for front of engine ... ... | 1 „ | 7 10 0 | 7 5 0 | 7 0 0 |
| „ „ „ back of tender ... ... | 1 „ | 7 10 0 | 7 5 0 | 7 0 0 |
| Buffers ... ... ... | 4 | 17 0 0 | 16 10 0 | 16 0 0 |
| Injectors ... ... ... ... | 2 | 37 0 0 | 36 10 0 | 36 0 0 |
| Clack boxes ... ... ... ... | 2 | 11 0 0 | 10 15 0 | 10 10 0 |
| Pressure gauges ... ... ... | 6 | 20 10 0 | 20 5 0 | 20 0 0 |
| Spiral safety valve springs ... ... | 2 | 1 0 0 | 1 0 0 | 1 0 0 |
| Boiler tubes and ferrules ... ... | 2 sets | 460 0 0 | 455 0 0 | 450 0 0 |
| Fire bars ... ... ... ... | 10 sets | 55 0 0 | 50 0 0 | 45 0 0 |
| Gauge glasses and India-rubber rings ... | 5 and 10 gross of each. | 11 0 0 | 10 10 0 | 10 0 0 |
| Spectacle glasses ... ... ... | 10 | 3 10 0 | 3 5 0 | 3 0 0 |
| Lamps ... ... ... ... | 3 sets | 21 0 0 | 20 10 0 | 20 0 0 |
| Steam brake gear ... ... ... | 1 set | 58 0 0 | 55 0 0 | 52 0 0 |
| *Boiler.* | | | | |
| Boiler barrel plates ... ... ... | 1 set | 111 0 0 | 108 0 0 | 105 0 0 |
| Front tube plate ... ... ... | 1 | 16 10 0 | 15 15 0 | 15 0 0 |
| Copper tube plates ... ... ... | 2 | 78 0 0 | 76 10 0 | 75 0 0 |
| Copper tube and side plate ... | 1 | 75 0 0 | 73 10 0 | 72 0 0 |
| Copper back plate ... ... ... | 1 | 21 0 0 | 20 10 0 | 20 0 0 |
| Copper rod 1¼″ diameter ... ... ... | 400 feet | 54 0 0 | 53 0 0 | 52 0 0 |
| Roof stays ... ... ... ... | 100 | 16 0 0 | 15 10 0 | 15 0 0 |
| | | 2,2 13 0 0 | ... | 2,111 10 0 |

## Appendix A.—concld.

| Description of Stores. | Quantity. | Rate each delivered F. O. B. in the | | |
|---|---|---|---|---|
| | | Port of London. | Port of Liverpool or Birkenhead. | Port of Glasgow. |
| | | £ s. d. | £ s. d. | £ s. d. |
| Brought forward ... | | 2,213 0 0 | | 2,111 10 0 |
| *Tender.* | | | | |
| Wheels and axles ... ... ... | 1 set | 135 0 0 | 130 0 0 | 125 0 0 |
| Tyres ... ... ... ... | 1 ,, | 41 10 0 | 39 10 0 | 37 10 0 |
| Axles ... ... ... ... | 4 | 35 0 0 | 33 10 0 | 32 0 0 |
| Axle boxes with brasses, complete ... ... | 1 set | 42 0 0 | 41 0 0 | 40 0 0 |
| Bearing springs ... ... ... | 2 sets | 66 0 0 | 64 0 0 | 62 0 0 |
| Buffers ... ... ... ... | 4 | 17 0 0 | 16 10 0 | 16 0 0 |
| Steam brake gear ... ... ... | 1 set | 70 0 0 | 67 10 0 | 65 0 0 |
| Tender tank, and well plates ... ... | 1 ,, | 90 0 0 | 80 0 0 | 70 0 0 |
| | | 2 709 10 0 | ... | 2,559 0 0 |



## Appendix B.

*Copy of Packing Account, dated 26th April 1886, of S. S. "* Clan Macgregor *" showing the measurement and weight of packages containing parts of heavy L class Engine, with spare parts (5'-6" gauge), Makers—Messrs. Neilson and Co., Glasgow.*

| Description and number of packages. | Description of Stores, showing Contents of Packages in detail. | Measurement of each package. | Net weight. | Gross weight. |
|---|---|---|---|---|
| | | Ft. In. Ft. In. Ft. In. | Tons. Cwt. Qrs. lbs. | Tons. Cwt. Qrs. lbs. |
| 6 Pieces | Each consisting of 1 locomotive boiler and frame, boiler with tubes complete, dome seat with bolts and nuts, regulator long rod, 2 clack box seats with studs and nuts, 1 mud collector seat with studs and nuts, steam blower cock seat studs and nuts, 4 sand box seat studs and nuts, fire-box with safety valve seat, studs and nuts, 6 fire-bar carrier brackets, 8 brick arch carrier studs, 8 asphan carrier studs with cotters, 12 wash out plug seat studs and nuts, 2 scum cock seat studs and nuts, regulator stuffing box studs and nuts, 4 glass gauge cock seat studs and nuts, 1 mud door, 12 handrail bracket studs and nuts, 2 sand-box handle studs and nuts, 2 flame plate studs, 14 clothing studs, 1 fire door frame and protection plate, smoke box with door and crossbar, cylinder steam and exhaust pipes, 2 lubricator pipe covers, bolts and nuts, bogie centre covering plate, 5 mud plugs, 1 blower pipe, frame with hornblocks and clips, 2 cylinders with front and hind covers, 2 front clothing covers, 2 top clothing covers, 2 steam chest covers with studs and nuts, 2 valve spindle guides with oil cups, 2 compensating beams and carriers, 2 beam pins and 4 spring link pins, 8 spring hanger carriers and pins, 2 reversing shaft carriers, 4 brake block hanger carriers with cotters and ferrules, 2 slide bar brackets, cast iron platform with brake cylinder and cover, 2 platforms, 2 slide bar covering plates, 2 front fall plates with handles, front buffer plate with buffer guide, hind buffer plate with 8 fall plate screws, 2 expansion clips with bolts and nuts, 1 fire-box steadying stay with studs and nuts ... ... | 25 9 9 6 9 1 | ... ... ... ... | 20 17 2 0 |
| 6 ,, | Each consisting of 1 bogie frame with centre and pin, beams and springs ... ... ... | 7 9 5 2 2 4 | ... ... ... ... | 1 18 0 0 |
| 6 ,, | Each consisting of 1 pair of bogie wheels on axle, complete ... | 6 3 3 0 3 0 | ... ... ... ... | 1 1 0 0 |
| 6 ,, | Each consisting of 1 pair of bogie wheels on axle, complete ... | 6 3 3 0 3 0 | ... ... ... ... | 1 1 0 0 |
| 6 ,, | Each consisting of 1 pair of leading wheels on axle, with crank pins, complete ... ... ... | 7 2 4 5 4 5 | ... ... ... ... | 2 12 2 0 |
| 6 ,, | Each consisting of 1 pair of driving wheels on axle, with crank pins and eccentric pulleys, complete ... | 8 0 4 5 4 5 | ... ... ... ... | 2 16 2 0 |
| 6 ,, | Each consisting of 1 pair of trailing wheels on axle, with crank pins, complete ... ... ... | 7 2 4 5 4 5 | ... ... ... ... | 2 12 2 0 |
| 6 ,, | Each consisting of 1 cowcatcher with blow-off pipe guide ... | 9 1 3 1 3 8 | ... ... ... ... | 9 4 0 0 |
| | Carried over ... | ... ... ... ... ... ... | ... ... ... ... | 33 3 0 0 |

## Appendix B.—contd.

| Description and number of packages. | Description of Stores, showing Contents of Packages in detail. | Measurement of each package. Ft. | In. | Ft. | In. | Ft. | In. | Net weight. Tons | Cwt. | Qrs. | lbs. | Gross weight. Tons. | Cwt. | Qrs. | lbs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Brought over ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 33 | 3 | 0 | 0 |
| 6 Pieces | Each consisting of 1 ashpan with ash dropper door frame, and 4 carriers for ashpan perforated doors, 1 bracket for brake releasing springs, 2 jet pipe clips and screws | 6 | 1 | 4 | 8 | 1 | 10 | ... | ... | ... | ... | 0 | 4 | 2 | 0 |
| 6 Cases | Each containing 1 head lamp, 2 side lamps, 2 hand lamps, 1 cab roof lamp, 1 motion lamp, 2 gauge lamps, 1 gong with seat, bolts and nuts, 1 oil bottle, 1 oil can, 1 oil feeder, 1 pressure gauge with cock and pipe, 4 cab window glasses, 2 gauge glasses and india-rubber washers, 1 hank of worsted and copper wire, 1 parcel split and taper pins ... | 4 | 5 | 2 | 5 | 2 | 5 | ... | ... | ... | ... | 0 | 2 | 2 | 0 |
| 6 „ | Each containing 2 connecting rods complete, 4 coupling rods complete, 2 valve connecting rods and 4 pins, 2 slide bars ... ... | 8 | 8 | 2 | 5 | 1 | 9 | ... | ... | ... | ... | 1 | 0 | 0 | 0 |
| 6 „ | Each containing 1 reversing shaft with levers and 2 pins, 2 reversing links, 2 reversing dies, 1 reversing handle and spring catch, 1 reversing sector and plate with pin, bolts, and nuts, 4 eccentric straps and rods with pins, 4 lifting links, 2 swing links and 2 pins, 2 swing link carriers, 2 slide valves, 2 slide valve buckles, 2 valve spindles and 8 brass nuts, 2 pistons and rods, 2 cross-heads, 2 pins, 2 cotters, 4 slide bar bolts and nuts, 4 slide bar set screws, 2 glass gauge lampholders, 1 motion lampholder, 2 sand pipe guides, 1 sand box rod guide, 2 steam blower rod guides, 6 boiler handrail pillars, 2 cab handrail pillars with bolts and nuts, 2 cab roof supports with cotters, bolts and nuts, 2 injector feed-cock spindles and wheels, 2 injector overflow cock spindles and handles, 2 injector steam-cock spindles and handles, 1 whistle steam-cock spindle and handle, 1 regulator handle, 2 smoke box door handles and pin, 1 smoke box door handrail and 2 pillars, 16 gland nuts, 1 ashpan jet-cock spindle and handle ... ... ... | 6 | 3 | 3 | 6 | 2 | 1 | ... | ... | ... | ... | 1 | 8 | 0 | 0 |
| 6 „ | Each containing 1 cab roof complete, 2 cab roof gusset stays, 1 R. H. cab side with tool box and name-plate, 1 L. H. cab side with name-plate, 2 footsteps and 2 stays, with clips for overflow pipes, bolts and nuts, 1 complete set of bolts and nuts for cab ... ... | 9 | 8 | 5 | 7 | 2 | 2 | ... | ... | ... | ... | 0 | 18 | 2 | 0 |
| 6 „ | Each containing 5 fire-box clothing sheets, 8 boiler clothing sheets, 2 cylinder clothing sheets, 1 dome cover, 1 set of (3) fire-box beadings, 1 cab roof lamp cover, 1 dome with wood lagging, 11 clothing straps with bolts and nuts, 20 pieces crinoline clothing hoops, 2 expansion clip covers, 1 regulator baffle plate, 2 bogie wheel splashers, 1 parcel clothing screws ... | 5 | 10 | 5 | 6 | 5 | 3 | ... | ... | ... | ... | 1 | 4 | 2 | 0 |
| | Carried over ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 38 | 1 | 0 | 0 |



