Marine (1899) Department.

G.C., No. 623 Marine

DATED 7th July 1899.

M.H
8/9 mar 99

[Despatch Abstract.]

Dredger "Wenlock".

Accepting, with remarks, the
sick attendant on the return to Calcutta
of the _____ and the cost of the requisite
repairs which will be met from the
Eastern Groups Port Fund.

L

[M.—6. 250—27-4-99.]

Indexed. 18/7

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
Gl.	253	Mar:	14.3.99				

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
"	869	"	18.9.99				

Marine DEPARTMENT.

Wright

Marine DEPARTMENT.

READ the following:—

Letter from the Chairman, Harbour Trust Board, Madras,
No. 54/6 dated 15th June 1899.

do do No. 54/12 dated 30th June 1899.

Circulated to

ORDER. No. 623 Mar of 7-7-99.

Under the circumstances explained, His Excellency the Governor in Council accepts the risk attendant on the return to Calcutta of the Dredger "Wenlock", and the cost of the requisite repairs which will be met from the Eastern Group Port Fund, a reappropriation to meet which will be proposed by the Presidency Port officer on the amount being known.

2. The Presidency Port officer will take over the vessel at Madras and arrange for her navigation to and from Calcutta.

R.S.

J. V. H.

To
The Presidency Port officer
" Chairman, Harbour Trust Bd
" Accountant General.

14/7/99

[P. W. 42-A. 1,000—2-3-99.]

Wright

Marine DEPARTMENT.

READ the following :—

Letter from the Chairman, Harbour Trust Board, Madras,
No. 54/6 dated 15th June 1899.
——— do ——— No. 54/12, dated 30th June 1899.
Repairs to Dredger "Wenlock"

Circulated to

~~H. E. the Governor~~

FOR ORDERS

Flag Q
Flag R
Flag S.

It was decided in G.O. 52 Financial dated 20th January 1897 that the dredger "Wenlock" should be transferred to the Harbour Trust Board at a valuation of Rs 1,00,400, and in G.O. 228 Marine, dated 12th March 1897 that the vessel should be put into a proper state of repair before she was handed over.

2. The cost of the requisite repairs was estimated at Rs 5,284, and the amount was sanctioned in G.O. 549 Marine dated 28th June 1897; the work being carried out by the Government Dockyard at Calcutta.

3. The dredger has now been returned by the Dockyard, in what the Harbour Trust Board consider a defective condition. The hopper doors are not tight and will not hold

tho

[P. W. 43.
1,000—28-2-19.]

R 6/7.

the sand that is pumped into the well. Every endeavour has been made to rectify this defect at Madras, but without success. The dredger will, therefore, it is said, have to be returned to Calcutta to remedy this defect. The cost of doing this as well as the risk attendant thereon, the Chairman, Harbour Trust Board, contends, should be borne by Government. If the liability is accepted, the charge should, it is thought, be debited to the Eastern Group Port Fund, whose debt to the Madras Harbour Trust Board was liquidated in part by the transfer of the dredger. It is represented that the vessel is now useless as a Sand dredger.

P.S. I have ascertained that it is impossible to repair the Dredger at Madras

J. Bell
J.7.99

I do seem necessary under para 1 of G.O. 220 Mer. of 12.3.97 Flg R.

The liability should be accepted by Govt. and the debited accordingly.

F.A.
6.7.99

Marine (1898) Department.

CURRENT No. 887

Order

From
The Chairman,
Harbour Trust Board,
Madras.

No. 57/12

Dated 30-6-99

Despatched 1-7-99

Received 3-7-99.

Enclosures ~~One~~ Plan 2 } 3 total
other 1 }

Spare copies

SUBJECT.

Dredger "Wenlock"

Submitting, for information or Government, copy of letter from the Harbour Board's Engineer re Hopper doors of the—

Mr. Brandreth - vide
letter re wears already
drafted. A.S.
3/7/99

BACK PAPERS.

G. O.	No.	Department.	Date.
	P. 305 Sg 20-6-1899		
	W.P. 292 of 99 Thapen		
	C.O. 2539 4-8-99 Thapen.		

FURTHER PAPERS.

G. O.	No.	Department.	Date.

No.274

From,

The Engineer,

Harbour Trust Board,

M A D R A S.

To,

The Chairman,

Harbour Trust Board,

M A D R A S.

Madras 30th June 1899.

Sir,

In reply to your endorsement No.57/9 E,dated 22nd instant forwarding letter No.305,from the Secretary to Government,asking if the hopper doors of the dredger "Wenlock" cannot be removed for repairs,at Madras;I have the honour to report that I have now had a further examination of the hinges made,and report that the vessel has 16 half doors each 10 feet long× 3'.6" wide× 5" thick.Eight of these half doors are fixed to the well plates in the centre of the vessel,by means of 2 long bolts to each half door,passing through angle irons.

