

MADRAS RECORD OFFICE.

Government of Madras.

Marine DEPARTMENT.

G.O. No. 89

Press
~~Mis.~~

Dated 24. 2. 1858

Not to be folded or roughly handled

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Fort Saint George, Marine Consultation, 2nd March 1858.

Read the following Extract from the Proceedings of the Chief Engineer in the Department of Public Works, Fort Saint George, under date the 18th February 1858, No. 7475.

Read the following papers.

No. 1. From Mr. D. THOMPSON, Mechanical Engineer ; to the Chief Engineer, Fort Saint George.

SIR.

I have the honor to state in answer to your letter, No. 7177, of the 2nd Instant, together with certain correspondence herewith returned from the Marine Department on the subject of a defect ascertained in the Shaft of the Steam Ship "Prince Arthur" surveyed in the Madras roads in October last by a Committee of which I was a member.

I beg to state in reply that Mr. Kennedy and myself closely inspected the Engines, spare Machinery, Screw Shaft, &c., &c., we had a lantern in company with the Engineer in charge to inspect the Screw Shaft and a new Bearing which the Engineer had placed under the Shaft beyond the coupling and Friction Block, on account of the great length of that part of the Shaft which caused it to spring or vibrate on the way out from England, and by placing the Bearing this steadied the Shaft, we examined minutely both bearing and Shaft and were of opinion that it was a very efficient job, the Shaft was examined by us about the whole of the Bearings, and we could not discern any fracture whatever and both Engines and Shaft worked well under our inspection as we went out to sea against a head wind with the ship out of trim, the Engines making (12) twelve Revolutions per minute, the Engines and Shaft working very steady. I tried all the main Bearings with my hand by which I could readily ascertain if there was any serious defect or any thing else wrong with the Engines or Shaft, the Engineer in charge stated that it had worked well and steady ever since he had placed the before mentioned Bearing.

And it appears from the correspondence that the fracture was not discovered until being told of the same by one of the Ships' company who came with her from England nor does it appear closely from the correspondence that the defect could have been ascertained until taken out of the dark tunnel into the work shop where it underwent a scrutinizing examination, as it is well known to all Engineers that there may be many faults in Iron such as sand veins, &c., which is in the making of the Iron which the closest scrutiny by the light of a lamp cannot discover, if the Engineer in charge knew of it he ought to have mentioned the circumstance as he must know well that it was almost impossible to detect it situated as we were and that he hoped to keep the situation he then held under the Honorable Company's Marine Board.

Under these circumstances I would beg to state that I do not think that either incompetence or neglect can be attributed to me or any one of the members comprising the Committee.

From Mr. R. KENNEDY, Executive Engineer, 3rd Class ; to Colonel C. E. FABER, Chief Engineer, dated 12th February 1858.

SIR,

1. I have the honor to acknowledge with thanks the receipt this day of the 1st part of our report upon the Steamer "Prince Arthur," which has been promptly furnished at my request. My wish was to obtain the whole of the report, which was given in on separate days to the Marine Board, as in that part bearing reference to the Stores, the additional journal upon the Screw Shaft spoken of in the report of Commander Stephens, President of the Committee of Survey at Bombay, is, I believe, alluded to.

2. Our report was given in detached parts on different days, and I anticipated that the whole would be embodied and submitted again complete for signature. This Statement is necessary in explanation of what I said on the subject in my letter to you of 9th Instant, but the part

**Extract from Proceedings of Chief Engineer, No. 7177, dated 4th February, received 9th, acknowledged same day and now replied to.*

you have favored me with being quite sufficient to enable me to reply to your letter,* No. 7177, dated 4th February, I proceed to do so at once.

Fort Saint George, Marine Consultation, 2nd March 1858.