## Appendix B.—contd.

| Description and number of packages. | Description of Stores, showing Contents of Packages in detail. | Measurement of each package. Ft. | In. | Ft. | In. | Ft. | In. | Net weight. Tons. | Cwt. | Qrs. | lbs. | Gross weight. Tons. | Cwt. | Qrs. | lbs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Brought over ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 38 | 1 | 0 | 0 |
| 6 Cases | Each containing 1 chimney with bolts and nuts complete, 1 spark arrester, 1 head-lamp carrier with studs, 2 side-lamp holders with bolts and nuts, 2 front buffers with wood liners, bolts and nuts, 2 balance blocks with bolts and nuts, 1 set of (58) fire bars, 1 centre and 2 end fire bar carriers, 1 fire door with chain, 1 deflector plate, 1 flame plate, 1 coal shovel, 2 ashpan damper doors and 4 carriers, 2 ashpan perforated doors, 1 ashpan sector with bolts and nuts, 1 ash dropper door in 2 pieces, 1 ash dropper door handle and 5 rods, 1 ash dropper bell crank and carrier ... | 6 | 7 | 2 | 11 | 2 | 11 | ... | ... | ... | ... | 1 | 8 | 3 | 0 |
| 6 „ | Each containing 1 sand box with valves and levers, 2 sand box saddle brackets with studs and nuts, 2 ball and socket and unions for engine, 2 injectors with feed and overflow cocks and 1 ashpan jet cock, 2 injector steam cocks, 4 glass gauge cocks, 2 clack boxes with bolts and nuts complete, 1 steam brake cock and handle, 1 scum cock and handle, 1 blow-off cock, 1 steam blower cock and seat, 4 cylinder water cocks and levers, 2 steam chest cocks and levers with pipes and clips, 1 regulator stuffing box and gland with studs and nuts, 1 regulator rod end with nuts and washer, 2 piston glands and 2 collar bushes, 2 valve spindle glands, 2 cylinder lubricators, 2 steam chest lubricators and pipes 4 bogie oil cups, 6 oilboxes and pipes for axle boxes, 1 whistle complete, 6 wash-out plugs and caps, 14 mud plugs, 4 slide bar lines, 2 acorns for cylinder covers, 6 handrail pillar sockets for boiler, 1 steam blower rod guide seat, 1 steam brake valve, 1 pipe coupling, 1 sand box handle sector, 1 exhaust pipe top (extra) ... ... | 3 | 5 | 3 | 5 | 3 | 5 | ... | ... | ... | ... | 0 | 13 | 1 | 0 |
| 6 „ | Each containing 6 bearing springs with 12 hangers and screws, 4 brake blocks with hangers and pins, 1 brake cylinder piston with rod and gland, 1 brake connecting rod with releasing springs and eye bolts, 1 brake shaft with 2 cotters, 2 brake tie rods with nuts and ferrules, 2 brake adjusting screws and nuts, 1 regulator with valves and short rod, 1 safety valve complete, 1 hind draw bar, 1 front draw bar with volute spring and washer, 1 front draw shackle with hook and links, 1 hind draw pin with cotter, 2 hind draw safety pins with cotters, 1 20-ton traversing screw jack with ratchet and lever ... ... ... | 7 | 5 | 3 | 6 | 2 | 1 | ... | ... | ... | ... | 1 | 11 | 0 | 0 |
| | Carried over ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 41 | 14 | 0 | 0 |

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## Appendix B.—contd.

| Description and number of packages. | Description of Stores, showing Contents of Packages in detail. | Measurement of each package. | | | | | | Net weight. | | | | Gross weight. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. | In. | Ft. | In. | Ft. | In. | Tons. | Cwt. | Qrs. | lbs. | Tons. | Cwt. | Qrs. | lbs. |
| | Brought over ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 41 | 14 | 0 | 0 |
| 6 Cases | Each containing 1 set of wood lagging for boiler and cylinders, 2 boiler handrails with 2 pillars and nuts, 1 sand box rod and handle, 1 steam blower rod with lever and handle, 1 reversing rod and 2 pins, 1 fall plate with hinges, 2 handrails with 8 pillars and nuts for tender tank sides, 1 handrail with 2 pillars and nuts for tender tank back end, 2 long brake rods for tender, 2 ashpan rods, 2 ashpan handles, 1 ashpan handle spring box, 1 ashpan intermediate shaft with carrier, 1 cylinder water cock shaft with carriers, bolts and nuts, 1 cylinder water cock handle, 1 long rod and 7 short rods, 1 cylinder water cock rod guide, 1 cylinder water cock rod lever, 1 blow-off cock spindle and handle, 1 blow-off pipe clip, 2 pieces crinoline clothing hoops, 2 feed pipe carriers, 2 feed pipe carrier stays, 4 delivery pipe carriers, 2 injector spindle brackets 2 cowcatcher stays with pins, bolts and nuts, 12 bolts and nuts for cowcatcher to buffer beam, 1 set of pipes consisting of 6 delivery, 4 steam, 2 feed, 2 overflow, 1 blower, 1 scum, 3 steam brake, 2 glass gauge, 2 blow-off, 4 sand, 4 internal steam, and 1 ashpan jet pipe in 3 pieces, 1 union and nuts, 1 set of fire-irons consisting of 1 long shovel, 1 rake, 1 dart, 1 clinker shovel, 1 pricker, 1 tube plug rod, 1 tube brush rod, 1 crowbar | 16 | 11 | 2 | 2 | 2 | 4 | ... | ... | ... | ... | 0 | 16 | 3 | 0 |
| 6 „ | Each containing 6 axle boxes with swing links and pins for engine, 6 axle boxes with covers and brasses for tender, 4 axle boxes with covers for engine bogie, 1 bogie centre pivot with bolts and nuts, 1 bogie centre pivot brass washer, 1 complete set of 16 screw keys, 1 large and 1 small monkey wrench, 1 hand, 1 heavy, 1 lead, and 1 copper hammer, 6 files and 3 handles, 6 chisels, 1 cotter punch, 1 large and 1 small pin punch, 1 footplate brush, 1 tube scraper, 1 tube brush, 5 padlocks and keys ... ... | 6 | 5 | 2 | 11 | 2 | 2 | ... | ... | ... | ... | 1 | 9 | 2 | 0 |
| 6 „ | Each containing (Tender Details) 6 bearing springs, 12 spring hangers and 12 pins, 6 bearing spring pillars, 2 hind buffers complete, 1 hind draw hook with shackle, volute spring, and washer, 2 hind draw chains and hooks, 2 front safety links, 2 front safety pins and cotters, 6 brake blocks and hangers, 6 brake hanger pins, 1 brake shaft, 3 brake tie rods and washers, 2 brake rods and 2 pins, 1 brake screw with rod and handle, 1 brake screw pillar with bolts and nuts, 2 copper feed pipes with bolts and nuts, 2 ball and socket union pipes and feed cocks with bolts and nuts, 2 feed cock spindles and handles with levers and guides, bolts and | | | | | | | | | | | | | | |
| | Carried over ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 44 | 0 | 1 | 0 |



## Appendix B.—concld.

| Description and number of packages. | Description of Stores, showing Contents of packages in detail. | Measurement of each package. | | | | | | Net weight. | | | | Gross weight. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. | In. | Ft. | In. | Ft. | In. | Tons. | Cwt. | Qrs. | lbs. | Tons. | Cwt. | Qrs. | lbs. |
| | Brought over ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 44 | 0 | 1 | 6 |
| | nuts, 2 feed pipe hangers and 2 stays, bolts and nuts, 2 handrail pillars with tops and nuts, 2 handrail pillar brackets with bolts and nuts, 4 footsteps and 2 stays with bolts and nuts 2 footstep handles, 2 lampholders with bolts and nuts, 2 tool box lids, 1 name plate, 1 water gauge pipe top, 1 set of (6) footboard jointing plates with bolts and nuts ... ... ... | 7 | 11 | 3 | 2 | 2 | 8 | ... | ... | ... | ... | 1 | 16 | 3 | 0 |
| 6 Cases | Each containing 1 cab roof for tender complete, 2 cab sides with bolts and nuts, 1 cab back plate with bolts and nuts, 2 cab roof brackets with bolts and nuts, 4 cab roof pillars with bolts and nuts, 14 footboard carriers, bolts and nuts ... ... ... | 9 | 7 | 5 | 3 | 1 | 5 | ... | ... | ... | ... | 0 | 12 | 0 | 0 |
| 6 Pieces | Each consisting of 1 tender tank with sieve and lid, hind lamp platform, 16 wood pillar brackets, 1 hind and 2 front tool boxes, 4 lifting plates, "feed well" packed in manhole of tank, water gauge pipe packed in hind tool box ... | 15 | 4 | 9 | 6 | 6 | 6 | ... | ... | ... | ... | 3 | 17 | 0 | 0 |
| 6 „ | Each consisting of 1 tender frame with hornblocks and clips, 6 brake hanger carriers, 2 brake shaft carriers, 12 spring hanger brackets, 6 spring pillar guides, 1 front intermediate spring with draw pin and cotter, 2 intermediate buffers with shoes, hind buffer plate with draw hook guide, bolts and nuts for tank to frame ... ... | 15 | 10 | 9 | 6 | 3 | 3 | ... | ... | ... | ... | 3 | 16 | 2 | 0 |
| 6 „ | Each consisting of 1 pair of leading tender wheels on axle, complete .. | 8 | 2 | 3 | 10 | 3 | 10 | ... | ... | ... | ... | 1 | 8 | 3 | 0 |
| 6 „ | Each consisting of 1 pair of centre tender wheels on axle, complete ... | 8 | 2 | 3 | 10 | 3 | 10 | ... | ... | ... | ... | 1 | 8 | 3 | 0 |
| 6 „ | Each consisting of 1 pair of trailing tender wheels on axle, complete ... | 8 | 2 | 3 | 10 | 3 | 10 | ... | ... | ... | ... | 1 | 8 | 3 | 0 |
| | Total Gross Weight of 1 heavy L class Engine and Tender ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 58 | 8 | 3 | 0 |

## Appendix C.

*Copy of Packing Account dated* *of S. S.* "Princess Louise" *showing measurement and weight of packages containing parts of E class engine, (metre gauge): Makers—Vulcan Foundry Co.*

| Description and number of packages. | Description of Stores, showing Contents of Packages in detail. | Outside measurement of each package. | | | Net weight. | | | | Gross weight. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. In. | Ft. In. | Ft. In. | Tons. | Cwt. | Qrs. | lbs. | Tons. | Cwt. | Qrs. | lbs. |
| 1 Piece | Each consisting of one Locomotive Boiler with 1 set of brass tubes in place, dome seat, bottom part of regulator pipe, regulator rod and small lever, safety valve seating, 2 clack box seats, mud collector 1 cover and all studs, smoke box with door and cross bar, 2 steam pipes, 1 T pipe and main steam pipe in boiler, 1 exhaust pipe in parts and 6 brass mud plugs in tube plate. Fire box with three mud doors in place and 2 carriers for fire bars; studs on fire-box for mountings and cleading sheets, also studs for safety valve pillar, 9 longitudinal stays and 2 copper steam pipes in boiler, 2 expansion stay angle irons. Frame with horn blocks and stays complete, leading and driving spring link carriers and trailing spring with carriers complete, 2 angle irons for reversing shaft brackets; 1 C. Iron footplate, back buffer plate, 2 side bar brackets, 2 platform supports, 2 footstep plates and stays, platforms, front buffer beam, 1 draw box and India rubber washers, 1 pair cylinders and covers cased with wood and iron sheeting ... | 18 | 9 | 7 0 6 9 | 22 | 6 | 1 | 0 | 22 | 16 | 3 | 0 |
| 1 „ | Each consisting of 1 pair leading wheels on axle with crank pins and journals cased with wood ... | 4 | 6 | 3 2 3 2 | 2 | 13 | 0 | 10 | 2 | 13 | 1 | 6 |
| 1 „ | Each consisting of 1 pair driving wheels on axle with crank pins and journals cased with wood ... | 5 | 4 | 3 2 3 2 | 2 | 13 | 1 | 0 | 2 | 13 | 2 | 8 |
| 1 „ | Each consisting of 1 pair trailing wheels on axle with journals cased with wood ... ... | 3 | 11 | 2 3 2 3 | 1 | 5 | 1 | 13 | 1 | 5 | 2 | 0 |
| 1 Case | Each lined with tin, containing 2 connecting and 2 coupling rods complete, 2 slide bars with 2 liners and bolts, 4 eccentric rods and 2 pins, 4 eccentric sheaves complete and 4 eccentric straps and bolts, 1 pump rod, eccentric sheave with straps and bolts complete, 1 reversing shaft and 2 pins, 1 C. I. balance weight and pin, 2 brackets for reversing shaft complete, 4 lifting links and 2 pins, expansion links, 2 valve rods and 2 pins, 2 valve spindles and 8 brass nuts, 4 small spring pillars, 1 regulator handle, 2 cross heads, and brasses complete, 2 pistons and rods, 2 spindles and 2 handles for injector, 1 whistle rod and 2 brass washers, 1 dart with 2 handles for smoke box door, 4 handrail brackets and 4 sockets, 2 small brackets and 2 nuts, 2 hand rail pillars and 2 nuts, 1 cylinder cock shaft, 3 levers and 3 pins, 2 short and 2 long links, 1 spindle and 2 levers, 1 safety valve pillar with spiral spring, valves, lever and links complete. | | | | | | | | | | | |
| | Carred over ... | ... | ... | ... ... ... ... | ... | ... | ... | ... | 29 | 9 | 0 | 14 |