2. These angle irons are much worn and appear bent and require straightening.Of these 8 inner doors,the bolts of only four doors can be removed by Divers.

3. The outer eight half doors,are hung by hinges rivetted to the vessel,and therefore,as they are not arranged with draw bolts,as the other eight are,divers cannot move them.

4. I will try to remove one of the inner doors if you wish it to be done,and then see what is really wrong with it,but it will be a risky thing to do,as in case the divers are unable to replace it,I do not think the vessel could go to Calcutta without all her doors in position.

5. It is also certain,that if the inner doors are removed, and successfully replaced,the outer ones cannot be and as all the doors are leaking,all I can do at Madras will not put the

vessel

vessel in good order,or make the doors sand tight.

I have &c,

Signed A.Lee Pogson,

Engineer,Harbour Trust Board.

HARBOUR TRUST
MADRAS-1.JUL.99
SECRETARY'S OFFICE

(True Copy)

Secretary,

Harbour Trust Board.

Re.1
Jan.887/99.

Harbour Trust Office.

MADRAS, 30th June 1899.

No. 57/12

FROM

Herbert Bradley Esq. I.C.S.,

CHAIRMAN, HARBOUR TRUST BOARD,

MADRAS.

To

W. B. deWinton Esq.,

SECRETARY TO GOVERNMENT,

Marine Department.

Sir,

I have the honor to acknowledge the receipt of your unofficial memo dated 20th June No.305 E and to forward for your information copy of letter No.274 of this date from the Board's Engineer in reference to the hopper doors of the dredger "Wenlock."

It appears that it is absolutely necessary for the vessel to be docked for the repairs to be executed, and this I understand can only be done at Calcutta.

I have the honour to be,

Sir,

Your Obedient Servant,

Secy.

Chairman,

Harbour Trust Board.

Marine (1898) Department

CURRENT No. 791

urgent

order

Shutter doors allowed
since completed removed,
vide para 16 of Harbour
Engineer's letter. - For the
Nier defects have effected,
been made good at Madras,
cannot the doors be removed
by Divers & new ones be
made by Massey & Co. &
fixed by Divers ?
Ltr to Chairman 4-0

19.6.99

From

The Chairman,
Harbour Trust Board,
Madras.

No. 57/6.

Dated 15.6.99

Despatched 16——

Received

Enclosures four

Spare copies

——

SUBJECT.

Dredger "Wenlock"

Bringing to notice the defects found in on her arrival at Madras and requesting early steps be taken for repairs to her hull.

Await receipt of reply from the Chairman, H.T.B. re the N.O. reference made by Dy.

S.A.

W 20.6.99.

BACK PAPERS.

G. O.	No.	Department.	Date.
P.O.	253	Mar'g	14-3-99
"	154	Mar'g	17-2-99

FURTHER PAPERS.

G. O.	No.	Department.	Date.

List of defects found in the work carried out by the R.I.M.Dockyard at Calcut

Conversion of Dredger reported upon - March I897.

Machinery &c received from England and despatch to Calcutta 8th September I898.

Estimate under which the work was carried out.	No.of item	Defect as turned out by the Calcutta Dock-yard authorities	Date & results of trial of machinery &c in the Madras Harbour: Date	Particulars
Estimate A to be carried out at cost of Government for putting the vessel in sea going order,and repairing same as a Bucket Dredger;Hoppers,Doors,Winches, Engines &c. Rs 5287-0-0	I.	Condenser tubes were leaking on the voyage.	IIth Mch.99.	2 tubes leaking, Density of boiler I2 oz?
	2.	Hopper doors,not thoroughly repaired, found knocking,and not sand tight.	22nd Mch.99.	The hoppers were filled with about 400 tons of sand, and fully 25% of the dredgings was lost through the leaky doors.On steaming outside the Harbour,the vessel listed to port through loss of dredgings.The remaining sand,was then released,when the Port forward hopper,centre beam was found to be drifting seawards. Dredging therefore impossible till the doors are repaired and made sand tight
Do	3.	The vessel was sent to sea without fire, or other deck hose onboard.	22nd Mch.99.	Hose is required for washing decks, removing sand and flashing the pump; and none onboard in case of fire.
Do (Repairs also omitted to cabin lamps,2 clocks and minor parts of engines,not reported,but since repaired)	4.	The fresh water tank has been removed & no substitute provided,as arranged for in letter No.2833 dated 6th December I898 from the Dy. Director R.I.M.consequently there was no fresh water supply for the boiler on voyage,or at Madras (see item No.I)		

BACK PAPERS.

