M.R.O. 1—77,006—8-6-37.

(1) Number of pages 8

(2) Date of repair 23-11-38

(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Public Works **DEPARTMENT.**

Cons. 20.1.1860

G.O. No.	117	Press / Mis.
64 Dated	16.1.	1860.

Not to be folded or roughly handled

23/11/38

No. 64. Proceedings of the Madras Government, dated 16th January 1860, No. 117.

Transmit copies of correspondence relative to the 5 steam dredges supplied by the late Court of Directors.

Ordered that the Despatch from the Right Honorable the Secretary of State in the Public Works Department dated 24th November 1859 No. 38, be communicated to the Chief Engineer with reference to the letter from the Central office, dated 11th March 1859 No. 8505.

To His Excellency the Honorable the Governor in Council Fort Saint George.

India Office,
London, 24th November 1859.

No. 38.

Paragraph 1. I have to acknowledge receipt of your Excellency's letter No. 14 of the 6th June last, on the subject of "certain defects observed in setting up two of the five steam "dredges supplied by the late Court of Directors, as notified in their despatch of the 16th "February 1858 No. 6." These dredges were supplied in part compliance with a military indent of your Government, dated 9th February 1856, for twenty steam dredges, but you state that you have "no information whatever respecting the application for these dredges which "were applied for without your knowledge, and that you cannot learn who determined their "dimensions," and you therefore leave it to this department to ascertain who is responsible for the errors in their construction and to take such further measures as may seem fit.

2. On enquiry I find that on receipt of the indent for twenty dredges which was forwarded with your military letter No. 23 of the 10th February 1856, the late Court of Directors resolved to supply five only and that in deciding on the dimensions of those five they appear to have been guided by the advice of Captain Hutchinson of the Madras Artillery, the explanation afforded by the indent itself being too vague to be of any assistance. Captain Hutchinson, it should be noted, had been named by Colonel F. C. Cotton, then Deputy Chief Engineer at Madras, as the officer to be consulted in determining what machinery was most suitable to the wants of India and had, moreover, been in direct personal communication with the manufacturers subsequently employed, viz. Messrs. Forrester and Co., of Liverpool.

3. The foregoing statement will suffice to show that the requisition which you suppose to have been made without your knowledge, had really the full concurrence and direct sanction of your Government, and that any mistakes committed in the construction of the dredges are in no small degree attributable to the omission in the indent of any proper explanation of what was wanted, an omission which the late Court of Directors did their best to supply by consulting the officer who had been recommended to them as the most competent to afford the information they required.

4. The defectiveness of the indent, however, cannot excuse the manufacturers of the dredges for having supplied boats not adapted to the machinery to be placed in them, and a correspondence on the subject has taken place with Messrs. Forrester, who have been informed that their firm has been struck off the list of contractors employed by this office.

5. Copies of the correspondence are transmitted for your information.

From W. T. THORNTON, Esq.; to Messrs. GEORGE FORRESTOR and Co., Vauxhall Foundry, Liverpool, dated India Office, 7th October 1859.

I am directed by the Secretary of State for India in Council to transmit for your information, papers recently received from the Government of Madras, relative to serious defects in the steam dredging vessels which were manufactured by you for that Government in 1857-58, and which, in their present condition, appear to be nearly useless.

Sir Charles Wood is desirous of receiving any explanation on the subject which it may be in your power to afford.

I have to request that the original papers which accompany this letter may be returned with your reply.

From Messrs. GEORGE FORRESTER and Co.; to W. T. THORNTON, Esq., India House, London, dated 13th October 1859.

We have your communication of the 7th instant before us with its accompanying document relative to the five steam dredgers we manufactured for the Honorable East India Company, and in reply beg to say that after reading these documents, it is evident that the complaints there made have arisen from a misconception of the order sent us.

On referring to the copy of T. L. Moncrief, Esq.'s letter No 214 *(herewith returned) the* model dredger most suited for the district is the one made by us and *inspected before shipment* by Captain Hutchinson. *This class of dredger we brought prominently before the India House in the hope of having further orders for them.*

Subsequently an enquiry we believe emanated from India for some dredgers for waters as narrow as 6 feet and to draw only about 1 foot; this we declared to be impossible, but suggested the experiment of a few of an increased width say 7, 8 and 10 feet wide respectively, and drawing 2 feet 1·9 and 1·6 respectively, adding that less dimensions than these were quite impracticable; and that the efficiency of these dredgers increased in greater ratio than the simple increase of power.

The above proposal was purely an experimental one to approach as nearly as possible to what had been asked for from India. The result was we had an order from the India House for five dredgers of specific dimensions and draughts of water, the draughts being 2 feet, 1·9 and 1·6 respectively, *see copy annexed*, in which the experimental character of the order is clearly defined.

The complaint of Captain Rundall in his letter No. 362 (herewith returned) is evidently made in ignorance of what was ordered as he says "the draught of water should not exceed 1 foot whereas it is 2 feet 3 at the bucket end and 1 foot 10 at the boiler end." Our order was for this boat 2 feet draught of water.

The other remarks as to the use of driving belts, &c. (in place of shafting) being used with the object of economy in first construction do not fairly apply, as those modifications were made expressly for the purpose of keeping the draught of water as light as possible, while keeping as nearly as possible to the very narrow width of boat which was also first asked for.