## Appendix C.—*contd.*

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| Description and number of packages. | Description of Stores, showing Contents of Packages in detail. | Outside measurement of each package. | | | Net weight. | | | | Gross weight. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. In. | Ft. In. | Ft. In. | Tons. | Cwt. | Qrs. | lbs. | Tons. | Cwt. | Qrs. | lbs. |
| | Brought forward ... | ... | ... | ... ... ... | ... | ... | ... | ... | 29 | 9 | 0 | 14 |
| | 1 small carrier for blower pipe, 1 small neck regulator pipe, spring and bolts and brass valve, 1 short stroke pump ram, air vessel, brass gland and bolts complete, 1 rod for regulator valve and 2 pins ... | 7 | 1 | 2 10 2 1½ | 3 | 7 | 1 | 16 | 3 | 17 | 0 | 1 |
| 1 Case | Each containing 1 ashpan with doors complete, and 1 small lever, 26 bolts and nuts for dome flange, 1 dome and stud, 21 W. iron fire bars, 4 W. iron splashers and bolts, 1 fire door complete, 1 central buffer and draw bar, chain and pin, 2 leading and 2 driving springs, 8 spring links, 1 draw pin and 2 safety pins, 1 rod for ashpan, 2 life guards and 4 bolts, 2 footsteps and 8 bolts, 1 baffle plate and 2 set screws, 8 set screws and washers for cleading sheets ... | 5 | 6 | 3 1½ 2 4 | 2 | 10 | 1 | 21 | 2 | 19 | 1 | 4 |
| 1 „ | Each lined with tin containing 2 brass slide valves, 2 buckles and 4 springs, 2 valve rod guides, 2 set screws and 8 bolts, 2 brass clack boxes with 12 bolts, 2 brass ball and socket pins, 2 brackets and bolts, 1 stuffing box and gland, 2 studs and centre spindles for regulator rod, 1 Friedman's injector, 2 small cocks, and 2 brackets and bolts, 2 piston rod glands and bushes, 4 valve spindle glands and 4 bushes, 2 sand-box valves, 2 flanges, 2 bell crank levers and 2 pins, 4 brass piston rings, 2 Roscoe's lubricators, 2 Furness lubricators, 1 whistle, nut and lever, 2 brass mud plugs and seats, 2 glass gauge cocks, 2 seats and 2 coupling nuts, 2 water cocks and 2 seats, 4 cylinders and 2 steam chest cocks and 6 levers and pins, 4 brass syphons and 4 small copper pipes and 2 brackets for valve spindles and piston rods, 6 brass mud plugs, 1 brass elbow and nut for jet pipe, 1 mud cock, 1 small bracket, 1 lever and handle complete, 2 straight pipes for inside of dome, 3 W. iron clips and 6 bolts for mud pipe pump and injector delivery pipe, 3 copper lubricating pipes and 6 brass nuts, 2 C. iron shells for protecting small lubricating pipes, 1 steam cock for injector and spindle, 1 blower cock and spindle | 4 | 0 | 2 1 1 10½ | 0 | 15 | 2 | 25 | 1 | 1 | 1 | 14 |
| 1 „ | Each containing 1 dome, 3 parts of mounting and 2 copper pipes for back of fire-box, 1 sheet for back plate of fire-box, 8 sheets for barrel and fire-box, 3 belts for barrel and fire-box belts with 5 bolts, 1 set of crinoline rings, 4 straight pieces, 2 bent strips and 2 angle pieces for corners of fire-box, 1 cylinder mounting for safety valve seat ... | 3 | 5 | 3 5 4 5 | 0 | 14 | 1 | 3 | 1 | 3 | 1 | 9 |
| 1 „ | Each containing wood lagging for boiler, fire-box and dome barrel, 2 long handrails, 1 rod for cylinder cock gear, 2 C. Iron sand-boxes | | | | | | | | | | | |
| | Carried over ... | ... | ... | ... .. .., ... | ... | ... | ... | ... | 38 | 10 | 0 | 14 |

## Appendix C.—*contd.*

| Description and number of packages. | Description of Stores, showing Contents of packages in detail. | Outside measurement of each package. | | | | | | Net weight. | | | | Gross weight. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. | In. | Ft. | In. | Ft. | In. | Tons. | Cwt. | Qrs. | lbs. | Tons. | Cwt. | Qrs. | lbs. |
| | Brought forward ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 38 | 10 | 0 | 14 |
| | and bolts, with 2 brass name-plates on, 1 blower pipe with 2 brass nuts, 1 long tube cleaner, 1 pet cock rod, 3 sand box rods, 1 cylinder cock rod, 1 pipe for mud cock, 2 injector steam pipes with 2 brass nuts, 3 suction and delivery pipes and 4 bolts, 1 funnel and pipe, 1 pipe for glass gauge cock, 2 pump suction pipes and one brass nut, 1 pump delivery pipe, pet cock, small pipe and lever, 2 sand pipes 4 brackets and 6 bolts, 1 long reversing rod and 2 pins, 2 long reversing links for tender brake ... | 14 | 7½ | 1 | 11 | 1 | 10 | 1 | 3 | 0 | 26 | 1 | 14 | 0 | 17 |
| 1 Case | Each containing cab roof lined with wood, 2 cab fish plates, 2 sides of cab and one front plate, 4, ¾" bolts, 22, ½" bolts and 6, ⅝" bolts for bolting cab to platform, 75, ⅜" bolts for sides and roof of cab, 2 cab doors, 1 small case containing 4 brass rings for eye glasses, 2 brass knobs and 2 handles, 4 small brass handles, and 4 swivels for eye-glass frames, 1 small case containing 4 eye-glasses, 1 smoke box mounting and 7 pieces of teak for covering engine footplate ... .. | 7 | 11 | 7 | 7 | 1 | 11 | 1 | 12 | 1 | 21 | 2 | 12 | 3 | 26 |
| 1 „ | Each containing 1 chimney and bolts, 1 plate and 4 bolts for carrying lamp, 2 leading, 2 driving, and 2 trailing axle boxes complete, 2 sliding covers for trailing axle boxes, 4 thin W. Iron covers for axle boxes, 1 ten-ton traversing screw-jack and bottom handle, 1 longitudinal strip and all screws for crinoline bolts, 1 sector plate and quadrant, 3 small levers and 2 bolts complete, 1 reversing sector plate and quadrant, lever and bolts complete, 1 fall plate, 2 hinges and 4 set screws. Tools :—1 rake, 1 dart, 1 pricker, 1 clinker shovel, 1 long and 1 short shovel, 1 tube plugging iron, 1 long pinch bar, 6 single spanners, 1⅛", 1⅛", 1¼", ¾", ⅞", and ⅝"ths 4 double spanners, 1¼" and 1⅛," 1" and ½," ⅝ and ⅞," ½" and ⅝", 2 flat and 1 cross cut chisel, 1 cotter drift, and 2 pin punches, 1 copper and 1 tin hammer, 1 hand and 1 quarter hammer, 2 monkey wrenches, 10 and 14 inches 2 flat files, 14 and 15 inches bastard, 1-14 inch half round bastard and 1 round bastard, 1 hand brush, 1 half gallon oil can, 1 long oil feeder and 1 pint oil can ... | 7 | 6 | 3 | 0½ | 2 | 3½ | 1 | 18 | 3 | 1 | 2 | 9 | 0 | 20 |
| 1 „ | Each lined with tin, containing 1 head lamp and brackets and bolts, 2 side lamps with red lights, 2 brackets and 4 bolts, 2 hand lamps, 2 gauge lamps and 1 small bracket ; 1 small case containing 1 pressure gauge, 1 pipe and 2 nuts, 14 spare gauge glasses, and 28 india rubber rings ... | 3 | 7½ | 3 | 1½ | 2 | 3 | 0 | 2 | 3 | 16 | 0 | 10 | 0 | 23 |
| | Carried over ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 45 | 16 | 2 | 16 |



## Appendix C.—*concld.*

| Description and number of packages. | Description of Stores, showing Contents of packages in detail. | Outside measurement of each package. | | | | | | Net weight. | | | | Gross weight. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. | In. | Ft. | In. | Ft | In. | Tons. | Cwt. | Qrs. | lbs. | Ft. | In. | Cwt. | Qrs. lbs. |
| | Brought forward ... | ..... | | | | | | ..... | | | | 45 | 16 | 2 | 16 |
| 1 Piece | Each consisting of 1 tender frame and tank, 2 tool boxes in front and 2 tool boxes at back, with brass name plate I. S. R. 2 buffer boxes, 1 water feed tank, 25 stanchion brackets on sides and back of tank, 6 horn stays, 2 foot-step stays, 12 spring shoes, 12 horn blocks cased with wood, 1 draw spring and pin, 2 brackets for brake shaft, 1 lamp carrier at back of tank, tank crated with wood ... | 16 | 4 | 7 | 0 | 5 | 8 | 11 | 3 | 1 | 13 | 11 | 13 | 1 | 0 |
| 3 Pieces | Each consisting of 1 pair tender wheels on axle, journals being cased with wood ... | 5 | 5 | 2 | 3 | 2 | 3 | 3 | 17 | 1 | 12 | 3 | 17 | 3 | 4 |
| 1 case | Each containing 1 brake pillar with 6 bolts, 6 brake hangers and blocks, 6 top pins and 12 collars, 1 brake screw and handle, 3 brake links and pins, 3 cross shafts with all collars and pins, (2 long brake links in engine case No. 9), 1 brake shaft, 2 buffers plungers and shoes, 2 safety links and 2 pins, 1 draw bar, 2 foot-steps and 8 bolts, and 2 stays and 4 bolts, 3 plates for draw box, and 16 bolts, 1 guide for draw bar and 2 bolts, 1 central buffer, 1 draw bar, pin, cotter and chain, 2 plates, 1 nut and 1 volute spring complete, 2 brass feed cocks, and 8 bolts, 2 brass elbows, 2 brass ball and socket pipes, 2 clips, chains and bolts, 6 tender springs, 12 steel spring shoes, 6 axle boxes, with brasses complete, 2 sliding covers for middle axle boxes, 2 handrail pillars, 2 brackets and 4 bolts, 2 spindles, 2 handles and 2 small guides for feed cocks, 1 strainer for tank and 1 lid, 6 carriers and tin bolts for tender platform, and 2 padlocks with different keys | 7 | 8 | 2 | 6 | 2 | 3 | 3 | 1 | 0 | 17 | 3 | 11 | 0 | 13 |
| | Total Gross weight of one E class Engine and Tender ... | ..... | | | | | | ..... | | | | 64 | 18 | 3 | 5 |

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## Appendix D.

