

Public Works Dept.

C.S.

Steam Road Roller

TRN/LAN/1#7

No. 392/21

1921

Governor

SUBJECT.

1921

12th May

Previous Paper.

Steam Road Roller.

Telegram to Cr. Agts enquiring price of:

C.S. 1025/19.

MINUTES.

- Minutes from Governor dated 12th May Encl (1)
- Telegram to Cr. Agents dated 13th May Encl (2)
- Letter from Cr. Agents dated 18th May Encl (3)
- Letter from Cr. Agents dated 15th June Encl (4)
- enclosing quotations from:
 - Goodwin Barshy & Co. Encl 4a
 - Edgar Allen & Co. " 4b.
 - Robey & Co. Ltd " 4c
 - Agricultural & General Engineers - " 4d.
 - (consisting letters from Adlam & Porter & Bradford & Perkins.)
 - Marshall Sons & Co. Ltd " 4e.

H.E. the Governor,

Subsequent Paper.

Submitted with C.S. 1025/19., 485/19 & previous

papers.

K. Thompson

A. C. S. 15/7/21.

H.E.S.

Will you please refer to Colonial Engineer
with request that he will report what
plant he recommends for and consider
necessity for maintenance of roads in
the town of Stanley + ^{roads} leading to Peat
Banks.

for
18 July 1921.

Colonial Engineer,

For the favour of your report please.

Subscribed
A. C. S. 18/7/21.

The Hon. Col. Secy.,

I beg to submit the following report and
recommendations.

2. I consider that a Road Roller and Portable Stone
Crusher are required to enable satisfactory work to be
done on the roads in Stanley and those leading to the
Peat Banks. I do not think a scarifier is at the present
time necessary.
3. I have carefully considered the question as to the
most suitable type of Road Roller. Marshall's 5 ton steam
roller and Barford & Perkin's motor roller are both good
good machines. It is a question as to which will prove
the best from every point of view for this Colony.
Having had experience and knowing the work which can be
done by a Marshall roller I favoured this machine, but,
after reading the specification etc of the Barford & Perkins
Motor Roller I am inclined to alter my opinion as to a
Steam Roller being the most suitable for this Colony.

With a steam driven

With a steam driven roller the working parts and adjustments are comparatively simple and the local men have had experience in driving and generally looking after the machinery, whereas with an internal combustion engine the working parts and adjustments are more complicated and, should anything go wrong with the engine the services of a man with technical knowledge would probably be required. This is a consideration in this Colony. On the other hand with an internal combustion engine there would not be the periodical boiler survey etc.

Therefore all things being considered I now beg to suggest that a $5\frac{1}{2}$ to $5\frac{3}{4}$ ton Water Ballast Motor Road Roller-type E- as made by Messrs Barford & Perkins, Peterborough, would be the most suitable Road Roller for this Colony.

4. Portable Stone crusher. I would suggest the purchase of a Portable Stone Crusher as specified by Messrs Goodwin Barsby & Co., Leicester in their letter of 6th. June 1921, para. 6. Size 12"x 6". Price £228 F.O.B. English Port.

R. B. Baseley

Colonial Engineer.
3/8/21.

H. E. the Governor

Submitted

A. C. D.

a. c. d. 3/8/21

No further action at present.

hr

3 Aug 1921

Letter from Crown Agents, 13th July, 1921..Encl..5

CS. 272/21
DATE... 12th May 1921

From Governor to Colonial Secretary.

Will you please have attached telegram
despatched to Crown Agents.

Yrs.

12 May 1921.

C.S. 390/51

①

TELEGRAM.

From : The Colonial Secretary.
To : The Crown Agents for the Colonies.



Dispatched : 13th May..... 19 21 *Time.* 11 a.m.
Received : ----- 19 --- *Time.* ----

PALEOLOGY POLYCLETUS MACQUER MARSHELDER RIMOLAWN CRUSHERS
SCARIFIERS ALSO MOTOR DRIVEN SILVERGOD OBSIDOS TIPULARY.

SECRETARY.

Send full particulars present market prices by mail of
May 19th, rollers steam road, crushers, scarifiers: also
motor driven. Can you obtain from War Department?

Secretary.

56 w
Falkland Is.1493



ALL COMMUNICATIONS
TO BE ADDRESSED TO THE
CROWN AGENTS FOR THE COLONIES,
THE ABOVE REFERENCE AND THE
DATE OF THIS LETTER BEING QUOTED.

4, MILLBANK,
WESTMINSTER,
LONDON, S.W.1.

TELEGRAMS, "CROWN, LONDON."
TELEPHONE 7730 VICTORIA.

18th May 1921

Enclosure.

Sir,

Falkland Islands Requisition No.1493.

I have the honour to acknowledge the receipt of your telegram of 14th May asking us to send particulars and present market prices by the mail of 19th for steam road rollers, crushers, scarifiers, also motor driven, and also asking whether these can be obtained from the War Department.

2. Your telegram was received on 17th inst - there was consequently no time to obtain full quotations from the makers of the various machines mentioned and our experience in obtaining these machines from surplus stores of the War Department has not been satisfactory. In most cases many weeks have been lost in making enquiries as to machines available and it has usually resulted in new machines being purchased ultimately direct from the makers.