3. Permit me first to express my regret in finding you were under the impression, that a charge of either gross carelessness on the one hand or absolute incompetency on the other hand, had been established against us. I humbly hope that the following explanation will entirely remove such impression.
4. The extract of our report given in the Extract Minutes of Consultation is "after," close "examination," declared her to be "perfectly sound and uninjured," the passage in our report is "It is our opinion after close examination as far as practicable in these roads and under Steam, that she is perfectly sound and uninjured, fair wear and tear during the voyage excepted." You will perceive here that this qualification materially alters the complexion of the extract. It would have been highly culpable in us to express such an opinion unqualifiedly, as there were many parts of the machinery which we could not see, such as the Screw, for instance, which was under water.
5. It would be insulting to common sense to attempt to explain how in these circumstances, such a defect as that alluded to escaped our notice, as you know it is simply an impossibility that we could have detected it, seeing that the Engines were in motion, and working to their full power, the vessel going nine knots an hour and thereby proving as it were the soundness of her Machinery.
6. Had we however formed our judgement of the state of the Engines merely by looking at them, working, we would not have been justified in reporting particularly of them, as is done in the Para: immediately preceeding that from which the above extract is taken. Our opinion therein expressed was formed after careful examination of the Engines while at rest, and I do not shrink from my full share of responsibility incurred thereby. The very part of the Shaft stated to be fractured was carefully looked at, although certainly without a suspicion that any defect existed, but my attention was drawn to it on finding that an additional bearing had been put in since the Vessel left England. I went down the Tunnel with the Chief Engineer and examined the Shaft in company with Mr. Thompson. We examined the journal more particularly and enquired why it had been done. The Chief Engineer's reason was a simple yet to us a good and sufficient one, namely, that from the length of Shaft between its two end bearings, a vibration was caused while it worked and this bearing was added to prevent it. This, I need hardly say, is a very usual occurrence and a common expedient in the working of Geering. Struck however with the apparent difficulty of turning a large journal in such a confined position I enquired how he had done it and learned that the Engine makers, doubtful as to whether the Shaft would not require it, had taken the precaution to have the journal turned in their Workshops so that the bearing might be put in if found necessary. The whole of this explanation was satisfactory enough to disarm suspicion.
7. In case this explanation may have to be submitted to those who are not professionally acquainted with such matters, I beg you will allow me to say what yourself are well aware of that a fracture upon a malleable Iron Shaft, can be hammered up in a few minutes in such a way as to deceive the most experienced eye, a few blows being sufficient to close it up and give the appearance of perfect solidity, and as the gentlemen who report upon it in Bombay are of opinion that the Chief Engineer knew of the defect there was nothing to prevent him if so inclined obliterating any clue to it.
8. That it was not easily discovered, may be gathered from the letter of Commodore Wellesley, who shows that although the vessel had been placed in Dock, (and overhauled it may be presumed) the fracture was not discovered by the Engineers, but was brought to notice by the information of a man who had long been in the secret. It had also to be taken out of the vessel to ascertain correctly the nature of the fracture.
9. In judging of the manner in which we performed our duty, I respectfully request this may be taken into consideration. It is no uncommon thing for a fracture to exist in a Shaft for years and never be discovered until it breaks altogether.

Fort Saint George, Marine Consultation, 2nd March 1858.

10. I would also respectfully draw your attention to the fact that none of the Bombay reports impute a dereliction of duty in the non-discovery of the defect. And not even surprise is expressed at is escaping our notice.

In submitting for the information of Government, with reference to Extract Minutes Consultation, No. 37, dated 20th Ultimo, Marine Department, the foregoing letters from Messrs. Kennedy and Thompson, relating to the defect in the Shaft of the Screw Steamer "Prince Arthur," reported by the Committee of Survey at Bombay, the Chief Engineer resolves to express his opinion, that the Members of the Committee at Madras are entirely free from blame, in not having noticed the fracture, under the circumstances in which their examination was made, as set forth in the replies now forwarded.

(A true Extract.)

(Signed) C. E. FABER, Colonel,
Chief Engineer.

No. 2. ORDER THEREON, No. 89; dated 24th February 1858.

It is observed that the Marine Board, and not the Chief Engineer, were called upon for explanation respecting the defect discovered in the Screw Shaft of the Steamer "Prince Arthur;" and that Messrs. Kennedy and Thompson were not the only Officers who were on the Committee which surveyed that Vessel. The Government resolve to forward the foregoing communication and its enclosures to the Marine Board, and to request that they will submit the explanation called for by the order of the 20th Ultimo, No. 37.

(Signed) T. PYCROFT,
Chief Secretary.

Exd. J. A. Wilson.

Marine Department

N^o 89

Extract from the Minutes of Consultation

Under date 24th February 1858.

Read the following

Extract from the Proceedings
of the Chief Engineer in the
Department of Public Works.(Dated 18th February 1858 N^o 74/5)

It is observed that
the Marine Board, and
not the Chief Engineer, were
called upon for explanation
respecting the defect discovered
in the screw shaft of the
Steamer "Prince Arthur"; and
that Mess^{rs} Kennedy and
Thomkinson were not the
only Officers who were on the
Committee which surveyed
that Vessel. The Government
resolve

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resolve to forward the foregoing
communication and its en-
closures to the Marine Board,
and to request that they will
submit the explanation called
for by the Order of the 20th
Ultimo. N^o 37.

[Signature]

To the Marine Board
Chief Engineer } Disp^d 2^d

Entered in West 2/1/58

Refilled to 9/27th Oct 1858
280 of 1858

July 1st to Aug. 2nd 1858
Marine 1858 at 1858

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Abraham Lincoln: of 1858

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