*Copy of Packing Account, dated 25th June 1887, of the S. S.* "Amarapoora" *shewing measurement and weight of packages containing parts of O class Engines (Metre Gauge): Makers—Messrs. Neilson and Co., Glasgow.*

| Description and number of packages. | Description of Stores, showing Contents of Packages in detail. | Outside measurement of each package. | Net weight. | Gross weight. |
|---|---|---|---|---|
| | | Ft. In. Ft. In. Ft. In. | Tons. Cwt. Qrs. lbs. | Tons. Cwt. Qrs. lbs. |
| 5 Pieces | Each consisting of 1 Locomotive boiler and frame, boiler with tubes regulator pipe and valves, with short rod and pins, regulator long rod and carrier, internal steam pipe and clips, 2 internal steam pipes and couplings for injectors, 1 ditto for steam blower, dome and top with bolts and nuts, 2 clack box seatings, 10 studs and nuts, 1 mud collector cock seating, studs and nuts, 2 clothings studs in dome, 2 handrail pillar brackets, studs and nuts, 1 manhole cover, bolts and nuts, fire-box with vertical and horizontal stays and nuts, 1 safety valve seating, studs and nuts, 8 injector steam cock studs and nuts, 2 steam blower cock studs and nuts, 4 studs for injector, steam blower and whistle spindle guides, 12 studs and nuts for wash-out plug seats, 2 expansion brackets, 13 clothing studs, 4 clothing brackets with 8 studs and nuts, 4 mud plug seatings, 2 mud doors, 8 glass gauge cock studs and nuts, 1 glass gauge lampholder seat, studs and nuts, 4 blow off cock studs and nuts, 4 regulator stuffing box studs and nuts, 1 steam brake cock seating, studs and nuts, 1 fire door frame, 1 catch and 6 studs and nuts, 2 flame plate studs and pins, 2 scum cock studs and nuts, 2 centre fire bar carrier brackets, 4 studs and nuts, front and hind fire bar carrier studs, 2 fusible plugs, 6 studs for brick arch, 8 studs and 8 cotters for ashpan to bottom ring, smoke box with door, hinges and pin, and cross bar with carriers, 2 cylinder steam pipes, 1 steam T. pipe, bolts and nuts, exhaust steam pipe and top, studs and nuts, 1 steam blower pipe and 2 coupling nuts, 2 lubricator pipe covers, bolts and nuts, 1 stay for blast pipe, 5 mud plugs, 2 angle irons for smoke box bottom, 12 set screws.<br><br>Frame, with 2 cylinders front and hind covers, 2 steam chest covers, studs and nuts, 2 valve spindle pocket glands, bogie centre casting, bolts and nuts, and bogie centre pin with nut and washer, 1 front buffer beam, 1 buffer box and guide with volute spring and washers, bolts and nuts, 4 axle box guides and 4 clips with 8 studs and nuts, 2 compensating lever brackets, 12 bolts and nuts, 2 pins and washers, 4 spring link brackets, 2 expansion brackets and clips, bolts and nuts, 8 brackets and set screws for splashers, 2 footstep plates, 4 rocking shaft carriers, bolts and nuts, 2 reversing shaft carriers, bolts and nuts, 2 slide bar brackets 4 piston | | | |
| | Carried over ... | ..... | ..... | ..... |



## Appendix D.—*contd.*

| Description and number of packages. | Description of Stores, showing Contents of Packages in detail. | Outside measurement of each package. | Net weight. | Gross weight. |
|---|---|---|---|---|
| | | Ft. In. Ft. In. Ft. In. | Tons. Cwt. Qrs. lbs. | Tons. Cwt. Qrs. lbs. |
| | Brought over ... | ..... | ..... | ..... |
| | rod gland studs, 8 fall plate screws, 2 bushes and 4 bolts and nuts for cylinder water cock shaft, 1 motion lampholder, 4 brake block hanger bracket, 3 cross stretchers, 2 platform plates and cast iron foot plate | 22 5 7 7 8 9 | ..... | 11 2 0 0 |
| 5 Pieces | Each consisting of 1 pair of bogie wheels on axle complete ... | 3 10 2 7 2 7 | ..... | 0 10 0 0 |
| 5 „ | Each consisting of 1 pair of bogie wheels on axle complete ... | 3 10 2 7 2 7 | ..... | 0 10 0 0 |
| 5 „ | Each consisting of 1 bogie frame, with 8 axle box guides, 4 horn clips, 8 studs and nuts, 2 spring beams, 2 springs, 4 spring links and pins, 2 tierods, 1 bogie centre, 1 centre slide, 2 carriers and steel check springs ... ... ... | 5 11 2 11 1 10 | ..... | 0 17 2 0 |
| 5 „ | Each consisting of 1 pair driving wheels on axle, with 4 eccentric pulleys, 2 crank arms, 2 crank pins and nuts, and balance weight complete ... ... ... | 7 0 4 7 4 7 | ..... | 1 14 0 0 |
| 5 „ | Each consisting of 1 pair trailing wheels on axle, with 2 crank arms, 2 crank pins and nuts, and balance weights complete... ... | 7 0 4 7 4 7 | ..... | 1 11 1 0 |
| 5 „ | Each consisting of 1 cowcatcher ... | 7 0 2 6 2 6 | ..... | 0 2 2 0 |
| 5 „ | Each consisting of 1 ashpan ... | 5 0 2 9 1 11 | ..... | 0 3 1 0 |
| 5 Cases | Each containing 2 connecting rods with 4 pairs brasses, 2 large cotters, with split cotters, 4 oil cup covers, 4 sets screws, 2 check blocks, and 2 bolts and washers, 2 coupling rods with 4 brass bushes and 4 oil cup covers, 4 eccentric straps and 4 rods with pins complete, 1 reversing shaft with lifting link pin and washer, 2 slide valves, 2 valve spindles and buckles, 2 crossheads and 2 cotters, 2 valve spindle gland stuffing boxes and 4 studs, 2 valve connecting rods and 2 pins, 2 pistons and rods with packing rings, brass nuts and split cotters, 2 piston crossheads with 4 brass slide block liners, 12 bolts and 24 nuts, 2 oil cup covers, 4 studs and nuts, 2 piston crosshead pins with nuts and washers, 2 piston crosshead cotters with split cotters, 2 expansion links with 2 brackets, 2 lifting link studs and washers, 2 oil cups and 2 dies, 2 lifting links, 2 rocking shafts and 4 pins, 2 slide bars and 4 liners, 6 slide bar bolts and nuts, 1 regulator handle, 1 regulator handle socket with nut and washer, | | | |
| | Carried over ... | ..... | ..... | 16 10 2 0 |

## Appendix D.—*contd.*

| Description and number of packages. | Description of Stores, showing Contents of Packages in detail. | Outside measurement of each package. | | | Net weight. | | | | Gross weight. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. | In. | Ft. In. Ft. In. | Tons. | Cwt. | Qrs. | lbs. | Tons. | Cwt. | Qrs. | lbs. |
| | Brought forward ... | ..... | | | ... | | | | 16 | 10 | 2 | 0 |
| | 1 smoke box handrail and 2 studs with nuts and washers, 2 smoke box door handles and pin, 2 injector steam cock spindles, 2 handles, 2 guides, 1 whistle cock spindle, 1 handle and 1 guide, 1 blower cock spindle, 1 handle and 1 guide, 1 mud collector cock handle with guide, bolts and nuts, 2 injector feed cock spindles and handles, 2 injector overflow cock spindles and handles, 2 hand rail pillars with knobs and nuts for cab, 1 set of (16) piston and valve spindle gland nuts, 1 ashpan jet cock spindle and handle, 1 guide ... ... | 8 | 1 | 3 1 2 1 | ..... | | | | 1 | 6 | 1 | 0 |
| 5 Cases | Each containing 10 clothing plates for boiler and fire box, 1 fire box face plate and one piece wood lagging for ditto, 1 dome clothing cover and 1 piece wood lagging for dome, 1 set of (3) fire box beadings, 2 cylinder clothing plates, 1 set of (8) clothing straps, 1 set of (23) crinoline hoops and bands, 1 cab roof lamp cover, 1 parcel screws and pins for boiler and cylinder clothing, and 1 stud and pin for dome top ... ... ... | 4 | 3 | 4 3 5 2 | ..... | | | | 0 | 11 | 2 | 0 |
| 5 „ | Each containing 1 right hand cab side with tool box and lid, hasp and eye bolt, hinges, bolts, and nuts, 13 bolts and nuts to foot plate, 5 bolts and nuts to roof, 12 bolts and nuts to front, 1 left hand cab side, with 12 bolts and nuts to front, 13 bolts and nuts to foot plate, and 5 bolts and nuts to roof, 1 cab front, with two doors and hinges, 2 handles, 4 brass window frames, 6 bolts and nuts to footplate, 7 bolts and nuts to roof, 1 cab with 14 bolts and nuts for front to roof, 2 cab stays, bolts and nuts, 1 teak wood platform for engineman's footplate, 1 small box containing 4 spectacle glasses, 2 gauge glasses and washers, 1 pressure gauge and pipe, 1 hank of worsted and copper wire for syphons ... ... | 8 | 0 | 6 7 2 1 | ..... | | | | 0 | 17 | 0 | 0 |
| 5 „ | Each containing 1 chimney with bolts and nuts, 1 spark arrestor, 2 sand boxes with 2 lids, 2 chains, 2 valves, 2 bushes, 2 levers, 3 pins, 4 bolts and nuts, 1 head lamp carrier with 4 studs and 4 screws, 2 side lamp holders with 4 bolts and nuts, 1 central buffer with pin, nuts and washers, 1 draw hook, 1 draw pin, 2 safety pins, 1 draw bar, 1 reversing screw bracket with hand wheel and handles, 1 key, 1 screw, 1 die, 1 stud, 2 nuts, 1 index plate and 2 screws, 1 indicator, 1 mall-iron carrier for reversing screw bracket, with 8 bolts and nuts, 1 safety valve seat, with valves, lever, and spring complete, 1 fire door and chain, 1 fire door defector plate, 1 fire door frame-plate, 1 ashpan perforated door, 1 ashpan damper door, with lever and carriers, 2 ash dropper doors, with | | | | | | | | | | | |
| | Carried over ... | ..... | | | ..... | | | | 19 | 5 | 1 | 0 |



## Appendix D.—*contd.*

| Description and number of packages. | Description of Stores, showing Contents of packages in detail. | Outside measurement of each package. | | | Net weight. | | | | Gross weight. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. | In. | Ft. In. Ft. In. | Tons. | Cwt. | Qrs. | lbs. | Tons. | Cwt. | Qrs. | lbs. |
| | Brought forward ... | ..... | | | ..... | | | | 19 | 5 | 1 | 0 |
| | gearing complete, 1 sector and stud, with 2 washers and 3 bolts and nuts for cylinder, sand and damper rod handles, 1 cylinder water cock handle, 1 sand rod handle, 1 ashpan rod and handle with pins, 2 cowcatcher stays with 8 bolts and nuts, 13 bolts and nuts for cowcatcher to buffer beam, 1 10-ton traversing screw jack with ratchet and lever, 1 set of (16 sizes) screw keys, 1 large and 1 small monkey wrench (7 in. and 14 in.), 1 copper, 1 lead, 1 quarter and 1 hand hammer, 2 flat, 2 round, and 2 cross-cut chisels, 2 pin punches ($\frac{1}{8}$ in. and $\frac{1}{4}$ in.), 1 cotter punch, 1 hand brush, 6 files and 3 handles, 1 tube scraper, 1 tube brush, 1 crowbar, 1 pricker, 1 dart, 1 rake, 1 tube brush rod, 1 tube plug holder, 1 long shovel, 1 short, shovel, 5 padlocks and keys, 1 slice, 2 foot-steps, bolts and nuts ... | 7 | 1 | 3 5 2 5 | ..... | | | | 1 | 1 | 0 | 0 |
| 5 Cases | Each containing 1 steam brake cylinder, with piston and brass packing, 1 rod, 1 crosshead and pin, 1 relief valve, 1 gland, 2 studs and 4 nuts, 4 brake blocks with hangers, 4 springs, 4 pins, and 8 set screws, 4 pins, and ferrules, 2 brake tie rods, 1 shackle and 2 pins, 2 brake coupling rods, 1 shackle, 3 pins, 2 eye bolts and 2 springs, 4 engine bearing springs and 8 pins, 8 spring links and 8 pins, 2 compensating beams, 1 set of (22) single fire bars, 4 side fire bars, 1 centre fire bar carrier, 1 front and 1 hind carrier, 2 reversing shaft balance weights with 2 bolts and nuts ... | 6 | 5 | 2 5 2 1 | ..... | | | | 1 | 3 | 1 | 0 |
| 5 „ | Each containing 2 bogie, 2 driving, and 2 trailing wheel splashers, with bolts and nuts, 2 driving crank splashers, 2 steam chest cover caseings, 2 injectors, with feed and overflowcocks and ashpan jet cock, 8 bolts for delivery pipes, 8 studs for injector steam pipes, and 4 bolts for suction pipes, 2 injector feed cock hangers and two stays, 8 bolts and nuts, 2 ball and socket pipes, with hangers for engine, 2 clack boxes, with 8 bolts and nuts, 2 blow-off cocks, 1 mud collector cock, 1 steam blower cock, 2 injector steam cocks, 1 scum cock and handle, 1 steam brake cock with handle, sector and elbow bracket, 4 glass gauge cocks and seatings, 1 whistle with cock and seating, 2 piston glands and 2 bushes in 4 pieces, 2 valve spindle glands and 2 bushes, 1 union for outside blower pipe, 14 mud plugs, 6 wash-out plugs and nuts, 2 Roscoe's lubricators for steam pipes, 2 Furness' lubricators for cylinders, 1 regulator stuffing box and gland with studs and nuts, 6 cylinder water cocks with levers and pins, 2 piston rod oil cups, 2 | | | | | | | | | | | |
| | Carried over ... | ..... | | | ..... | | | | 21 | 9 | 2 | 0 |