3. With regard to steam road rollers the size required is not mentioned and we assume that one of the smaller sizes such as 6 ton or 8 ton single cylinder would be required. The present cost of a 6 ton Aveling & Porter

The Colonial Secretary,
Falkland Islands.

steam

steam road roller with single cylinder piston valve engine is about £1030 f.o.b. London. The cost of an 8 ton similar roller would be about £1200 or a 5 ton roller £900. The cost of a compound roller would be £100 - £200 more, depending on the size of the roller and the cost of fitting a scarifier to the roller would be from £100 - £150. The steam rollers could, if desired, be fitted with firebox suitable for burning oil fuel at an extra cost. Regarding rollers driven by internal combustion engine motors, a copy of Messrs. Barford & Perkins catalogue is attached, this firm having supplied several hundreds of these rollers to our orders for the Crown Colonies. It will be seen from page 7 of the catalogue that rollers are made in about sixteen sizes, the ones chiefly supplied for road making being Nos. 8 - 16. The approximate present prices for these machines are about £700 for type "E" to £820 for type "E3S". The prices quoted for these motor rollers include awning, paraffin carburetter and auxiliary brake, which are included in all standard sizes from the "E" size up to and including "K". If it is desired to order one of these rollers an extra allowance of about £50 should be made for spare parts.

4. With reference to the stonecrushers, as no particulars of size or type are stated, only approximate prices can be given. The cost of a 12" x 8" steel frame stonebraker by Robey & Co. fitted with manganese steel jaws and complete with revolving screen and driving gear would be £212 f.o.b. and the power required to drive about 12 BHP. A 16" x 10" similar machine would cost £225. If a portable machine is required, the price would be somewhat increased owing to the cost of the road wheels. Messrs. H.R.Marsden's present price
for

for their 12" x 10" portable "X" type stonebraker with C.I. frame and fitted with screening apparatus would be £580 f.o.b.

5. We hope these preliminary particulars will be sufficient to give an indication of the prices of the machines mentioned and definite quotations will be obtained and telegraphed out if desired. Before doing so, however, we shall be obliged if you will furnish us with more definite particulars of the sizes of rollers and crushers required.

I have the honour to be,

Sir,

Your obedient Servant,



for Crown Agents.

MARSHALL, SONS & CO^Y L^D
ENGINEERS.

LONDON OFFICES.

3, LONDON WALL BUILDINGS,
— E. C. 2. —

TELEGRAMS FOR WORKS, "MARSHALLS, GAINSBOROUGH"
TELEPHONE N^o 125 GAINSBOROUGH (3 LINES.)

TELEGRAMS FOR LONDON OFFICE "ENGINE, AVE. LONDON"
TELEPHONE N^o 1667 LONDON WALL.

CODES.
OUR OWN, A.B.C. (4^Y & 5^Y ED^M) A.I. (1886 ED^T)
ENGINEERING, LIEBERS, WESTERN UNION

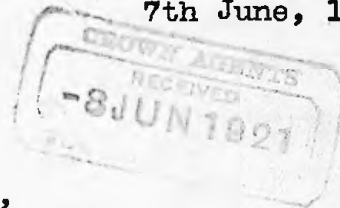


Britannia Iron Works, Gainsborough.
ENGLAND

REFERENCES

OURS	WT/GS/Q.	YOURS	
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7th June, 1921.



The Crown Agents for the Colonies.,
4, Millbank,
Westminster,
LONDON. S.W.I.

Gentlemen,

W/Falkland Islands 1493/1.

With reference to your esteemed enquiry of the 30th ultimo., we now have pleasure in returning your Schedule, with our price duly filled in for the 5 ton Steam Road Roller, and we hope to be favoured with your valued order.

We send you a specification and drawing of the Roller quoted for, together with separate pro-forma invoice giving our prices for suitable spare parts.

Soliciting your esteemed order.

We are, Gentlemen,

Your obedient Servants,

MARSHALL SONS & COMPANY, LIMITED.

ENGINEERS & BOILER MANUFACTURERS.

Britannia Iron Works,
GAINSBOROUGH,

ENGLAND.



LONDON
City Offices at
3, London Wall Buildings, E.C. 2.
(Second Floor.)

CALCUTTA
Offices and Go-Downs:
99, Clive Street.

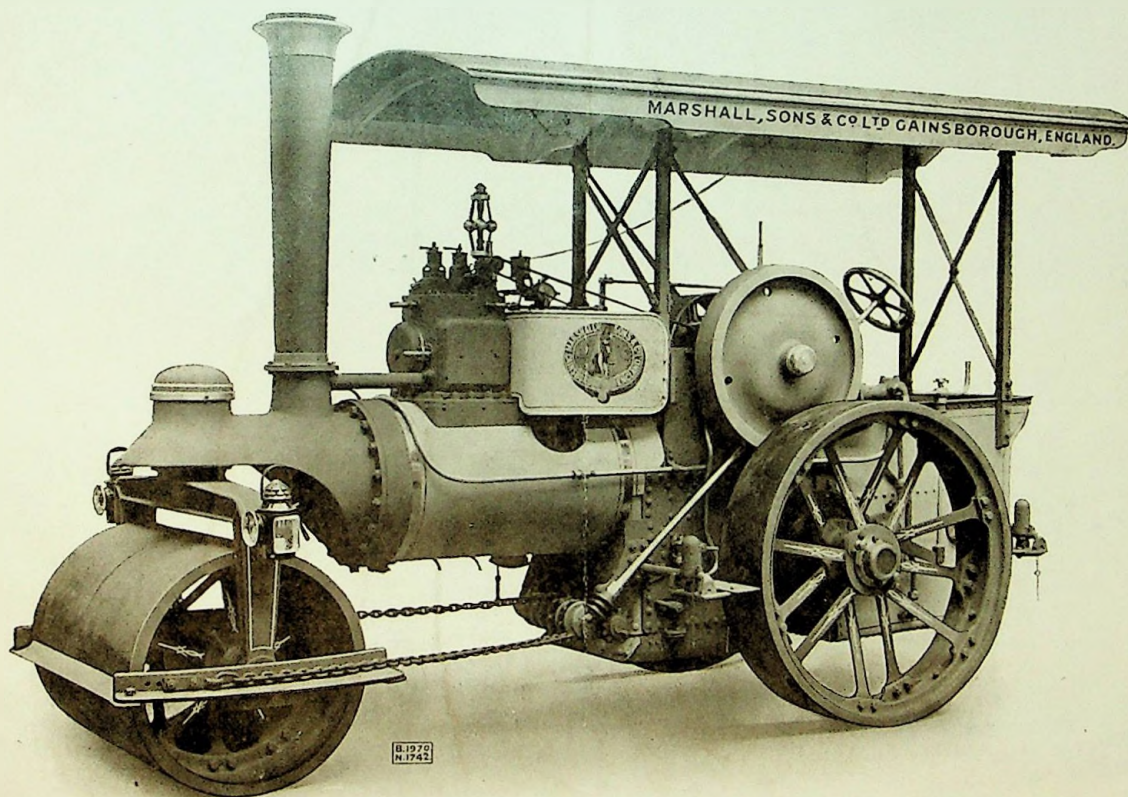
BOMBAY
Offices and Go-downs:
Marshall's Buildings,
Ballard Road.