G. O.	No.	Department.	Date.
f.o.	253	Mar'g	14-3-99
"	154	Mar'g	7-2-99

FURTHER PAPERS.

G. O.	No.	Department.	Date.

converting the Bucket Dredger "Wenlock" into a Suction Pump Dredger

Delivery of Dredger at Madras 7th March 1899.

Delay at Madras due to making good defe in work carried out by the Calcutta Dock yard- completed- April 1899.

Date and how rectified at Madras

Cost of work carried out at Madras to be deducted from the bills.

Date	Repairs & alterations	Labour	Materials	Total
18th Mch.99.	Condenser opened out cleaned, and 2 tubes plugged till new tubes are obtained.	31- 8- 6	" - " -"	31 - 8 - 6
25th Mch.99	Tightened up the hopper chains and tried to replace the hopper beam, but found the foot plate missing, due to bad or incomplete work at the Dockyard. These repairs should be done in Dock and unless Divers can remove the doors for alterations, the Dredger must return to Dry Dock-Work in hand see report para 5.	157- 8- "	44- "- "	201- 8- "
23rd Mch.99.	318 feet of canvas delivery and rubber section hose has been fitted onboard at Madras, & pump washed out of sand, before starting &c.	2- 8- "	195- 8- "	198 - " - "
Apl.99.	One iron fresh water tank will be placed in the engine room in lieu of the tank removed from the vessel at Calcutta (see item No.5)	30- "- "	95- "- "	125- "- "
		"- "- "	2- "- "	2 - " - "
	Total Rupees	221- 8- 6	336 - 8 - "	558 - " - 6

List of defects found in the work carried out by the R.I.M.Dockyard at Calcutta in

Conversion of Dredger reported upon - March I897.

Machinery &c received from England and despatched to Calcutta 8th September I898.

Estimate under which the work was carried out.	No.of item	Defect as turned out by the Calcutta Dockyard authorities	Date & results of trial of machinery &c in the Madras Harbour	
			Date	Particulars
Estimate A to be carried out at cost of Government for putting the vessel in sea going order, and repairing same as a Bucket Dredger; Hoppers, Doors, Winches, Engines &c. Rs 5287-0-0	I.	Condenser tubes were leaking on the voyage.	IIth Mch!99.	2 tubes leaking, Density of boiler I2 oz?
	2.	Hopper doors, not thoroughly repaired, found knocking, and not sand tight.	22nd Mch.99.	The hoppers were filled with about 400 tons of sand, and fully 25% of the dredgings was lost through the leaky doors. On steaming outside the Harbour, the vessel listed to port through loss of dredgings. The remaining sand, was then released, when the Port forward hopper, centre beam was found to be drifting seawards. Dredging therefore impossible till the doors are repaired and made sand tight
Do	3.	The vessel was sent to sea without fire, or other deck hose onboard.	22nd Mch!99.	Hose is required for washing decks, removing sand and flashing the pump; and none onboard in case of fire.
Do (Repairs also omitted to cabin lamps, 2 clocks and minor parts of engines, not reported, but since repaired)	4.	The fresh water tank has been removed & no substitute provided, as arranged for in letter No.2833 dated 6th December I898 from the Dy. Director R.I.M. consequently there was no fresh water supply for the boiler on voyage, or at Madras (see item No.I)		
Estimate B. Rs I02 for removing the machinery, to be deducted from the amount recovered by sale of the machinery iron &c removed from the vessel. This amount is to go to the credit of the new work carried out, under Estimate C. (The amount realised by auction, not yet communicated)	5.	Value of water tank plates removed and omitted from sale list, should therefore be credited in the bills for work done.		
	6.	The hoisting gear telegraphs have been removed and are omitted in the sale list. They are required to be fixed onboard for communication between the deck and the pump room (see item I6)		
Estimate C Cost of converting the Dredger Wenlock into a sucton pump dredger and placing onboard the pump in machinery received from England on the 8th of September I898. Estimate Rs I0,000	7.	The pump & engine only delivered half the proper discharge, due to a leaking suction pipe, Exhaust pipe & want of packing in the glands &c.	IIth Mch.99.	The pump & engine was run for I5 minutes when the bearings ran hot. The exhaust pipe was found to be leaking in 20 places and 27 rivets were also leaking. The suction pipe & pump could not be exhausted with the ejector, due to insufficient packing in the glands. A letter vacuum than I0" was not expected by the Dockyard authorities (see their letter No.9I7 dated I7th March I89
Do	8.	The Hydraulic cylinder feed pipes were leaking badly at I0 joints & had not been fitted with the necessary joints at the required lengths for dredging at a depth of 25 feet.	IIth Mch.99.	The Hydraulic piping leaked so badly as to render the apparatus useless whe working sand, & dredging at a depth of 25 feet was impossible until the pipe had been cut and jointed to the required lengths.
Do	9.	The forward mounted pulley for dredging at a depth of 25 feet was erroneously fixed 5 feet too far aft, & not as shown on the Makers Drawings.	I3th Mch.99	Dredging at a depth of 25 feet was therefore not possible, until the pulley was moved to the intended position.