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## Appendix D.—*contd.*

| Description and number of packages. | Description of Stores, showing Contents of packages in detail. | Outside measurement of each package. | | | Net weight. | | | Gross weight. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. In. | Ft. In. | Ft. In. | Tons. | Cwt. | Qrs. lbs. | Tons. | Cwt. | Qrs. | lbs. |
| | Brought forward ... | ..... | | | ... | | | 21 | 9 | 2 | 0 |
| | valve spindle oil cups, 2 bogie centre oil cups, 1 pressure gauge cock, 1 glass gauge lampholder, 1 blast pipe top (spare), 1 blower pipe guide, 2 injector feed and over-flow spindle guides, bolts and nuts, 1 cylinder water cock rod guide, bolts and nuts, 2 mud discharge pipe guides | 6 8 | 2 7 | 1 5 | ... | ... | ... ... | 0 | 11 | 0 | 0 |
| 5 Cases | Each containing 1 set of wood lagging for boiler, fire box and cylinders 2 injector delivery pipes in 6 pieces, 2 coupling nuts and 8 bolts and nuts, 2 injector steam pipes in 6 pieces and 6 coupling nuts, 2 injector suction pipes, 1 outside blower pipe and 2 coupling nuts, 2 steam brake pipes and 2 coupling nuts, 1 brake exhaust pipe and elbow, 1 scum pipe, 1 mud discharge pipe and coupling nut, 2 glass gauge drip pipes, 2 sand pipes and 4 guides, 4 cylinder lubricator pipes, couplings and nuts, 2 steam chest condensed water pipes, couplings and nuts, 1 ashpan jet pipe in 4 pieces, with couplings and nuts, 1 reversing rod with pin and washer, 2 sand box rods, 2 boiler handrails with 4 studs and 2 nuts for smoke box, 4 tender handrail with eight studs and nuts, 1 cylinder water cock shaft with 3 levers and three pins, 5 cylinder water cock rods, 1 lever and 2 pins, 1 face plate with hinges ... | 14 10 | 2 1 | 2 0 | ... | ... | ... ... | 0 | 12 | 0 | 0 |
| 5 „ | Each containing 4 engine axle boxes with brass bushes, 4 spring hanger pins, 8 pins for keeps and 4 covers, 6 tender axle boxes with brasses and iron liners, lids and guard plates, brass plugs and oilhole covers, 6 leather washers, 2 sliding tops for centre axle boxes, 4 bogie axle boxes with covers complete, 2 ashpan damper air doors with two lids, 6 screws, 6 bolts and nuts and 2 hooks ... | 4 2 | 2 8 | 2 5 | ... | ... | ... ... | 0 | 14 | 1 | 0 |
| 5 „ | Each containing 1 head lamp, 2 side lamps, 2 gauge lamps, 1 motion lamp, 2 handlamps, 1 cab roof lamp, 1 oil bottle, 1 oil can, 1 oil feeder ... | 4 3 | 2 5 | 2 0 | ... | ... | ... ... | 0 | 3 | 2 | 0 |
| 5 „ | Each containing 1 tender cab roof complete, 2 side railings with pillars and coping for tank, 1 hind railing with pillars and coping for tank, 2 cab handrail pillars, 2 brackets and 4 bolts and nuts for tank ... | 10 6 | 5 10 | 2 0 | ... | ... | ... ... | 0 | 16 | 1 | 0 |
| 5 „ | Each containing 6 tender bearing springs, 2 spring pillars, 4 spring links, 8 nuts and 4 washers for centre bearing springs, 6 brake blocks and hangers and 6 pins, 6 hanger pins and ferrules, 1 brake screw and handle, 1 brake screw rod and nut with pin, 1 brake screw pillar with cap and bolts and nuts | | | | | | | | | | |
| | Carried over ... | ..... | | | ... | | | 24 | 6 | 2 | 0 |



## Appendix D.—*concld.*

| Description and number of packages. | Description of Stores, showing Contents of packages in detail. | Outside measurement of each package. | | | Net weight. | | | Gross weight. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. In. | Ft. In. | Ft. In. | Tons. | Cwt. | Qrs. lbs. | Tons. | Cwt. | Qrs. | lbs. |
| | Brought forward ... | ..... | | | ... | | | 24 | 6 | 2 | 0 |
| | to footplate, 4 brake rods and 2 pins, 3 brake tie rods and washers, 1 central buffer with pin, nuts and washers, 1 draw hook, 2 safety pins, 2 safety links, 1 buffer guide, bolts and nuts, 2 life guards, bolts and nuts, 2 foot steps and 16 bolts and nuts, 9 foot board hangers and 38 bolts and nuts, 2 corner binding plates for footboards, 2 feed valve spindles and handles, 2 copper feed pipes, 2 ball and socket feed pipes, and cocks with carrier, bolts and nuts, 1 class O plate, 2 tool box lids with hinges and hasps, 1 gong with wood seat and 3 bolts and nuts to tank, 1 gong cord guide ... | 7 9 | 2 3 | 2 1 | ... | ... | ... ... | 0 | 19 | 2 | 0 |
| 5 Pieces | Each consisting of 1 tender tank and frame, tank with front and hind tool boxes, lid hasp, eye bolt, and hinges, 14 pillar brackets and 28 bolts and nuts, 10 sockets for railings on tank, 2 shields for water valve spindles, 1 sieve and filling door, 1 bunker door and catch, 2 head lamp platforms, 2 side lamp holders, and 4 lifting plates. | | | | | | | | | | |
| | Frame with axle box guides and clips, studs and nuts, 12 spring link brackets, 8 spring links and pins (front and hind), 4 tank supports, and 8 bolts and nuts, 1 brake shaft and 2 carriers with bolts and nuts, 1 intermediate buffing spring with draw pin, 2 intermediate buffers with shoes and guides, 2 cisterns with bolts and nuts, 1 water gauge pipe and top, 1 hind buffer plate with buffer box, volute spring and washers ... | 13 8 | 7 5 | 6 4 | ... | ... | ... ... | 4 | 4 | 0 | 0 |
| 5 „ | Each consisting of 1 pair of leading tender wheels on axle complete ... | 5 3 | 2 7 | 2 7 | ... | ... | ... ... | 0 | 10 | 1 | 0 |
| 5 „ | Each consisting of 1 pair of centre tender wheels on axle complete ... | 5 3 | 2 7 | 2 7 | ... | ... | ... ... | 0 | 10 | 1 | 0 |
| 5 „ | Each consisting of 1 pair of trailing tender wheels on axle complete ... | 5 3 | 2 7 | 2 7 | ... | ... | ... ... | 0 | 10 | 1 | 0 |
| | Total gross weight of 10 class engine and tender complete ... | ..... | | | ... | | | 31 | 0 | 3 | 0 |

# Appendix E.

*Copy of Packing Account, dated 6th August 1888 of the S. S. "* **Amarapoora** *" showing measurement and weight of packages containing parts of P Class Engine (Metre Gauge) : Makers—Messrs. Neilson & Co., Glasgow.*

| Description and number of packages. | Description of Stores, showing Contents of packages in detail. | Outside measurement of each package. | | | Net weight. | Gross weight. |
|---|---|---|---|---|---|---|
| | | Ft. In. | Ft. In. | Ft. In. | Tons. Cwt. Qrs. lbs. | Tons. Cwt. Qrs. lbs. |
| 5 Pieces | Each consisting of 1 locomotive boiler and frame, boiler with tubes complete, internal steam pipe and bottom part of regulator pipe, regulator long rod, dome seating with bolts and nuts, mud collector seat and cover, studs and nuts, 2 clack box seats, studs and nuts, 4 studs and nuts for boiler handrail pillar seats, fire-box with ashpan attached, 6 studs, and nuts for steam brake valve seat, fire door frame, safety valve seat, studs and nuts, 2 studs and nuts for glass gauge lamp-holder seat, 4 clothing brackets, 12 clothing studs, 2 studs and pins for flame plate, 2 fusible plugs, 2 mud doors, 12 studs and nuts for wash-out plug seats, 6 fire bar carrier brackets, 2 back damper doors for ashpan, 4 studs and nuts for blow-off cocks, smoke box with door and crossbar, 4 mud plugs, 1 steam T pipe, 2 cylinder steam pipes, 2 exhaust steam pipes and top, 2 lubricator pipe covers, and bottom covering plate.<br><br>Frame with hornblocks and clips, 2 cylinders with front and hind covers, 2 steam chest covers, 2 valve spindle stuffing boxes with collar bushes, 2 slide bar brackets, 12 spring hanger brackets, 6 spring pillar guides, 2 reversing shaft carriers, 4 brake block hanger carriers, 3 cross stretchers, 1 front buffer beam, 1 "Timmis" spring and steel case, foot plate with drawbox and two buffing plates, 8 fall plate screws, 2 expansion clips with bolts and nuts, 1 back covering plate for fire box with screws, 1 reversing handle bracket 2 platforms with 4 carriers and 2 foot-step plates, 2 doors with handles for cylinder steam chests, and 2 steam chest pipe clips ... | 22 3 | 7 3 | 7 2 | ... | 11 0 0 0 |
| 5 Pieces. | Each consisting of 1 pair of leading wheels on axle, with outside driving cranks complete ... ... | 7 0 | 3 9 | 3 9 | ... | 1 2 1 0 |
| 5 „ | Each consisting 1 pair of driving wheels on axle, with outside cranks and eccentric pulleys complete ... ... ... | 7 0 | 3 9 | 3 9 | ... | 1 6 0 0 |
| 5 „ | Each consisting of 1 pair of trailing wheels on axle, with outside driving cranks complete ... ... | 6 6 | 3 9 | 3 9 | ... | 1 2 0 0 |
| 5 „ | Each consisting of one cowcatcher ... | 7 0 | 2 3 | 2 3 | ... | 0 2 0 0 |
| | Carried over ... | ... | ... | ... | ... | 14 12 1 0 |



# Appendix E.—*contd.*

| Description and number of packages. | Description of Stores showing Contents of packages in detail. | Outside measurement of each package. | | | Net weight. | Gross weight. |
|---|---|---|---|---|---|---|
| | | Ft. In. | Ft. In. | Ft. In. | Tons. Cwt. Qrs. lbs | Tons. Cwt. Qrs. lbs. |
| | Brought forward ... | ... | ... | ... | ... ... ... ... | 14 12 1 0 |
| 5 Cases | Each containing 1 reversing shaft and 3 pins, 2 connecting rods complete, 4 coupling rods complete, 4 eccentric straps and rods and 2 pins, 2 valve connecting rods and 4 pins, 2 slide valves, 2 valve spindles and buckles with crossheads and cotters, 2 pistons and rods with rings and nuts complete, 2 piston cross heads with brass liners, pins and cotters, 4 swing links with brass bushes, 4 lifting links, 2 reversing links and 2 dies, 1 reversing handle with pin, 1 regulator handle, 1 regulator rod end with nut and washer, 4 motion pins, 2 smoke box door handles and pin, 2 slide bars with 4 bolts and nuts, 2 handrail pillars with tops and nuts, 2 injector feed cock spindles and handles, 2 injector overflow cock spindles and handles, 2 injector steam cock spindles and handles with guides, 1 steam blower cock spindle and handle with guide, 1 steam whistle cock spindle and handle with guide, 1 steam blower pipe guide, 1 glass gauge lampholder with seat, 4 boiler handrail pillars, 2 with seats and 2 with nuts, 1 smoke box door handrail with 2 studs and nuts, 16 gland nuts ... ... | 6 9 | 2 10 | 2 5 | ... | 1 4 2 0 |
| 5 „ | Each containing 1 cab roof for engine complete, 1 set of (40 pieces) teak wood lagging for boiler, 1 set of (16 pieces) teak wood lagging for cylinders, 1 wood seat for gong, 3 teak wood tool box lids ... | 8 0 | 6 3 | 2 0 | ... | 0 11 1 0 |
| 5 „ | Each containing 1 right hand cab side with tool box and name plate, 1 left hand cab side with name plate, 2 cab roof gusset stays, 1 complete set of bolts and nuts for cab, 1 small box containing 4 cab front window glasses, 1 pressure gauge with cock and pipe, 2 gauge glasses with india rubber washers, 1 hank of worsted, 1 hank of copper wire, 1 parcel split and taper pins ... | 8 2 | 6 1 | 1 10 | ... | 0 12 0 0 |
| 5 „ | Each containing 9 boiler and fire box clothing sheets, 6 clothing straps, bolts and nuts, 1 set of (18 pieces) boiler crinoline hoops, 1 dome, 1 dome clothing cover, 2 cylinder clothing sheets, 3 pieces fire box beading, 1 parcel clothing screws, 1 regulator baffle plate ... ... | 4 8 | 4 8 | 5 7 | ... | 0 14 0 0 |
| 5 „ | Each containing 1 chimney with bolts complete, 1 spark arrestor, 2 sand boxes with valves, levers and number plates (N and C.), 1 duplex safety valve complete, 1 reversing sector and plate, bolts and nuts, 1 regulator pipe and valve with short rod and 2 pins, 1 cylinder water cock and sand box sector and pin, bolts and nuts, 1 cylinder water cock handle, 1 sand box handle, 1 ashpan handle, 1 mud collector cock handle, 1 spindle and carrier, 2 blow-off cock spindles and handles, 1 mud collector handle guide, 1 head lamp platform with 4 studs and | | | | | |
| | Carried over ... | ... | ... | ... | ... ... ... ... | 17 14 0 0 |