Also at MADRAS, LAHORE, BEZWADA & TANJORE.



Canadian Depôt: SASKATOON, SASKATCHEWAN.

W/ Falkland 1493/1.



Specification

OF A

“MARSHALL”

IMPROVED PATENT SINGLE CYLINDER

STEAM ROAD ROLLER

SUITABLE FOR 180 LBS. WORKING PRESSURE

Illustrations must be considered as general representations of our manufactures. We reserve the right to modify details according to improved practice.—M.S. & Co. Ltd.

To

The Crown Agents for the Colonies.

SPECIFICATION

OF A

"MARSHALL"

IMPROVED PATENT SINGLE CYLINDER

STEAM ROAD ROLLER

FOR 180 lbs. WORKING PRESSURE

Cylinder	The Engine to have one steam-jacketed Cylinder made of a special mixture of cast iron, and carried on a planed steel fixing riveted to boiler barrel. The Slide Valve to be made of bronze , truly faced, and fitted with steel valve spindle with brass adjusting nuts. The Starting Valve to be placed at the top of the cylinder to ensure dry steam being supplied. The cylinder to be fitted with Drain Cocks controlled from the foot-plate, Mechanical Lubricator , and Improved Double "Pop" Safety Valve .
Piston	The Piston to be of cast iron, fitted with cast iron spring rings.
Piston Rod	The Piston Rod to be of steel, firmly attached to the piston by a steel nut, and to the crosshead by a steel cotter.
Crosshead	The Crosshead to be of best malleable iron, fitted with steel gudgeon and large cast iron adjustable slide blocks.
Connecting Rod	The Connecting Rod to be of best hammered wrot-iron, turned and polished, and fitted with adjustable gunmetal bearings at each end.
Crankshaft	The Crankshaft to be of steel, supported in extra long adjustable gunmetal bearings.
Fly Wheel	The Fly Wheel to be of the "solid disc" pattern, truly turned and keyed to the crankshaft, and of ample width for driving machinery by a belt.
Eccentrics	The Eccentrics to be made of cast iron, firmly keyed to the crankshaft, and fitted with adjustable cast iron eccentric straps, connected to the link motion with wrot-iron eccentric rods with tee ends.
Link Motion	Link Motion Reversing Gear to be of the best wrot-iron, all joints and pins deeply case-hardened. Suitable Reversing Lever and Notch Plates to be arranged at the footplate. <i>This gear is designed to ensure the utmost economy in the use of the steam.</i>
Boiler	The Boiler to be of the Locomotive-Multitubular type , of high evaporative capacity, constructed throughout of the best Steel Plates , double-riveted in the longitudinal seams, in the transverse seams of the side plates and junction of the barrel with the firebox. All holes to be drilled, and riveting done by machinery. The Firebox to be made of steel, and to embody the " Marshall " Patent Cambered Top . The Boiler throughout to be of ample strength for a working pressure of 180 lbs. per square inch , and tested by hydraulic pressure to 300 lbs. per square inch before leaving our Works. The Boiler to be fitted with best quality tubes , $1\frac{1}{2}$ inches external diameter. The front end of the Boiler to be provided with a strong flanged ring, to which the smokebox and the fore-carriage casting are securely bolted. [This arrangement permits of the easy conversion of the Roller into a small Traction Engine at any time].

Governor of the "pickering" type connected direct to the equilibrium throttle valve.