Date and how rectified at Madras		Cost of work carried out a deducted from the bills.		
Date	Repairs & alterations	Labour	Materi	
	Note the missing tank will be replaced by a suitable iron tank at Madras; vide item 4 above.			
	Telegraphs to be fixed on receipt from Calcutta.	74- I- 3	" - " - "	74- I- 3
	Total Rupees	74- I- 3	" - " - "	74- I- 3
I8th Mch.99.	The pump & engine bearings were eased. The exhaust pipe leaks were cleaned scraped & caulked in 20 places along the seams, and 27 rivets also. The suction pipe glands were cleaned & properly packed when the ejector filled the pump immediately. A vacuum of 22" was also obtained, which the Dockyard authorities have stated was not obtainable without larger air pumps! These defects were due to inferior work at Calcutta, which when rectified here; good results were obtained.	I26- 2- "	97- 8- 5	223-I0- 5
I4th Mch.99	Wrot iron flanges were fitted to the hydraulic piping which was then made water tight. The flanges were necessary to allow of the pump being opened, and also for dredging at a depth of 25 feet as shown on the drawings supplied to the Dockyard authorities by the makers.	I36- 4- 7	I8- 9- I0	I54-I4- 5
I9th Mch.99.	The mounted pulley was moved to the position shown on drawings, & rebolted to the deck, in which position it answers the purpose for which it was supplied.	I26- 2- "	2 -I2- 9	I28-I4- 9

Estimate under which the work was carried out	No.of item.	Defect as turned out by the Calcutta Dockyard authorities.	Date & results of trial of machinery &c in the Madras Harbour.	
			Date	Particulars
Do	I0.	The 2 suction pipe vacuum guages were fixed in the wrong position, although the correct position was clearly defined in Engineer's reply letter No.8I3 dated 2Ist October I898.	I2th Mch.99.	The vacuum guages were therefore useless, due to their wrong position on the pump consequently no vacuum was indicated.
Do	II.	The delivery pipes for directing the dredgings into the hoppers have been placed too high above the deck, due to a specially, inclined length of the delivery pipe being fixed upside down. A test trial of the machinery at Calcutta would have brought the error to notice.	IIth Mch.99.	As soon as the pumps were tried with water, it was seen that more water was lost over the side of the vessel than was delivered into the hoppers. The guard boards supplied by the Dockyard to rectify this were useless.

Date and how

Estimate under which the work was carried out.	No. of item.	Defect as turned out by the Calcutta Dock-yard authorities	Date & results of trial of machinery &c in the Madras Harbour	
			Date	Particulars
Do	I2.	The steam suction pipe hoisting winch had not been moved, & was not suited to forward or aft dredging with the block supplied.	24th Mch.	A working drawing was supplied by the makers of the Pumping machinery, and the dockyard authorities were to be guided by it, but the steam suction pipe hoisting winch was nevertheless left in the original position, & not moved as recommended and shown on the drawings. As fitted an unsuitable small snatch block has been supplied, through which no wire rope could be worked safely for any length of time; and in dredging forward the wire rope fouled the forward steam winch and prevented the Driver from working it.
Do	I3.	"Specification" overflow sluices to be increased equal to the discharge of delivery pipes.	23rd Mch.	Four sluices have been provided, two with doors, & two without; at the trial at Madras after pumping for half an hour the starboard hoppers were flooded the overflow being insufficient, although the hopper doors were assisting the overflow sluices, by their heavy leak of sand & water through the bottom of the vessel. The vessel listed, when the pump had to be stopped to allow the stored up water to escape.

Estimate A.Rs 558-"-6

do B. " 74-I-3

do C. "I373-5-7

Total Rupees 2005-7-4

Items of machinery supplied from England and also belonging to the Dred-

belonging to the Harbour Trust Board and now

Item No.	Items per Invoice from the India Office, or removed from "Bucket" Dredger.	Defect
I4.	2 depth Indicators supplied with mounted pulleys, for indiacting the depth of dredging.	Not fixed in position, or returned to Madras with the Dredger.
I5.	One wash-out pipe for centrifugal pump with valve for ships' side complete.	This pipe and valve is missing, although it was supplied from England, and should have been fixed while the vessel was in dock.
I6.	The Bucket ladder Telegraph has been removed by the Dockyard authorities, and has not been refixed between the deck and pump room. Neither has its removal been shown in the "list of gear removed from the "Wenlock", and proposed for sale, or returned with the Dredger.	There is now no means of communication provided between the deck and the pump room The removed and missing telegraph was intended for this purpose.

ger,not fixed in position,or returned with the Dredger from Calcutta,but required for use at Madras.