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## Appendix E.—*contd.*

| Description and number of packages. | Description of Stores showing Contents of packages in detail. | Outside measurement of each package. | | | Net weight. | | | | Gross weight. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. | In. | Ft. In. | Tons. | Cwt. | Qrs. | lbs. | Tons. | Cwt. | Qrs. | lbs. |
| | Brought forward ... | ... | ... | ... | ... | ... | ... | ... | 17 | 14 | 0 | 0 |
| | nuts, 2 side lampholders with bolts and nuts, 1 motion lampholder and bracket, bolts and nuts, 1 cylinder water cock rod gude, 1 ashpan door with lever and 2 carriers, 1 ashpan perforated door, 1 fire door and chain, 1 central buffer with pin and nut, 1 draw hook, 1 draw pin, 2 safety pins, 1 flame plate, 1 defector plate, 2 foot steps with bolts and nuts, 2 cowcatcher stays with bolts and nuts, 4 bolts and nuts for cowcatcher to buffer beam, 2 injector spindle brackets, 2 injector brackets and 2 stays with bolts and nuts, 2 ball and socket union pipe carriers with bolts and nuts, 1 mud collector pipe clip and 2 wood screws, 4 delivery pipe clips, bolts and nuts, 1 sand box bracket, bolts and nuts, 1 intermediate shaft for cylinder water cock rods with carriers, 2 injectors with feed and overflow cocks, 2 clack boxes, 2 ball and socket union pipes, 2 piston glands and 2 bushes, 4 valve spindle glands, 1 steam blower and whistle cock, 1 steam brake valve and bracket with handle, 2 injector steam cocks, 1 scum cock and handle, 4 glass gauge cocks, 4 cylinder water cocks and levers, 2 steam chest cocks and pipes, 4 cylinder lubricators and 2 pipes, 1 steam blower pipe union and nut, 13 mud plugs, 6 washout plugs and caps, 1 regulator stuffing box and gland with studs and nuts, 1 whistle, 4 slide bar liners, 2 blow-off cocks, 1 mud discharge cock, 1 exhaust steam pipe top (extra), 4 sand pipe guides ... ... ... | 8 | 5 | 2 7 | 2 | 4 | ..... | | 1 | 1 | 2 | 0 |
| 5 Cases | Each containing 4 brake blocks and hangers, 2 brake tie rods and washers, 2 brake coupling rods with pins and nuts, 2 brake releasing springs with eye bolts and nuts, 1 brake cylinder with piston and gland, bolts and nuts, 6 bearing springs, 12 spring hangers and screws, 12 spring pins, 6 spring pillars, 1 back balance weight with bolts and nuts, 1 set of (34) fire bars, 3 fire bar carriers ... ... | 7 | 1 | 2 7 | 2 | 1 | ..... | | 1 | 3 | 0 | 0 |
| 5 „ | Each containing 6 injector-steam, 6 delivery and 2 feed pipes, 2 steam blower pipes, 2 steam brake pipes, 2 sand pipes, 1 scum pipe, 1 whistle pipe, 1 mud discharge pipe, 2 glass gauge drip pipes, 1 reversing rod and pin, 2 sand box rods, 6 cylinder water cock rods, 1 cylinder water cock shaft with 5 cranks and 2 carriers, 1 ashpan rod, 2 boiler handrails, 1 face plate, 2 brake rods for tender, 4 tank handrails with 8 studs and nuts for tender, 1 rake, 1 pricker, 1 dart, 1 clinker shovel, 1 long shovel, 1 short shovel, 1 crowbar, 1 tube plug rod, 1 tube brush rod, 1 galvanised water bucket. | 15 | 9 | 1 11 | 1 | 11 | ..... | | 0 | 8 | 3 | 0 |
| 5 „ | Each containing 1 head lamp, 2 side lamps, 2 gauge lamps, 2 hand lamps, 1 motion lamp, 1 oil bottle, 1 oil can, 1 oil feeder ... ... | | | | | | | | | | | |
| | Carried over ... | 4 | 3 | 2 5 | 2 | 5 | ..... | | 0 | 2 | 2 | 0 |
| | | ..... | | | ..... | | | | 20 | 9 | 3 | 0 |



## Appendix E.—*concld.*

| Description and number of packages. | Description of Stores showing Contents of packages in detail. | Outside measurement of each package. | | | | | | Net weight. | | | | Gross weight. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ft. | In. | Ft. | In. | Ft. | In. | Tons. | Cwt. | Qrs. | lbs. | Tons. | Cwt. | Qrs. | lbs. |
| | Brought forward ... | ..... | | | | | | ..... | | | | 20 | 9 | 3 | 0 |
| 5 Cases | Each containing 6 axle boxes with covers complete for engine, 6 axle boxes with covers complete for tender, 1 set of (12) screw keys, 1 large and 1 small shifting key, 1 heavy, 1 hand, 1 lead, and 1 copper hammer, 6 files and 3 handles (assorted), 6 chisels (assorted), 1 large and 1 small pin punch, 1 cotter punch, 1 foot plate brush, 1 wire tube brush, 1 tube scraper, 1 tallow kettle, 5 pad locks and key.. | 4 | 5 | 2 | 5 | 1 | 9 | ..... | | | | 0 | 14 | 0 | 0 |
| 5 Pieces | Each consisting of 1 tender tank and frame, tank with sieve and lid, 2 hind lamp platforms, 2 front and 2 hind tool boxes, bunker door, 28 wood rail pillar brackets, 1 water gauge pipe and top, 4 lifting plates. Frame with horn blocks and clips, 12 spring hanger carriers, 1 front draw spring and pin, 2 intermediate buffers with shoes and guides and hind buffer plate ... ... | 15 | 6 | 6 | 11 | 6 | 1 | ..... | | | | 4 | 2 | 0 | 0 |
| 5 „ | Each consisting of 1 pair of leading tender wheels on axle complete ... | 5 | 4 | 2 | 4 | 2 | 4 | ..... | | | | 0 | 9 | 1 | 14 |
| 5 „ | Each consisting of 1 pair of centre tender wheels on axle complete ... | 5 | 4 | 2 | 4 | 2 | 4 | ..... | | | | 0 | 9 | 1 | 14 |
| 5 „ | Each consisting of 1 pair of trailing tender wheels on axles complete ... | 5 | 4 | 2 | 4 | 2 | 4 | ..... | | | | 0 | 9 | 1 | 14 |
| 5 Cases | Each containing 1 cab roof for tender, 1 hind and 2 side rails with 14 pillars, 2 handrail pillars with tops and nuts, 2 hand rail pillar brackets with bolts and nuts ... ... | 11 | 10 | 5 | 7 | 1 | 11 | ..... | | | | 0 | 15 | 1 | 0 |
| 5 „ | Each containing (tender details) 6 bearing springs and 2 tops for centre buckles, 12 bearing spring links and screws, 1 brake shaft with lever and pin, 2 brake shaft carriers, bolts and nuts, 6 brake blocks and hangers, 6 brake hanger pins and ferrules, 3 brake tie rods and washers, 2 brake coupling rods and 2 pins, 1 brake screw with handle and nut, 1 brake screw pillar, 1 draw buffer with draw hoop and screw coupling combined, 1 draw buffer guide with india-rubber washers, bolts and nuts, 2 draw buffer volute springs, 2 safety links, 1 draw bar, 2 safety pins, 2 copper feed pipes, 2 ball and socket feed cocks and pipes with india rubber washers, 2 carriers for feed cocks with bolts and nuts, 2 feed cocks spindles and handles with guides, 2 life guards, bolts and nuts, 2 foot steps, bolts and nuts, 8 foot board carriers, bolts and nuts, 4 jointing plates for foot boards with bolts and nuts, 1 name plate with bolts and nuts, 1 gong cord guide, 1 gong with bolts and nuts, 2 screw jacks with ratchets and levers ... ... | 7 | 10 | 3 | 0 | 2 | 5 | ..... | | | | 1 | 5 | 1 | 0 |
| | Total gross weight of one Class F engine and tender complete ... | ..... | | | | | | ..... | | | | 28 | 14 | 1 | 14 |

17 27/33

# Appendix F.

*Copy of Packing Account of the S. S. "Counsellor" showing measurements and weight of packages containing parts of A. Class or Locomotive Tank Engine (Metre Gauge) : Makers—Messrs. B. and W. Hawthorn of Newcastle-on-Tyne.*

| Description and number of packages. | Description of Stores showing Contents of packages in detail. | Outside measurement of each package. | | | Net weight. | Gross weight. |
|---|---|---|---|---|---|---|
| | | F. in. | Ft. in. | Ft. in. | Tons. Cwt. Qrs. lbs. | Tons. Cwt. Qrs. lbs. |
| 1 Piece | Consisting of boiler with tubes, stays, copper fire box, brass fusible plug, 5 washout plugs, 1 iron mud-hole cover, 1 cast iron mud-hole cover, fire bar bearer, dome with steam regulator and rod, inside injector steam pipe, smoke box with door, blast pipe, 2 cylinder steam pipes, steam pipe branch and all bolts and nuts, all nuts on studs for boiler mountings, frame with axle box guides and keeps with bolts and nuts, foot-plates, front buffer cast iron casting with 4 bolts and nuts, 2 iron washer plates and 2 india rubber washers, bolts and nuts for blind casing, 2 carriages for rocking shafts with bolts and nuts, 2 brackets with washers and pins for brake gear, 12 spring link brackets rivetted to frame, cylinders with steam chest covers, all nuts on studs for covers, 8 nuts on studs for valve spindle glands and close end caps, 4 bolts and nuts for fixing front buffer guide, supports for slide bars, stays, &c. ... | 19 6 | 7 0 | 7 6 | ..... | 6 1 1 14 |
| 1 Crate | Containing 1 right hand tank with 1 copper strainer ... ... | 13 10 | 2 10 | 4 2 | ..... | 0 17 1 25 |
| 1 „ | Containing 1 left hand tank with 1 copper strainer ... ... | 13 10 | 2 10 | 4 2 | ..... | 0 17 0 25 |
| 1 Piece | Consisting of 1 pair leading wheels on axle ... ... ... | 5 1 | 2 5½ | 2 5½ | ..... | 0 10 0 10 |
| 1 „ | Consisting of 1 pair driving wheels on axle with outside cranks ... | 6 0½ | 3 8¼ | 3 8¼ | ..... | 1 1 1 14 |
| 1 Case | Consisting of 1 pair trailing wheels on axle with outside cranks ... | 5 7 | 3 8¼ | 3 8¼ | ..... | 0 19 3 14 |
| | Lined with tin, containing 2 connecting rods with 2 bolts for 1 cross-head, 2 coupling rods complete, 4 eccentric rods and straps complete with four bolts, washers, and steel pins, 1 eccentric rod and strap for pump, 1 reversing weigh bar with 2 bolts, washers, and steel pins, 2 reversing links complete, 2 lifting links, 2 valve connecting rods with 2 bolts, washers, and steel pins, 2 slide valves, 2 valve bridles with 2 distance pieces, 2 valve spindles with 4 brass nuts, 4 slide bars with brackets, bolts, &c., at ends, 4 slide blocks, 2 pistons with rods, packing rings, and crossheads complete, 2 rocking shafts with arms and 4 reversing link sliders complete, 2 pins for sliders with cotters complete, 1 reversing handle with sector and bracket complete, 1 regulator handle, 2 handrails for tank, 4 nuts and washers, 2 handrails for front of boiler, 2 handrail studs with 2 nuts and washers for ditto, 1 flame plate, 2 stands for slide valve lubricators with 4 bolts and nuts, 1 injector rod with handle, bracket, 2 bolts and nuts, sand box gear, 4 rods, 4 levers with 3 washers, bolts, and split pins, 1 gauge for setting slides, 4 crank collars and pins, 2 front cylinder covers, 2 back cylinder covers, studs, | | | | | |
| | Carried over ... | | | | ..... | 10 7 1 18 |