Tender	A strong steel flanged Tender to be securely bolted to the extended side plates of the Boiler, the part below the driving footplate forming a water tank , and a coal bunker being arranged above it. A strong wrought-iron draw-bar to be riveted to the sides and back of the tank, and fitted with the necessary draw-pin.
Boiler Mountings	The Boiler to be fitted with wrought-iron Chimney , with brass top. Firedoor with air regulator and baffle plate, Furnace bars , Ash pan with 2 draught regulating doors, set of gunmetal gland-packed " Reflex " Water Gauges with Guard , Two Test Cocks , Blow-off Cock , Pressure Gauge , Steam Jet Cock , and 2 Feed Check Valves , each with cock interposed between check valve and Boiler.
Pump	A continuous-action geared-down Feed Pump of ample capacity to be supplied, fitted with gunmetal plunger, gland, valves and seats, and the necessary suction, delivery and return pipes.
Injector	A reliable Injector of improved construction to be placed inside the tender for feeding the Boiler when the Engine is standing.
Gearing	Motion to be imparted to the Hind Rollers by a train of best crucible cast steel Gearing designed to give two speeds on the road. The change-speed gearing to have machine-cut teeth. By means of sliding pinions, fitted on the crank-shaft, either speed can be employed, or the Engine placed out of gear, as may be required.
Guards	All the working parts of the Engine and Gearing to be suitably protected by wrot-iron guards .
Intermediate Shaft	The Intermediate Shaft to be of best mild steel, truly turned and supported in gunmetal bearings at each end.
Main Axle	The Main Axle to be of best axle steel.
Main Axle Boxes	These Boxes to be made of cast steel and fitted with long gunmetal bearings.
Brackets	All the Brackets carrying the shafts to be of cast steel, provided with gunmetal bearings, and fitted to holes in the horn plates of the Boiler and securely bolted thereto.
Steering Gear	The Steering Gear to be arranged to be operated from the footplate of the Engine, motion being imparted to the front rollers by means of a worm and wheel and extra strong wrought-iron chains.
Fore-Carriage	The Fore-carriage of improved construction to be firmly bolted to the Boiler. To consist of a strong casting with internal block-and-swivel, and cast steel fork, arranged to allow the front rollers to accommodate themselves in any position to uneven roads, and to facilitate the turning of sharp corners.
Rollers	The Hind Rollers to be fitted with cast iron bosses, bushed with gunmetal, wrought-iron spokes and Patent WROUGHT IRON Rims , fitted with Patent Spring Scrapers back and front . The Front Rollers to have cast iron WROUGHT IRON rims and bosses with wrought-iron spokes, and to be constructed so as to well overlap the inner track edges of the Hind Rollers.
Brake	A powerful Friction Brake to be fitted to the hind axle, and operated by a screw handle within easy reach of the attendant. <i>If this engine is intended for conversion into a Steam Traction Engine, Rim Brakes to both hind rollers should be fitted in lieu of the axle brake.</i>
Lubrication	In addition to the Mechanical Oil Pump for cylinder, all working parts to be provided with suitable oilers to ensure thoroughly efficient lubrication.
Outfit	The Outfit to consist of Wrought-iron , Firing Tools, Flexible Tube Brush, set of Spanners, Lamps, Oil Feeder, Tundish, and spare Gauge Glass.
General Remarks	The whole of the foregoing to be of the best materials, and the workmanship throughout of the highest description.

Awning over driver and Engine with side curtains to be supplied.
One two type fixed Scarifier complete with the necessary lines.

To *The Crown Agents for the Colonies*

GENERAL DIMENSIONS
OF A
"MARSHALL"
5 TON IMPROVED SINGLE CYLINDER
STEAM ROAD ROLLER.

	DIMENSIONS.
Diameter of Cylinder	6 1/2"
Length of Stroke of Piston	9"
Diameter of Crankshaft	2 3/4"
Diameter of Fly Wheel	2'-8 1/2"
Width of Face of ditto	5"
Number of Boiler Tubes	34
Capacity of Water Tank, in gallons	80
Capacity of Coal Bunker, in cwts.	3
Diameter of Main Axle	4 1/4"
Diameter of Hind Rollers	4'-6"
Width of Face of ditto	12"
Diameter of Front Rollers	2'-11"
Width of Face of ditto	24"
Extreme Length of Engine	16'-6 1/2"
Extreme Width over Hind Rollers	5'-9"
Extreme Height to top of Fly Wheel	7'-0 3/4"

MARSHALL, SONS & CO., LTD.

DATE *June 3rd* 1921.

To *The Crown Agents³ for the Colonies.
London.*

78 W
Falkland Is. 1493

ALL COMMUNICATIONS
TO BE ADDRESSED TO THE
CROWN AGENTS FOR THE COLONIES,
THE ABOVE REFERENCE AND THE
DATE OF THIS LETTER BEING QUOTED.

TELEGRAMS. "CROWN, LONDON."
TELEPHONE, 7730 VICTORIA.



4, MILLBANK,
WESTMINSTER,
LONDON. S.W. 1.

13th July, 1921

Requisition No. 1493.

Sir,

With further reference to our letter No. 68 dated 15th June giving particulars and price of road rollers etc. I have the honour to inform you that a reduction in prices has been made in the road roller offered by Messrs. Aveling & Porter, the price being now about 15% lower.

2. The 5 to 6 ton Aveling & Porter steam roller is fitted with built up roller wheels in order to reduce weight. The same roller fitted with wheels having renewable cast iron rims would weigh about 7.1/2 tons empty and would cost only £890 for single cylinder piston valve roller or about £1000 for compound roller, excluding scarifier and spare parts which would be as for the 5 to 6 ton roller.

3. Should it be decided to order either of the above rollers the indent should state what fuel the machine is to run on.

I have the honour to be,

Sir,

Your obedient servant,

The Colonial Secretary,
FALKLAND ISLANDS.

for Crown Agents.

68 W
Falkland Is. 1493

ALL COMMUNICATIONS
TO BE ADDRESSED TO THE
CROWN AGENTS FOR THE COLONIES.
THE ABOVE REFERENCE AND THE
DATE OF THIS LETTER BEING QUOTED.

TELEGRAMS. "CROWN. LONDON."
TELEPHONE. 7790 VICTORIA



15th June, 1921.

Requisition No. 1493.

Sir,

With further reference to our letter No. 56 dated 18th May in reply to your telegram of the 15th May asking for particulars and present market prices for steam or motor road rollers and stone crushers, we find that an enquiry for similar machines was made in 1919 through the Colonial Engineer, Mr R.B. Baseley, in accordance with instructions in your letter No. 332 of the 15th April 1919.