For what purpose required.
Required for dredging,& included in the original indent,as supplied by the makers with the pumping machinery;Vide Invoice & bi-monthly Return from the India Office dated 31st March 1898. This item must be returned without delay. This pipe and valve is now required,& should be despatched to Madras;it already being the property of the Board.
Required to be fixed at Madras,and is the property of the Board,having formed a part of the original dredging plant.This apparatus should be returned to Madras by the Dockyard without delay.

Signed A.Lee Pogson,
Engineer,Harbour Trust Board.
6—4—99

(True Copy)

Secretary,
Harbour Trust Board.

Date and how rectified at Madras.	Cost of work carried out at Madras to be deducted from the bills.		
Date Repairs & alterations	Labour	Materials	Total.
6th Apl.99. The well of the vessel has been bridged by suitable iron plating,& the winch placed thereon in the position shown on the (blue print) drawing, supplied to the Dockyard authorities,which position now receives all wire ropes direct on to the drum of the winch,& also clears the forward winch,dispensing with the use of an unsuitable small pulley. This mistake or unnecessary deviation from the working drawings supplied,& want of a proper trial at Calcutta of all the machinery,in the various working positions,has necessitated much labour and alterations to steam and exhaust pipes & other work in refixing the winch. The cost of all these alterations should be met from the original estimate.	228- 8- 3	I86- 8- 8	4I5- "-II
Apl. Four additional overflows will be made in the well of the vessel and fitted with doors in addition to making and fitting the 2 doors omitted at Calcutta.	40- "- "	20- "- "	60- "- "
Add cost or fixing Indicators (item I4)	I0- 6- "	5- 3- 9	I5- 9- 9
Total Rupees	879- 4-I0	494- "- 9	I,373- 5- 7

55R —0:6
74—1—2
2005.7.4

Date and how rectified at Madras

Cost of work carried out at Madras to be deducted from the bills.

Date.	Repairs & alterations	Labour	Materials	Total.
25th Mch.99.	One of the two guages was moved and fixed in the proper position on the suction of the pump, the 2nd guage was left in the position fixed by the Dockyard to show that it was the wrong one; with the result that the removed guage immediately showed a vacuum of I5" when filling the pump against nil on the guage fixed by the Dockyard. This error might have resulted in the complete break down of the dredger.	3I- 8- 6	"- "- "	3I- 8- 6
26th Mch.99.	The pump was started & delivered sand, to a depth of 3 to 6" deep all over the deck of the vessel instead of into the hoppers, and then overflowed into the sea. A large portion of the sand which did not reach the hoppers, was lost through the openings in the hopper doors (see item 2 above). There were two alterations to overcome this error. I. To lower the delivery piping &c at a high cost and delay to the work. 2. To construct timber shoots to direct the ~~anchorage~~ discharge into the hoppers. Eight shoots have therefore been made, & the sand now enters the hoppers, but the hopper doors have to be made sand & mud tight before the vessel will be in working order, or in the condition in which the dockyard authorities should have delivered the vessel.	I80 -5- 6	I63- 5- 4.	343- I0-I0
		600- 6- 7	282- 4- 4	882-I0-II

No. 1403

R. I. M. DOCKYARD,

Calcutta the 3rd May 1899.

To,

The Secretary,

Harbour Trust Board,

M a d r a s.

Sir,

With reference to your letter No.57/A dated 20th April 1899 forwarding remarks by the Engineer Harbour Trust Board on certain defects found in the Dredger "Wenlock", I have the honour to forward herewith a report by the Constructor of this yard, and to remark that the work of converting the Dredger was an entirely new experience for the Dockyard and that the staff have no special experience of fitting Hydraulic gear and due allowance must be made accordingly.

I have &c,

Signed Austin Gwyn,

Captain R. I. M.

Dy: Director, R.I. Marine

The following remarks are submitted on the defects found in "Wenlock".