# Appendix F.—*contd.*

| Description and number of packages. | Description of Stores showing Contents of packages in detail. | Outside measurement of each package. | | | Net weight. | Gross weight. |
|---|---|---|---|---|---|---|
| | | Ft. in. | Ft. in. | Ft. in. | Tons. cwt. qrs. lbs. | Tons. cwt. qrs. lbs. |
| | Brought forward ... | ..... | | | ..... | 10 7 1 18 |
| | and nuts complete, 4 brass liners for slide bars, 2 smoke box handles and fastener, 2 valve spindle glands, 2 valve spindle bushes, 2 valve spindle close end caps, 1 pump with ram cock, lever for cock, &c., complete, 4 bolts and nuts for fixing ditto, pump feed cock gear, 2 pillars with 2 nuts, 2 levers and 1 short rod, 3 levers on bolt, 1 lever for cylinder cock gear, 1 lever for feed cock, and 1 lever for pet cock, 3 handles, and 1 sector in 3 parts, 1 for cylinder cock gear, 1 for feed cock gear, and 1 for pet cock, 5 short rods for cylinder cock gear, 3 short rods for ashpan damper, 1 short rod for pet cock gear, 2 short rods for feed cock gear ... ... | 6 8½ | 2 11½ | 2 5½ | ..... | 1 2 1 3 |
| 1 Case | Lined with tin, containing 5 eccentric sheaves, 2 handrail pillars, with nuts and toprail with plate, bolts, and nuts for engineman's platform, 1 gauge lampholder, 1 safety valve complete, 1 injector hanger with 5 bolts and nuts, 1 injector with return clack and cock, bolts, nuts, &c., 2 clack boxes complete, 2 number plates with 4 bolts and nuts, 2 name-plates with 4 screws, 1 blow-off or mud cock, 1 pressure guage cock with stand and union pipe, 4 cylinder cocks with levers and pins, 2 water glass gauge cocks and flanges, 2 ordinary gauge cocks and flanges, 1 regulator stuffing box with box spindle, gland with 2 studs and nuts and nut and washer for spindle end, 4 steam chest cocks, 1 blower cock and handle, 1 injector steam valve with handle, 1 whistle with stand and 2⅜ inch bolts and nuts, Roscoe's lubricators, 2 Furness lubricators, 2 washout doors with clips, 6 washout plugs, 1 cap with cock for tank pipe, 2 blast pipe tops, 2 tank plugs, 2 syphons for valve spindles, 2 syphons for slide bars, 2 piston rod bushes (in 4 halves), 1 whistle pipe with 2 couplings, 1 jet cock pipe, 1 water guage pipe, 1 guage cock drain cup and pipe, 2 lubricator pipes with 2 elbows and 4 couplings, 1 pressure gauge, 4 gauge glasses with 8 india rubber rings, 2 tank strainers for manhole, 1 tin oil can, 1 tin oil feeder (long spout), 1 tin oil bottle (½ gallon), 1 wire tube brush, 1 foot-plate brush, 1 large hammer, 1 chipping hammer, 1 lead hammer, 1 copper hammer, 1 12-inch and 1 14-inch bastard file, 1 12-inch round file, 1 14-inch half round file, 1 large monkey wrench, 1 8-inch clyburn spanner, 1 complete set of screw keys, 2 padlocks and keys for tool boxes, 2 pin punches, 1 packing drawer, 1 cotter drift, 1 injector key, 4 check nuts for valve spindle glands, 2 flat chisels, 1 cross cut chisel ... ... ... | 4 11½ | 2 2½ | 1 11 | ..... | 0 9 0 3 |
| | Carried over ... | ..... | | | ..... | 11 18 2 24 |

13 24 / 40

## Appendix F.—*contd.*

| Description and number of packages. | Description of Stores showing Contents of packages in detail. | Outside measurement of each package. | | | Net weight. | Gross weight. |
|---|---|---|---|---|---|---|
| | Brought forward ... | Ft. In. ..... | Ft. In. ..... | Ft. In. ..... | Tons. cwt. qrs. lbs. ..... | Tons. cwt. qrs. lbs. 11 18 2 24 |
| 1 Case | Containing 6 springs with harness complete, 6 axle-boxes complete, 6 axle-box covers, 1 centre buffer for front end with coupling chain complete, 1 centre buffer for back end front end, 1 centre buffer guide for back end with 4¼ inch top bolts, ashpan gear, 2 handles with bolt, washer, and 3 split pins, 1 sector for ditto, 1 fire door complete, 2 brick arch brackets, 1 10-ton traversing screw jack with lever and ratchet, 1 ash door, 2 side lampholders with 4 bolts and nuts, 1 front lamp holder with 2 bolts and nuts, 4 safe guards with 10 bolts and nuts, 1 crow bar, 1 rake, 1 pricker, 1 plug rod, 1 dart, 1 tube scraper, 1 coal shovel, 1 long shovel ... | | | | | |
| 1 „ | Containing boiler wood clothing, 1 reversing rod with 2 bolts, washers and split pins, 3 tank levelli g pipes with 4 bolts and nuts and8 collar studs and nuts, 1 brake shaft with two bolts and split pins, 1 brake shaft lever with key and tapered pin, 2 brake shaft carriages with 4 bolts and nuts, 1 brake screw with nut, 2 washers and pins, 1 brake hand wheel, 1 brake screw bracket with bolts, 8 brake rods, 4 brake hangers with wood blocks, 12 coach screws, 2 long bolts with 4 metal washers and split pins at top, 4 collar bolts at bottom with 4 iron washers, 4 metal washers and 8 split pins, 4⅜ inch studs with nuts and split pins at bottom for cross-bars, 2 brake crossbars, 1 long rod for cylinder cock gear, 1 long rod for pet cock gear, 1 long rod for feed cock gear, 2 reversing weigh-bar balance weights with 2 bolts and nuts, 2 reversing weighbar carriages with 10 bolts and nuts and 4 split pins, 1 tank crossstay with 4 bolts and nuts and two tapered pins for handrail, 1 shaft for cylinder cock gear with 3 levers, 2 metal carriages and 4 bolts and nuts, 1 blow-off or mud cock pipe with coupling, 1 injector steam pipe (top) with coupling, 1 injector steam pipe (bottom) with coupling, 1 injector delivery pipe (front) with coupling and 4 bolts and nuts, 1 injector delivery pipe (back) with coupling, 1 injector suction pipe, pump delivery pipe with pet cock lever and split pin, 8 bolts and nuts and coupling for pet cock pipe, 1 pump suction pipe with 8 bolts and nuts, 1 blower pipe (front) with 1 coupling, 1 blower pipe (back) with 1 coupling, and joint nut, 1 blower pipe (inside of smoke box) with 2 couplings and elbows, 2 sand box pipes in 4 parts with 4 bolts and nuts, 1 blower pipe hanger with 2 brass screws, 2inject or delivery, pipe hangers with 4 bolts and nuts, 1 injector steam pipe hanger with two bolts and nuts, 1 tank pipe hanger with 2 tap bolts and 2 sand pipe hangers with 4 bolts and nuts, 1 blow-off pipe hanger with 4 bolts and nuts, 1 long rod for tube brush ... | 5 8½ | 2 11½ | 2 5½ | ..... | 1 1 0 8 |
| | Carried over ... | 9 11½ ..... | 2 11½ | 2 2½ | ..... ..... | 0 16 1 17 13 16 0 16 |



## Appendix F.—*concld.*

| Description and number of packages. | Description of Stores showing Contents of packages in detail. | Outside measurement of each package. | | | Net weight. | Gross weight. |
|---|---|---|---|---|---|---|
| | Brought forward ... | Ft. In. ..... | Ft. In. ..... | Ft. In. ..... | Tons. cwt. qrs. lbs. ..... | Tons. cwt. qrs. lbs. 13 16 0 16 |
| 1 Case | Containing 8 boiler clothing sheets, 2 cylinder clothing sheets, 1 defector plate, 1 dome cover, 1 sand box in two parts, bolted together with 2 hand hole covers with 2 chains and hooks, 1 chimney with 8 bolts and nuts, also 2 brackets with 2 tap bolts for lamp stand, 2 large splashers for driving wheels with 4 bolts and nuts, 2 small splashers for leading wheels with 4 bolts and nuts, 4 splasher plates for trailing wheels, wood clothing for dome, 1 smoke-box clothing bead, 1 fire box clothing bead, 1 fire-box clothing plate (front), 6 clothing straps with 5 bolts and nuts, 1 clothing strap for fire-box with 2 tap bolts, 2 tank lids, 2 coal box doors, 4 foot-steps with 8 bolts and nuts. | | | | | |
| | 20½-inch cant head bolts and nuts for tanks. | | | | | |
| | 10½-inch cup head bolts and nuts for tanks. | | | | | |
| | 2⅝-inch cant head bolts and nuts for tanks. | | | | | |
| | 2¾-inch cant head bolts and nuts for tanks. | | | | | |
| | 6¾-inch cup head bolts and nuts for tanks. | | | | | |
| | 12½-inch tap bolts for splasher plate. 4⅜-inch tap bolts for fire-box clothing ring. | | | | | |
| | 2⅝-inch tap bolts for fire-box clothing ring. | | | | | |
| | 22½-inch cant head bolts and nuts for splasher plates. | | | | | |
| | 10 screws for cylinder clothing, 11 screws for fire-box. | | | | | |
| | Front clothing plate, wood (teak), for engineman's platform ... | 5 8½ | 3 11 | 3 5½ | ..... | 0 15 2 10 |
| 1 „ | Containing cab top, wood and iron with through bolts and nuts, cab sides with pillars, cab front with window frames and mountings, 4 cab window glasses in small box, 80 cab bolts and nuts, ½-inch diameter, 16 cab bolts and nuts, ⅝-inch diameter, wood clothing for fire-box | 8 8½ | 8 3 | 1 11½ | ..... | 0 19 1 18 |
| 1 „ | Containing ashpan with doors, 2 of ditto forming spark arrestors, 3 single levers split pin, small key, 2 pins and chains, 1 double lever with 3 split pins and washers, 1 small bracket rivetted to 1 door with bolt and split pin, 4 brackets for holding up doors with 8 bolts and nuts, 8 bolts and nuts for fixing ashpan doors, 18 single fire-bars, 2 double fire-bars rivetted together, 1 back end buffer casing with 1 volute spring and 2 washer plates ... ... ... | 4 0 | 3 5½ | 1 8½ | ..... | 0 7 3 0 |
| 1 „ in Crate | Lined with tin, containing 1 front lamp, 2 side lamps, 2 hand lamps, 2 gauge lamps ... ... | 5 7 | 3 5 | 3 1 | | 0 4 2 14 |
| | Total gross weight of one A class engine and tender complete. | | | | 14 14 0 0 | 16 3 2 2 |

13 24
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## APPENDIX G.