2. Tenders were obtained at that time and submitted to Mr Baseley who recommended a 5-ton steam road roller of Messrs Marshall's make and a 12" x 6" portable stone crusher by Messrs Goodwin Barsby & Company. Tenders have accordingly been invited for these and similar machines and the following tenders are enclosed for your information :-

ROAD ROLLERS

Messrs Marshall & Sons, single cylinder steam road roller weighing about 5 tons empty. Cost including two-tine scarifier awning over driver and engine etc., £844 f.o.b. London. Spare parts suggested £68 extra. Delivery 10 weeks.

Messrs Aveling & Porter single cylinder 5 to 6 tons steam road roller with piston valves, awning over engine and tender etc., £1,095. Two tine scarifier £140 extra. Spare parts suggested £50 extra. The firm's alternative price for steam roller with compound engine and piston valves would be about £120 more.

Stonecrushers/

The Colonial Secretary,

Falkland Islands.

STONECRUSHERS

Messrs Barford & Perkins Type E motor roller with paraffin carburettor £755. Scarifier £130. Spares £51.

✓ Messrs Goodwin Barsby portable stone crusher 12" x 5" fitted with revolving screen having perforations $\frac{1}{8}$ ", $\frac{3}{8}$ ", $1\frac{1}{2}$ " and $2\frac{1}{4}$ " would cost about £228 f.o.b. Delivery 21 days.

✓ Edgar Allen & Co.Ltd., 12" x 6" -do- £334 f.o.b. Delivery 50 days.

✓ Messrs Robey & Company 10" x 7" solid steel frame portable stone breaker with revolving screen as above £209 f.o.b. Delivery 5 weeks.

3. Should it be desired to accept any of these tenders please return the quotation to us together with an indent authorising the supply.

I have the honour to be,

Sir,

Your obedient servant,

W. J. Paton

for Crown Agents,

The Crown agents for
the Colonies.
London

Britannia Iron Works,
Gainsborough, June 3rd 1921

ENGLAND.

TO Marshall, Sons & Co. Limited:

One per cent above Bank of England rate
with a minimum of
Five per cent interest charged on Overdue Accounts.

Terms Nett cash

£ s. d.

Spare parts for 5 ton
Single cylinder Road Roller.

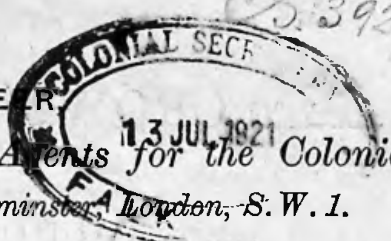
1 set of crankshaft brasses.	7-10-0
1 set of intermediate bushes.	5-0-0
1 set of axle box bushes.	11-17-6
1 pair large end connecting rod brasses.	" " "
1 pair small end ditto.	2-15-0
1 Valve plunger bush and nut.	1-0-0
1 set of piston rings	1-12-6
1 pump plunger complete with outside joint.	1-16-6
2 pump gearing bracket bushes.	" " "
1 pair pump rod brasses.	2-6-6
1 pump gland.	1-10-0
1 set of pump valves.	1-5-0
1 pressure gauge	1-5-0
3 tube brushes	" 6-3
1 set of firebars.	2-5-0
1 fusible plug & 6 cones	" 7-6
6 Boiler tubes.	2-10-0
2 bushes for hind rollers	3-8-6
4 bushes for front rollers	2-8-0
	8-17-6
	9-12-6

£ 67-13-3

packed and delivered along
with Roller

(48)

B.392/21



W

THE CHIEF ENGINEER
Office of the Crown Agents for the Colonies,
4, Millbank, Westminster, London, S.W.1.

FALKEAND IS.1493/1

The above file mark must be quoted on all communications regarding this contract.

To:—
Messrs Marshall Sons & Co.Ltd.,
Britannia Iron Works,
Gainsborough.

Indent No: -----

Account

Dept.

Tender to the Crown Agents for
the Colonies for the supply of } Steam Road Roller

FOR INSTRUCTIONS AS TO TENDERING, SEE BACK OF LAST PAGE.

NO. OF ITEM.	QUANTITY.	DETAILED DESCRIPTION OF ARTICLES.	RATE.	AMOUNT.
1	1	<p>Unless otherwise stipulated in the Crown Agents' Specification the address must be stencilled or painted on the articles or packages. Paper or Parchment labels are not to be used. Articles which are loose or bundled and are too small to bear the address are to be marked with metal labels securely fastened with wire.</p> <p>Steam road roller about 5 tons empty. The roller is required to be suitable for climbing fairly steep gradients say 1 in 7, and is to be complete with governor feed pump and injector. An awning over the driver and engine is required for protection from the weather also a pulley for driving stonebreaker.</p>		£ 844-0-0
2	1	<p>Scarifier suitable for fixing the above mentioned roller.</p> <p>The work is to be complete with the usual set of tools and is to comply with Crown Agents' Specification No.75 dated January 1914.</p> <p>Full particulars and illustration of the roller offered should accompany the tender.</p> <p>A detailed priced list of the spare parts which it is proposed should be sent out with the roller should also accompany the tender.</p>		£ 844-0-0
VH		Carried forward		£ 844-0-0

Specr No.75

August, 1913.

CROWN AGENTS FOR THE COLONIES.

GENERAL CONDITIONS OF CONTRACT No. 1.