1. The Condenser was thoroughly repaired in 1897 and then tested as usual. When the Engines were tried in February 1899 there were no indications of any leaky tubes. In sea going ships it often occurs that a condenser tube has to be plugged, this with the cleaning of condenser should have been done by the Chief Engineer of the Dredger.-

2. The Hopper Doors were thoroughly repaired in 1897, when last docked, they were examined and no defects were found. After being unlocked the Hopper Doors were dropped and resecured in place to see that they worked all right. I can offer no explanation of the defect referred to, one thing the Hoppers held mud when "Wenlock" was here which had to be cleared out by hand

labour

labour when last in dock.-

5. No suction or delivery hose was asked for, we did not know it was wanted, being treated as stoves it is usual for Departments to intent for these articles separately.-

4. As the tanks were originally intended to be used as Ballast tanks and this idea was abandoned in favour of cast iron Ballast the fact that one of these tanks was for fresh water was lost sight of . This oversight is regretted.-

5. These old plates although not mentioned in the list were returned to the Marine store keeper and sold, the value will be credited to Madras by the Examiner of Marine Accounts in due course.-

6. These telegraphs with their gear were taken out of the vessel in August last and placed in the pattern shot. An accumulation of patterns took place around them and they were lost sight of. They are being packed up and will be forwarded very soon.-

7. The Engine and pump was run by us for many hours without a sign of a hot bearing. No leaks were seen in the suction pipes which were supplied from England and only jointed by us. The packing in the glands must have shrunk due to dry weather on the way down, it would have been an easy matter for the Engineer to put an extra turn of packing in, which in view jobs like this is often necessary . No trouble was experienced with the ejector which was tried on several occasions and to the satisfaction of the Engineer. The want of a good vacuum was thought to be due to the great length of exhaust pipe, no suspicion of a leaky pipe being entertained. It was assumed that the main idea in leading the exhaust to the condenser was to some water and for this purpose the vacuum obtained was sufficient.

8. The first time these hydraulic pipes were tried there were two leaky joints these were rectified to the satisfaction of the Engineer as on the second trial with the pump at full speed no leaks of any kind were visible. It is considered these leaks of above water must have been due to the rubber having suffered from the heat. These pipes &c. were fitted for the full length and as marked, the couplings &c for the 25ft: depth were handed over to the Engineer who it was considered would have no difficulty in carrying out the works as it was presumed he would have to do the necessary works when changing from 40 ft: to 25 feet and vice versa in actual dredging.-

9. The mounted pulley was fixed by the Inspector of machinery who personally marked the position. He appears to have made a mistake, it is not possible now to ask him if such was the case or if it was intentional and if so the reason, he having gone on Furlough.-

10. I understand that the pipes were fitted in the position by the Inspector of machinery asthat officer considered the cock there was for that purpose. He should undoubtedly have put them where advised by the Engineer. The correspondence on this point took place whilst I was on leave and this is the first time my attention has been drawn to it.-

11. When fitting the delivery pipes it was considered they were very high but as the height agreed practically with the sketch sent for guidance, it was thought to be correct, The pipes were fitted according to the lettering put on them by the makers who it was thought had considered the point.-

12. Taking into consideration the clause of the specification dealing with this winch the sketch which accompanied it and the sketch referred to together with the stays for the jib crane, it was thought that the original position of the winch was the better one. It was intended to fit a second position for the snatch blocks for the bow position but it is regretted that this was overlooked and forgotten.-

13. I cannot explain why the two were not enlarged as the other two were, I understand there were, and saw only two overflow sluices. It was not understood that 4 additional were required.-

14. I have been carefully through the packing account and can find no mention of 2 depth indicators and none were supplied A chain for measuring depth was received and this was handed over to the Engineer in charge.-

15. The sluice valve and pipe was fitted as a sea suction to the hydraulic donkey for which none was supplied. It was not understood that it was intended as a wash out for the pump.-

16. Already explained under item 6 With reference to the letter accompanying

accompanying the Report I would remark that the Engineer to the Board is under a misapprehension concerning our estimates and the charges made, the latter represent the actual cost of the work without any extraneous charges and are entirely apart from the estimated cost. The estimate when forwarded bearing the following remarks."This estimate is approximate only and the actual cost may vary from it owing to unforeseen fluctuation in actual charges&c." work not done is therefore not charged for.-

The work of conversion done to the "Wenlock" was a very difficult job in this country with the workmen at our command and caused a lot of anxiety and worry and it is extremely doubtful whether it would have been undertaken by any private firm of Engineers except at an almost prohibitive cost, my reason for saying this is caused by a remark of this nature which fell from a member of one of the Leading Engineer Firms in this city, who saw the Dredger the day before she left Calcutta.- Of this fact the Engineer to the Madras Harbour Trust must be well aware. We much regret the errors and mistakes into which we have fallen, but apparently no credit is given for what has been done properly.-

A trial was held twice in the presence of the Engineer of the "Wenlock" who expressed himself thoroughly satisfied , the pump and other gear being underway at least 5 hours on each occasion , leaky joints fount on the first occasion were rectified and were satisfactory on the second occasion and I have afforded the only explanation I can offer.-

The cost of the work is very heavy and it could all have been done here for less than one half the cost at Madras.