*Statement showing particulars of cost, &c., of (Heavy) Broad Gauge and (Light) Metre Gauge Locomotive Engines compiled from returns received from Railway authorities.*

| Class of Engine. | Gauge. | English cost, F. O. B. | Entire Sea Freight. | Loss by Exchange.* | Landing and Insurance charges. | Erection Charges. Labour. | Erection Charges. Materials. | Total cost, exclusive of Indian carriage charges. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | | £ s. d. | £ s. d. | Rs. A. P. | Rs. A. P. | Rs. A. P. | Rs. A. P. | Rs. A. P. | |
| Engine, Heavy L Class (on Contract No. 884 of 1884-85) | 5' 6" | 2,533 5 2 | 115 16 0 | 7,214 12 3 | 495 5 5 | 255 15 0 | 230 11 10 | 34,687 5 10 | *Vide* letter No. 638 D. G. R., dated 9th June 1891, from Manager, North Western Railway. |
| " H B " (on Contract No. 1198 of 1888... | " | 1,852 0 0 | 134 16 1 | 9,228 3 5 | 445 0 4 | 753 2 5 | 524 5 5 | 30,818 12 1 | |
| " Light A " ... | Metre. | 870 0 0 | 100 0 0 | ... | 30 0 0 | 215 0 0 | 138 5 4 | 10,083 5 4 | *Vide* letter No. 3956-59 W.-R., dated 13th May 1891, from the Manager and Engineer-in-Chief, Burma State Railway. |
| " Heavy E " ... | " | 1,465 0 0 | 86 12 4 | ... | 75 0 0 | 280 0 0 | 160 10 8 | 16,031 13 4 | |
| " F " ... | " | 1,303 0 0 | 150 0 0 | 4,544 0 0 | 155 0 0 | 432 0 0 | 284 0 0 | 18,945 0 0 | |
| " O " ... | " | 1,345 0 0 | 150 0 0 | 5,640 0 0 | 257 0 0 | 791 0 0 | 495 0 0 | 21,064 0 0 | |

* Calculated according to the official rate in force for the year in which the engines were received on the line.



## Appendix H.

*Statement showing the quantity and rate per cwt., &c., of ironwork and fittings required in the construction of an open Goods Wagon and Brakevan, respectively, 5' 6" gauge as obtained from the schedule attached to Contract No. 4093 of 6th November 1890.*

| Item number in schedule. | | RATES DELIVERED FREE ON BOARD IN THE PORTS OF LONDON OR LIVERPOOL. | | | | | |
|---|---|---|---|---|---|---|---|
| | | Open Goods Wagon. | | | Brake van. | | |
| | | Weight. | Rate. | Amount. | Weight. | Rate. | Amount. |
| | | Cwt. qrs. lbs. | s. d. | £ s. d. | Cwt. qrs. lbs. | s. d. | £ s. d. |
| 1 | Steel channel, H, and angle bar in underframe ... ... per cwt. | 22 0 15 | 18 0 | 19 18 5 | 22 0 0 | 22 6 | 24 15 0 |
| 2 | Plate in underframe ... ... " | 13 0 23 | 18 0 | 11 17 8½ | 14 3 3 | 22 6 | 16 12 6 |
| 3 | Underframe ironwork ... ... " | 8 1 1 | 30 0 | 12 7 9 | 10 2 11 | 33 6 | 17 15 1 |
| 4 | Buffers ... ... ... " | 6 3 1 | 38 0 | 12 16 10 | 6 3 1 | 38 0 | 12 16 10 |
| 5 | Yorkshire ironwork ... ... " | 4 0 13 | 53 0 | 10 18 2 | 4 0 8 | 53 0 | 10 15 9 |
| 6 | Cast iron work ... ... ... " | 0 2 10 | 11 6 | 0 6 9½ | 5 0 14 | 11 6 | 2 8 11½ |
| 7 | Brake gear ... ... ... " | 1 2 22 | 36 0 | 3 1 1 | 9 2 6 | 37 0 | 17 13 6 |
| 8 | Steel angle, &c., bar in wagon body ... " | 8 3 7 | 25 6 | 11 4 8½ | ... | ... | ... |
| 9 | Plate in wagon body ... ... " | 7 0 25 | 25 6 | 9 4 2 | ... | ... | ... |
| 10 | Body ironwork ... ... " | 3 3 7½ | 30 0 | 5 14 6 | 9 3 13 | 33 0 | 16 5 7 |
| 11 | Panel plates, for brake van ... ... " | ... | ... | ... | 6 1 2 | 25 0 | 7 16 8½ |
| 12 | Hoop iron ... ... ... " | ... | ... | ... | 1 0 15 | 18 0 | 1 0 5 |
| 13 | Bolts, nuts, coach-screws, split pins, and washers ... ... ... " | 1 0 2 | 26 0 | 1 6 5½ | 3 3 8 | 27 3 | 5 4 2 |
| 14 | Rivets ... ... ... " | 1 2 9½ | 24 0 | 1 18 0 | 1 1 0 | 24 0 | 1 10 0 |
| 15 | Iron, wood-screws ... ... per gross. | ... | ... | ... | 583 doz. | 2 0 | 4 17 2 |
| 16 | Galvanized corrugated wrought iron roofing sheets ... ... ... per cwt. | ... | ... | ... | 6 0 3 | 28 0 | 8 8 9 |
| 17 | Galvanized wroughtiron washer bars ... " | ... | ... | ... | 0 1 18½ | 24 0 | 0 10 0 |
| 18 | Galvanized bolts and nuts, coach-screws, and washers ... ... ... " | ... | ... | ... | 0 0 26½ | 56 0 | 0 13 1½ |
| 19 | Gun-metal lamp rings ... ... Each | ... | ... | ... | No. 1 | 3 0 | 0 3 0 |
| 20 | " door handles, with locks (single handle) ... ... ... " | ... | ... | ... | " 1 | 5 6 | 0 5 6 |
| 21 | Gun-metal staples for ditto " | ... | ... | ... | " 1 | 0 5 | 0 0 5 |
| 22 | " escutcheons ... ... " | ... | ... | ... | " 2 | 0 4 | 0 0 8 |
| 23 | " doors hinges 3" × 2" ... " | ... | ... | ... | " 4 | 1 5 | 0 5 8 |
| 24 | " hinges for dog-box lid, 3" × 1½" " | ... | ... | ... | " 4 | 1 4 | 0 5 4 |
| 25 | Gun-metal hinges for dog-box door, 1¾" × 1¾" ... ... ... " | ... | ... | ... | " 4 | 0 10 | 0 3 4 |
| 26 | Gun-metal hinges for guards' glasses, 2" × 1" ... ... ... " | ... | ... | ... | " 4 | 0 10 | 0 3 4 |
| 27 | Gun-metal hinges for letter-box, 2" × ¾" ... " | ... | ... | ... | " 4 | 0 8 | 0 2 8 |
| 28 | " knobs or plates ... ... " | ... | ... | ... | " 6 | 0 5 | 0 2 6 |
| 29 | " spiral spring handles with iron plate ... ... ... " | ... | ... | ... | " 2 | 4 6 | 0 9 0 |
| 30 | Gun-metal bolts for guards' look-out glasses " | ... | ... | ... | " 2 | 1 3 | 0 2 6 |
| 31 | " buttons for guards' windows " | ... | ... | ... | " 2 | 0 3½ | 0 0 7 |
| 32 | " pulleys with cast iron bracket, lower ... ... ... " | ... | ... | ... | " 1 | 4 0 | 0 4 0 |

# Appendix H.—*concld.*

| Item number in schedule. | | | RATES DELIVERED FREE ON BOARD IN THE PORTS OF LONDON OR LIVERPOOL. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Open Goods Wagon. | | | Brake-van. | | |
| | | | Weight. | Rate. | Amount. | Weight. | Rate. | Amount. |
| | | | Cwt. qrs. lbs. | *s. d.* | £ *s. d.* | Cwt. qrs. lbs. | *s. d.* | £ *s. d.* |
| 33 | Gun-metal pulleys, with cast-iron bracket, upper ... ... ... | Each | ... | ... | ... | No. 1 | 5 6 | 0 5 6 |
| 34 | Brass plates and leather straps for windows | „ | ... | ... | ... | „ 2 | 0 4 | 0 0 8 |
| 35 | Iron private locks and plates ... | „ | ... | ... | ... | „ 2 | 0 7 | 0 1 2 |
| 36 | „ bolts and staples for partition doors ... | „ | ... | ... | ... | „ 1 | 2 6 | 0 2 6 |
| 37 | „ butt hinges for partition doors 3" × 1½" ... ... ... | „ | ... | ... | ... | „ 6 | 0 10 | 0 5 0 |
| 38 | Iron hooks and eyes for guards' glasses ... | „ | ... | ... | ... | „ 2 | 0 9 | 0 1 6 |
| 39 | Cast-iron striking plate for guards' spiral spring handles ... ... | „ | ... | ... | ... | „ 2 | 0 7 | 0 1 2 |
| 40 | Copper panel pins ... ... | per lb. | ... | ... | ... | lb. 1 | 1 6 | 0 1 6 |
| 41 | Wrought iron enamelled commode with cast-iron top, teak wood lids, gun-metal hinges, &c., complete ... ... | Each | ... | ... | .. | No. 1 | 140 0 | 7 0 0 |
| 42 | Underframe, underframe and body steel and ironwork for one ballast wagon ... | Set | ... | ... | 100 14 6½ | ... | ... | ... |
| 43 | Underframe, underframe and body steel and ironwork, roofing, lavatory and metallic fittings and panel pins for one brake van ... ... | „ | ... | ... | ... | ... | ... | 160 1 0½ |

Circular No. 2.

1324
AH

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

TO

THE MANAGER, NORTH WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE SUPERINTENDENT OF WORKS, HYDERABAD-UMARKOT RAILWAY.
THE ENGINEER-IN-CHIEF, MU VALEY RAILWAY.
THE ENGINEER-IN-CHIEF, BENGAL ASSAM RAILWAY, NORTHERN SECTION.
THE ENGINEER-IN-CHIEF, EAST CAST RAILWAY.
THE ENGINEER-IN-CHIEF, KISTNA BRIDGE.
THE ENGINEER-IN-CHIEF, MUSHKF-BOLAN STATE RAILWAY.
THE ENGINEER-IN-CHIEF, FRONTIR RAILWAY SURVEYS.
THE ENGINEER-IN-CHIEF, KASHMI RAILWAY SURVEYS.
THE ENGINEER-IN-CHIEF, GOONA-INA RAILWAY SURVEYS.
THE ENGINEER-IN-CHIEF, UJAIN-BOPAL RAILWAY SURVEYS.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

**Rate List, Class E.—Rollg Stock for 1890.**

Calcutta, the 1st March 1892.

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 E Stores, "Rolling Stock," contracted for by the Stores Department of the India Office during 1890.

2. A table giving the average rate per ton, of sea-freight, for Class E Stores imported from England to the several ports in India for State Railways during 1890-91 is prefixed to the Rate List.

I have the honour to be,

SIR,

Your most obedient Servant,

R. A. SARGUNT, Lieut.-Colonel, R.E.,
Officiating Director General of Railways.

*Documents accompanying.*

1. Statement showing the average rate per ton for entire sea-freight on Class E Stores imported from England at the several ports during 1890-91.
2. Rate List, Class E, Rolling Stock for 1890.

The Secretaries to the Governments of Bombay, Madras, 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 Hyderabadand in Mysore, Public Works Department.
The Secretaries to the Agents to the Govern: 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 Accountant General, Public Works Departmet.
The Comptroller General.
The Accountant General, Bengal.
The Consulting Engineer for Railways, Madras.
The Consulting Engineers to the Governmenof India for Railways, Calcutta, Lucknow and Central Division.
The Agent and General Manager, Assam Railays and Trading Company, Limited.

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

13 24/44

R. A. SARGEAUNT, Lieut.-Colonel, R.E.,
Officiating Director General of Railways.

13 24/45

FROM

THE DIRECTOR GENERAL
OF RAILWAYS,

TO

No. 1324 W dt/27.4.92

Communicated to the Comptr. Engineer for Rly.
1/54 ov 15
bw

No 1324 W dt/27.4.92

Circular No. 2.

Dated Calcutta, 1st March 1892.

Received

45

INDIAN STATE RAILWAYS.
RATE LIST, CLASS E.— Rolling Stock for 1890.

G. C. Press, Simla.—No. 824 P. W. D.—9-3-92.—963.

To the Comptr. Engineer for Rly.