- | | |
|---|--|
| Definitions. | 1. In these conditions and in any specifications or special conditions annexed hereto—
(a) The words "Crown Agents" shall mean the Crown Agents for the Colonies.
(b) The word "Engineer" shall mean the Consulting Engineer or Engineers for the time being of the works for which the work under this Contract is required.
(c) The word "Inspector" shall mean the Chief Inspecting Engineer appointed by the Crown Agents to inspect the work.
(d) The word "Colony" shall mean the Colony or Protectorate for which the work is intended.
(e) The word "Contractor" shall mean any person or persons whose tender for the work referred to shall be accepted by the Crown Agents.
(f) The word "work" shall mean materials of every kind in every stage of their preparation. |
| Contract not to be sublet. | 2. The Contractor shall not without the written consent of the Crown Agents assign or sublet this Contract or any part thereof nor allow any portion of the work to be done otherwise than in his own establishment. |
| Contractor to indemnify Crown Agents.
Alterations. | 3. The Contractor shall indemnify the Crown Agents against all claims at any time on account of patent rights or royalties whether for manufacture or for use in the Colony.
4. The Crown Agents or the Engineer shall have the power of requiring reasonable alterations in the work or in any of its details and if such alterations do not involve extra expense no payment shall be made in respect of them. If the alterations diminish the value of the work to be done the Contractor shall allow a reduction in the contract sum of such amount as the Engineer shall certify to be reasonable or as shall when there is no Engineer be agreed upon. |
| Payment for extra work. | 5. The Contractor shall not receive payment beyond the Contract sum for any work which he may consider should be paid for as an extra unless such work shall have been ordered in writing by the Crown Agents as extra work. |
| Additions or deductions. | 6. The Crown Agents shall have the power of ordering reasonable additions to or deductions from the quantities or weights specified and these additions or deductions shall be allowed for at the Contract rates. |
| Extension of time for additions. | 7. In the event of additions to the quantities being ordered the Crown Agents may if they think it necessary extend the time for delivery to such extent as they may consider reasonable and proper. |
| Discrepancies between Drawings and Specification. | 8. Should there be any discrepancy between the Contract Drawings and the Specification or any inconsistency or omission in either of them reference must be made to the Inspector (or to the Crown Agents when no Inspector has been appointed) for an explanation and the Contractor will be held responsible for any errors that may occur in the work through neglect of this precaution. |
| The work to be delivered complete. | 9. The Contractor shall deliver the whole of the work complete in all its parts and furnished with every necessary detail and fitting notwithstanding any omission or inconsistency in the Contract Drawings and Specification. |
| Inspector to approve methods. | 10. Before proceeding to execute any work the Contractor shall obtain the Inspector's approval of the manner in which the Contractor proposes to execute each portion of the work and shall furnish such drawings or information as the Inspector shall require. |
| Contractor to take all risks. | 11. The Contractor shall take all risks of accident or damage to the work from whatever cause arising and shall be responsible for the sufficiency of all means used by him for the fulfilment of the Contract and shall not be relieved from such responsibility by any approval which may have been given by the Crown Agents the Engineer or the Inspector. |
| Means of testing. | 12. All labour assistance tools gauges articles or apparatus which the Inspector may require for the purpose of testing inspection or gauging shall be provided by the Contractor free of charge. |
| Work to be to satisfaction of Inspector. | 13. The work is to be executed in strict conformity with the Contract Drawings and Specification. The materials and fittings of every kind used are to be free from defects and unless otherwise specified are to be of the best description of their respective kinds. The workmanship is to be of first class character and the degree of finish such as the Inspector shall require. |
| Powers of Inspector. | 14. The Inspector will adopt any means he may think fit to satisfy himself that the materials specified are actually used and he shall have power throughout the Contract either personally or by deputy to inspect in any manner he may think fit without giving previous notice the entire work or any part thereof at every stage of progress and wherever the work or any part thereof may be in progress; to amend and alter anything he may think fit; and to reject any parts of the work of which he may disapprove. If any work is so rejected the Contractor shall at once execute it afresh to the entire satisfaction of the Inspector. |
| Notice to be given to Inspector. | 15. The Contractor shall give the Inspector at least one week's notice in writing previous to any of the work being ready for inspection. |
| Check tests or analyses. | 16. When tests or analyses are considered necessary by the Engineer or Inspector in addition to those made by the Inspector on the Contractor's or Sub-Contractor's premises the tests or analyses will be made by persons appointed by the Crown Agents. The Contractor will pay the cost of supply and carriage of samples. The cost of the tests or analyses will be paid by the Crown Agents if they show the material to be in accordance with the Specification; but if not their cost will be borne by the Contractor. |
| Payment by weight. | 17. The Contractor shall if required weigh the whole or any portion of the work in the presence of the Inspector or his deputy and where the work is to be paid for by weight the Contractor shall only be paid for the net weights delivered. Notwithstanding the existence of any trade custom the weight of wrappers battens or other material used in packing shall not be included in the weight for payment. |
| Packing. | 18. The Contractor must provide and include in his Contract sum the cost of all packing including cases materials and labour. He will be held responsible for the work being so packed as to ensure its being free from loss or injury on arrival at its destination in the Colony. |
| Inspector's certificates. | 19. Until the Inspector shall have given his certificate of approval none of the work will be considered as accepted by the Crown Agents nor must it be sent away and should any defects be discovered before shipment they must be immediately remedied by the Contractor. |
| Place of delivery. | 20. The work is to be delivered free on board vessels lying in any dock alongside any pier or wharf or in any part of the stream at any of the ports named in the Tender as the Crown Agents may direct; the cost of such delivery must be included in the Contract sum. Should the Crown Agents require delivery to be made at a port not named in the Tender the Contractor shall only receive the exact additional or less (as the case may be) cost of delivery at that port. The work will remain at the Contractor's risk in all respects until delivery has been taken when the Crown Agents' risk will begin. |
| Dock and Harbour dues. | 21. All Dock and Harbour dues and charges (including Clyde dues) are to be paid by the Contractor and must be included in the Contract sum but all goods shipped by the Crown Agents other than coal coke and railway materials and stores are exempt in the United Kingdom from Dock and Harbour dues or charges except in London and Bristol where full Dock dues are payable on Railway Materials and Stores and Coal and two-thirds Dock dues on other Goods. |

(For continuation of General Conditions of Contract and instructions to firms tendering, see back of last page.)