Signed T.Avery,

Constructor,

27-4-99.

No.I42

From,

The Engineer,

Harbour Trust Board,

M A D R A S.

To,

The Chairman,

Harbour Trust Board,

M A D R A S.

Madras 23rd May 1899.

Sir,

I have the honour to acknowledge the receipt of letter No.I403 from the Royal Indian Marine Dockyard,Calcutta,remarking upon the reported defects in the Dredger "Wenlock",forwarded to me for remarks under your endorsement No. 57/4 E dated IIth instant.

Enclosure one,and one plank

2. Most of the defects pointed out are admitted as mistakes or oversights and therefore call for no further remarks.

Para 3

3. The old hose was worn out and should have been replaced for fire and washing decks &c at the cost of Government in putting the vessel in sea going order.

Para 5

4. The value of the plates sold,and not included in the sale list,will be looked for as a further credit to this work.

Para 6

5. The telegraphs lost sight of,have now been received.

Para 7

6. From enquiries from the Engineer and crew,I am informed that the bearings ran hot at Calcutta.The Engineer saw the pump filled from a hose and not with the ejector, and since the vacuum gauges were fixed in the wrong position (Vide para IO) and the pump filled by a hose it could not be known whether the ejector was in order or not.The exhaust pipe should have been tested,as the exhaust of a compound engine is not only led to the condenser to save water.

Para 8

7. The leaky joints in the Hydraulic pipes were in the iron piping in the pump room and along the suction pipe,as well as in the rubber piping.The hydraulic piping should also have been

cut

cut and jointed at the proper lengths for dredging at 25 feet and tried in that position,but this was not done,and the further mistake in the position of the mounted pulley,necessi - tated new joints being made for the altered positions.

8. The lettering on the piping differs from the makers drawings, and appears to have been cut on the piping at Calcutta in the present position, as it is the same type,as is marked on the I2" sluices,which did ~~did~~ not come from the makers. Para II

9. The packing account is not in this office,but the Bi - monthly Return (copy herewith) mentions the depth indicators. Indicators answering the purpose have now been made and fixed on board instead. Para I4

I0. The suggestion that the Dockyard should meet the cost of alterations at Madras was not made with a view to binding the authorities to their estimates,but since they did the work,and charged for the work done,the extra cost of rectifying mistakes,is not a charge which the Harbour Board can be called upon to meet. Para I6

II. Had there been a Dock at Madras,the work could have been done here,and it was suggested that the dredger might be returned to Madras for that purpose after being docked,and it must be remarked that the fitting together and placing in position of the engine pump and piping &c supplied from England,required no special experience in Hydraulic gear.I am sure,with the assistance of Messrs Massey & Co for the heavier work,not only would it have been done quicker,but there would have been no trouble with it,and I cannot understand how the mistakes have been made.

I2. It would appear that the work was hurriedly completed at the last,as the pump delivery bend was found to contain two stray bolts,and the delivery pipe on deck had been closed with a Capstan bar left in it,and the air compartments to the vessel still contain the staging of planks,put up for painting purposes.

I3. The sluice to this chamber was rusted up and had not been seen to.

I4. It was a great disappointment to me to find that the vessel was not in working order on arrival at Madras.

I5. The pumping machinery &c has since been put in working order and gives most satisfactory results,but I regret to report that nothing more can be done to the hopper doors until the vessel is docked,and that until the hopper doors are properly repaired,the "Wenlock" is of little use,as a sand pump dredger.

Para 2

I6. States that the hopper doors were repaired in I897 and held mud.A small quantity of mud would remain on the flat portions of the doors,but it is shown by the ship's papers that the doors were not sand tight at Pamban,before the vessel was docked at Calcutta in April I897,and an entry is made in the log, that on the 9th March I897 at Pamban,the centre beam of the Port hopper carried away - this very beam was renewed at Calcutta but it was omitted to be fixed and consequently dropped out again at Madras.

I7. The ship's log notes the repairs at Calcutta,but there is no reference to repairs to the doors.

I8. From the piece of the doors which has broken away (sample herewith) it appears the timber has been attacked by the Jeredo,and if this took place before I897,the doors should have been renewed at the cost of Government,but if they were sound then,destruction must have commenced when the "Wenlock" was allowed to rest on the mud bank at Calcutta.Every attempt has been made to plug the large holes and wedge up the openings,but the doors appear to be rotten,and the plugs and nails draw out again.