We quite concur in Captain Rundall's suggestion that it would be better to make the vessels say 12 feet beam and 20 feet longer, or some equivalent increase in dimensions, as in this way it would be very nearly the same size as the one we made and tried at Liverpool in the presence of Captain Hutchinson, and which boat T. L. Moncrief, Esq., in his letter No. 214, speaks so highly of; this increase of dimensions would allow all the defects to be remedied, but from the requirements first placed before us was evidently considered inadmissible.

We regret very much the cause of this unpleasant correspondence, but hope the explanations given will make the matter more clear.

From J. D. DICKINSON, Esq.; to Messrs. GEORGE FORRESTER and Co., dated 4th February 1857.

The Court of Directors of the East India Company are desirous of providing as early as practicable, five iron steam dredgers for use on the canals of India with engines, boilers, machinery, &c. complete in every respect, including all suitable and customary duplicate parts and tools intending the whole for exportation to Madras in pieces properly packed and marked so as to enable the parties who would be employed in India to put them together there with the aid of drawings and written instructions to be furnished by the manufacturers here. It has been presented to the Finance and Home Committee in the course of their enquiries with the view to procuring these dredgers that your attention has been given to the subject for some time past in communication with Captain Hutchinson of the Madras establishment, and that the results which have attended some recent experiments at Liverpool with dredging machinery of your invention and manufacture have led to the belief that boats and machinery of a similar description will effect the required service at Madras. The Committee have, therefore, directed me to annex a memorandum of the dimensions, horse power and other general particulars of the five steam dredgers now required, and to request that you will inform me without delay whether you will undertake to supply the same complete in every respect to the satisfaction of the Company's officers (who shall have liberty at all times to examine the work and materials) together with full drawings and specifications as indicated in the first paragraph of this letter, and if so, that you will name your price for each dredger complete (separately) and for the whole five dredgers delivered at Liverpool on board ship or delivered freight free at Madras, and that you will also specify the earliest time within which you will engage to deliver each and the whole of the dredgers on board ship in the port of Liverpool.

Payment of the price agreed upon will be made at three months from your final completion of the contract, such price being subject to the customary official fee at 5*s.* per cent.

As these dredgers are of an experimental character the Committee expect you will be prepared to warrant them in every way fit for actual service during a period of at least 12 months from the time of their being put together and set to work in India.

Memorandum of the five Steam Dredgers referred to in the accompanying letter.

1 Steam Dredger of 4 horse power.
Boat 10 feet wide.
3 feet 6 deep.
55 feet long.
1 feet 6 draught and capable of dredging to 6 feet in depth, with iron hull buckets, engine and boiler complete.

2 Steam Dredgers, 3 horse power.
Boat 8 feet wide.
3 feet 6 deep.
50 feet long.
1 foot 9 draught and capable of dredging to 6 feet in depth, complete as above.

2 do. do. of 2 horse power.
Boat 7 feet wide.
3 feet 6 deep.
45 feet long.
2 feet draught and capable of dredging to 6 feet in depth, complete as above.

From G. CLERK, Esq., to Messrs. GEORGE FORRESTER and Co., Vauxhall Foundry, Liverpool, dated 20th October 1859.

I am directed by the Secretary of State for India in Council to acknowledge the receipt of your letter of the 13th instant, and to acquaint you in reply that the explanation afforded by it is considered to be altogether unsatisfactory.

The complaint with respect to the five steam dredges, manufactured by you for the Madras Government, is not merely that they draw too much water for the canals on which they have been placed, but that unless ballasted with 1,660 lbs. weight, they sit so unequally on the water, that it is impossible to work them, that unless so weighted, the vessels would probably be swamped by the first wave, and that the narrowness and otherwise small dimensions of the hulls, compared with the immense amount of top-weight they have to sustain, causes the vessels to roll from side to side so as to expose the buckets to a constant strain, occasioning immense wear and tear of the machinery.

Such defects as these cannot be excused by the "experimental character" of the order given for the dredges, for not only were the dimensions and draught of the dredges suggested by yourselves, but in the letter sending you the order, it is expressly stated that in consideration of the "experimental character of the dredges," you would be expected "to warrant them in every "way fit for actual service during a period of at least 12 months from the time of their being "put together and set to work in India."

Sir C. Wood has ordered your firm to be struck off the list of contractors employed by this office.

(Signed) C. WOOD.

(True Extract and Copy.)

(Signed) T. PYCROFT,
Chief Secretary.

P.W.D.

No 117.

Proceedings of the Madras Government

Under date the 16th January 1860.

Ordered that the Despatch from the Right Honorable the Secretary of State in the Public Works Department dated 24th November 1859, No 38, be communicated to the Chief Engineer with reference to the letter from the Central Office dated 11th March 1859 No 8505.

× Transmit copies of correspondence relative to the 5 Steam Dredges supplied by the late Court of Directors

10 Copies to the Chief Engr Desp 17th

Public Works 1860 Departt
Dro: of Govt 20th January.

No 117.

Dro: of the Madras Govt

Dated 16th January 1860.

From the Chief Engr & Sy 24th
Octr/60 & No 2554 in Dro:

Home Despatch on the subject of defects obs: served in setting up two of the 5 Steam dredges supplied by the late Court of Directors, Contd to Chief Engineer -

No: 64.

2

C.H. Lang/60