NO. OF ITEM.	QUANTITY.	DETAILED DESCRIPTION OF ARTICLES.	RATE.	AMOUNT.
		Amount brought forward		844-0-0
			Cost of packing for export ... £	
			Cost of delivery f.o.b. London ... £	
			(a) Alternative, cost of packing and postage to Colony ... £	
			TOTAL £	844-0-0
		(b) DEDUCT:—		
		Trade and Shipping Allowances per cent. on £	£	
		Cash Discount for prompt payment per cent. on £	£	
		Amount payable (including all charges) on receipt of Bills of Lading or Parcels Receipt	£	844 0-0
		(c) Alternative price for delivery f.o.b. at <u>Humber</u>	£	
		<u>ports</u>	£	838-0-0

(a) If economy can be effected by so doing, the goods should be sent by Parcel Post, sub-divided if necessary.

(b) Discounts and trade allowances of every kind to be deducted, so as to show the nett amount payable. If no discounts are allowed the tender should be marked nett. The Crown Agents claim to be placed on the footing of the most favoured wholesale shippers, and they will decline to deal a second time with any Firm that does not so treat them.

(c) Firms may quote alternatively for delivery at any other port at which they can deliver f.o.b. cheaper than in London.

We hereby agree to supply, in accordance with General Conditions of Contract No. 1, dated August, 1913, on back hereof, the articles above specified, at the price set against each, which includes all charges (see Note), and to deliver the same free on board ship within 10 weeks days from the date of order.

To THE CROWN AGENTS FOR THE COLONIES.

Signature Marshall Sons 16th Street

Address Britannia Iron Works, Gainsborough

Dated this 3rd day of June 1921

NOTE.—Dock and Harbour Dues and Clyde Dues.
Railway Material, Railway Stores, Coal and Coke.—All Dock, Harbour Dues and Charges (including Clyde Dues) are payable at all ports by the Contractor.
Other Stores. London and Bristol.—Two-thirds of published rates are payable by Suppliers.
 Southampton. —Dock charge for labour is payable by Suppliers.
 Other Ports. —Crown Agents' Cargo is exempt.
Port of London Authority Port rate.—All Crown Agents' Cargo is exempt. Date of issue 30 MAY 1921

THE FOLLOWING SPACE TO BE LEFT BLANK BY FIRM TENDERING.

GENERAL CONDITIONS OF CONTRACT No. 1—(continued).