I9. If the doors were in good order,the pump should flood the hoppers in a few minutes and overflow,but as fast as the water can be pumped in,it escapes again through the doors and carries the sand with it,but after delivering sand and water into the hoppers for two or three hours,the sand chokes up the leaks and the hoppers then fill rapidly,but when the pump is stopped leakage of sand continues,and when the vessel is moved a large portion of the dredgings is lost.

20. Another point requiring attention is the serious manner in which the door winches have bulged the deck,apparently for the want of strengthening,after the removal of the original hopper coamings,which supported the deck.

21. The vessel must therefore return to Calcutta to be docked for these repairs under the original estimate A,and as she has not been docked since May 1897,or for more than 2 years, the vessel should be docked as soon as she can safely proceed to Calcutta,about the end of July,and return in August for sand dredging.Meanwhile the "Wenlock" is dredging up coal from Berth No.5 and deepening it,and also putting down the new mooring chains,but should the mooring work and coal dredging be stopped by vessels occupying the berths, ~~and~~ Sand will be dredged but it is waste of fuel and labour to remove only 400 tons of spoil,when 1000 to 1200 tons of sand could be removed for the same cost;if the doors were in good order;besides the fact that the vessel deposits part of her load again in other parts of the Harbour,each time she proceeds to sea,instead of carrying her full load with her.

I have &c,

Signed A.Lee Pogson,

Engineer,Harbour Trust Board.

(True Copies)

HARBOUR TRUST
MADRAS 15 JUN 99
SECRETARY'S OFFICE

C Smart

Secretary,

Harbour Trust Board.

EXTRACT of Proceedings of the TRUSTEES OF THE HARBOUR OF MADRAS, at a Meeting held at the Offices of the Board on Friday **the** 9th **day of** June **189**9.

4. Read letter No.1403 dated 3rd May 1899, from the Dy. Director, Royal Indian Marine, Calcutta, forwarding copy of report by the Constructor of the Dockyard at that port on the list of defects found by the Board's Engineer in the Dredger "Wenlock."

Read also letter No.142 dated 23rd May 1899 from the Board's Engineer, remarking on the above.

Resolved that the Chairman address the Dy. Director, regarding the defects and informing him that the "Wenlock" will be returned to Calcutta as soon as the weather permits.

(True Extract)

C Smart

Secretary,

Harbour Trust Board.

Harbour Trust Office.

MADRAS, 15th June 1899.

No. 87/6

From

Herbert Bradley Esq I.C.S.,

Chairman, Harbour Trust Board,

MADRAS.

To

W.B.deWinton Esq,

Secretary to Government,

Marine Department.

Sir,

The dredger "Wenlock" has been transferred to the Harbour Trustees at a valuation of Rs 1,00,400 in part payment of balance due by out ports --Eastern group --to the Port of Madras in the Port Fund Accounts.

This adjustment was made in those accounts for March 1897 Vide G.O.No.228 Marine dated 12th March 1897.

2. The vessel has since been converted from a bucket to a suction pump dredger at the expense of the Harbour Trustees, the work of conversion being carried out at the Royal Indian Marine Dockyard Calcutta.

3. It was a condition of the transfer that the vessel was to "be put into a proper state of repair before she is handed over" vide para I of the G.O.quoted above.It was anticipated that she would leave Calcutta for Madras about the beginning of 1898,but it was more than twelve months later -March 1899- before she arrived at Madras.

4. The conversion from a bucket to a pump dredger has been satisfactorily accomplished,except that certain defects were found on arrival which had to be made good at a cost of about Rs 2,000.

there is however a very much more serious defect in the vessel. The hopper doors are not tight and will not hold the sand that is pumped into the well. Every endeavour has been made to rectify this defect at Madras, but it has been found impossible to do so. Nothing therefore remains but to return the dredger to Calcutta to be docked for the purpose of having these doors put into a proper state of repair at the risk and expense of Government. Of course this work ought to have been done before the vessel left Calcutta, but I understand the Dockyard authorities made no real trial of her before she was despatched, and the defect was not discovered.

6. The vessel is useless as a sand dredger at present, and I would request that very early steps may be taken to place her hull in condition to receive and discharge the sand delivered by her pumps into the hopper hold.

7. It is understood that she cannot be sent to Calcutta until the end of the present S.W. Monsoon, and I would point out that in the meantime the Harbour Trustees are without the means of dredging the Harbour, or of removing any accretion of sand which may take place at the entrance.

I have the honour to be,

Sir,

Your Obedient Servant,

Secy.

Chairman,

Harbour Trust Board.

Enclosures.

(I) List of defects.

(II) Letter No.1403 dated 3rd May 1899 from the Dy. Director R.I.M. Calcutta with enclosure.

(III) Letter No.142 dated 23rd May 1899 from the Board's Engineer.

(IV) Board's Resolution No.4 dated 9th June.