- Freight arrangements.** 22. Freight for the conveyance of the work to the Colony will be engaged by the Crown Agents. Shipping particulars will be sent as soon as possible by the Contractor to the Crown Agents' Shipping Office at 13 Great St. Helon's London E.C. 3 whence instructions will be issued for delivery to a ship. Should the work not be delivered in accordance with such instructions the Contractor shall be liable to the Crown Agents for any loss or expense which they may incur by reason of the non-delivery. The Crown Agents shall however have the power to delay deliveries for any reasonable period to suit their shipping arrangements and the work will remain at the Contractor's risk in all respects until delivery has been taken.
- Dangerous goods.** 23. Packages containing dangerous goods (see Section 446 Merchant Shipping Act 1894) must be marked by the Contractor as provided in the Statute and specially reported to the Crown Agents' Shipping Office attention being also drawn to them in the Shipping particulars.
- Invoices and shipping particulars.** 24. Directly the work is ready for shipment the Contractor will give notice in writing to the Crown Agents' Shipping Office and he will forward to the Crown Agents at 4 Millbank S.W. 1 four copies of invoice and three copies of shipping particulars showing the number marks measurements weight (gross and net) and contents of each package. The invoices should be made out on special forms supplied by the Crown Agents from whom copies can be obtained on application. Packing particulars should be made out on Contractor's own forms. Invoices should follow the wording and order of the tender form whenever this can be done without being misleading as to the nature of the goods or the package in which they will be found. They must give full trade descriptions of each article. When section letters page numbers item numbers or other identifications are given in the form of tender these must be quoted on the invoices. If the work is shipped by instalments separate invoices and shipping particulars will be rendered for each instalment and will enumerate only what is included in that instalment.
- Payment.** 25. Subject to any deductions to which the Contractor may become liable under the Contract payment will be made to the Contractor within reasonable time after the bills of lading have been received by the Crown Agents provided that the Inspector shall have given his certificate that the work has been completed to his entire satisfaction.
- Contract time for delivery.** 26. The contract time for delivery shall be the period or periods named in the Tender or agreed upon with the Crown Agents reckoned from the date on which the work is ordered by the Crown Agents.
- Contractor to give notice of delay.** 27. Should the Contractor anticipate at any time during the execution of the Contract that he will be unable to deliver the work within the Contract time he must at once give notice accordingly in writing to the Crown Agents explaining the cause of the delay.
- Deductions for delay.** 28. Failure to deliver within the Contract time will in addition to any other liabilities incurred by the Contractor under this Contract subject the Contractor to a deduction from the Contract sum as and for liquidated damages and not as a penalty of 1 per cent. per week on the value of any work which may be in arrear unless the Crown Agents are of opinion that such delay has arisen from causes which were unavoidable and could not be foreseen or overcome by the Contractor in which case the Crown Agents on the advice of the Engineer when there is one will decide the extent if any to which the deductions shall be remitted. Delays in the supply of materials to the Contractor will not be admitted as a ground for the remission of deductions excepting so far as they may have arisen from strikes or other causes which could not be foreseen or overcome by the manufacturers or vendors of such materials.
- Drawings, &c.** 29. Any drawings tracings or descriptions specified must unless otherwise specified be furnished by the Contractor with the first consignment of the work to which they refer and payment will not be made by the Crown Agents until such drawings tracings or descriptions have been furnished to the satisfaction of the Engineer.
- Crown Agents may determine Contract.** 30. Should the Contractor become bankrupt or insolvent or should he suspend payment or compound with his creditors or from any other cause whatever become unable or fail to carry on the Contract with efficiency: or should he not progress with the work in the manner intended by the Contract or not have work ready for delivery in conformity with the terms of the Contract: or should his preparations for commencement and his subsequent rate of progress be so slow from any cause whatever that in the opinion of the Crown Agents he will be unable to complete the work by the expiration of the specified period: or should he refuse or neglect to comply with the directions given him by the Crown Agents or Inspector or in any other respect act contrary to the terms of the Contract: then the Crown Agents on the advice of the Engineer when there is one shall have power to declare the Contract at an end and the Contractor shall only be paid for such portion of the work as shall have been actually delivered at the date of such declaration after deduction of any sum leviable under the conditions of the Contract. The Contractor shall in addition be liable to pay to the Crown Agents or the Crown Agents shall be entitled to further deduct the value of any expense loss or damage (including any excess difference between the Contract price of the work to be done under this Contract or of such portion thereof as may not have been delivered at the date of such declaration as aforesaid and the price which the Crown Agents may have to pay for similar work provided in lieu of such portion as may not have been so delivered) which the Crown Agents may be put to or sustain by reason of or in connection with the Contractor's breach of Contract.
- Discrepancies in Conditions** 31. Should there be any discrepancy between these General Conditions and any Special Conditions or Specifications of this Contract the Special Conditions or Specifications shall be followed in preference to the General Conditions.
- Personal liability of Crown Agents.** 32. Nothing in these General Conditions or in any part of the Contract shall be deemed to impose any personal liability on the Crown Agents or on any of them.
- Disqualification of Members of the House of Commons.** 33. In pursuance of the Act 22 Geo. III. Cap. 45 no Member of the House of Commons shall be admitted to any share or part in the contract or to any benefit to arise therefrom except so far as Section 3 of the Act applies. This section runs as follows:—
 "Provided always, and be it enacted, that nothing herein contained shall extend, or be construed to extend, to any contract, agreement, or commission, made, entered into, or accepted, by any incorporated trading company in its corporate capacity, nor to any company now existing or established and consisting of more than ten persons, where such contract, agreement, or commission, shall be made, entered into, or accepted, for the general benefit of such incorporation or company."
- FAIR WAGES CLAUSES.**
- Fair Wages Clauses.** 34. The Contractor shall pay rates of wages and observe hours of labour not less favourable than those commonly recognised by employers and trade societies (or, in the absence of such recognised wages and hours, those which in practice prevail amongst good employers) in the trade in the district where the work is carried out. Where there are no such wages and hours recognised or prevailing in the district, those recognised or prevailing in the nearest district in which the general industrial circumstances are similar shall be adopted. Further, the conditions of employment generally accepted in the district in the trade concerned shall be taken into account in considering how far the terms of the Fair Wages Clauses are being observed. The Contractor shall be prohibited from transferring, or assigning, directly or indirectly, to any person or persons whatever, any portion of his contract without the written permission of the Crown Agents. Sub-letting, other than that which may be customary in the trade concerned, shall be prohibited. The Contractor shall be responsible for the observance of the Fair Wages Clauses by the Sub-Contractor.
35. The Contractor shall cause the preceding condition to be prominently exhibited for the information of his work-people on the premises where work is being executed under the Contract. Printed copies of such notice will be supplied on application to the Crown Agents. In trades where it is the practice, the Contractor shall also cause to be exhibited, or have available for inspection, a copy of any signed agreement determining the rates of wages and hours of labour commonly recognised by employers and trade societies in the district.
36. The Contractor shall keep proper wages books and time sheets, showing the wages paid and the time worked by the work-people in his employ in and about the execution of the Contract, and such wages books and time sheets shall be produced whenever required for the inspection of any officer authorised by the Crown Agents.

INSTRUCTIONS TO FIRMS TENDERING.

The original tender form is to be filled up complete in every respect and delivered, properly sealed, by hand or by post, not later than noon on the date named on the face of the form. If no such date appears, the form should be returned as soon as possible.

The duplicate tender form is intended to be retained by the firm.

Both forms should be returned to the Crown Agents at once if the firm is unable or unwilling to tender.

The Crown Agents do not bind themselves to accept the lowest or any tender and they reserve to themselves the right of accepting any tender wholly or in part.

Copies of any drawings referred to in the Specification can be seen at the Crown Agents' Office, and can be obtained from Mr. W. J. Harrison, 7, Carteret Street, S.W. 1, on payment of a sum not exceeding 2/- where one print only is required, and 2/- for the first print and 1/- for the second and all succeeding prints when more than one drawing is quoted on the tender form. These rates are for prints not exceeding 40" x 29", larger sheets being charged at special rates.



16/3/2011 ROSS RD, STANLEY, 1936/7; DURING TAPPING OF THE ROAD.

L-R.

BOY IN MOTORISED WHEELCHAIR WAS THE SON OF
MR. S.I.S. ROBERTS, P.W.D. SUPERINTENDANT.

FRED ALLAN, FATHER OF JOHN J. CLIVE

GEORGE KELWAY, WHO WAS ON THE ROLLER FOOTPLATE
AT THE TIME OF IT'S 1925 ACCIDENT.

TOM DUFFIN, FOREMAN.

PETER HILLS, DRIVER OF THE MARSHALL ROLLER.

FROM JOHN ALLAN'S COLLECTION; *David Red.*