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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Public works.

DEPARTMENT

G.O. No.
B.P. No.

808 (W)

Press.
Mis.

Dated

10.2.1880.

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GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

10th February 1880, No. 308 W.

Buildings and Roads.
Civil Works.

Read the following paper:—

No. 20. From F. N. THOROWGOOD, Esq., M. INST. C.E., Superintendent, Madras Harbour Works, to the Secretary to Government, Public Works Department, Buildings and Roads, dated Madras, 3rd February 1880, No. 56 W..

I HAVE the honor to submit the following report of the progress on these works during the past month of January, in which only twenty days were available for sub-marine operations, five days having been lost through bad weather and two owing to the New Year and Pongul feast holidays.

2. *North Pier, Superstructure.*—During the twenty days in which they could work the divers were busily engaged at preparing the bed for the blocks in the north pier, but as the rubble bank has been tipped rather high a good deal of excavation had to be carried on, which was met by increasing the force of divers for a time. There have been 184 blocks set in January, advancing the pier by a length of 104 feet, and making the total length from the point B 2,475½ feet. The progress continues now more rapidly as the weather becomes more settled.

3. *North Pier, Rubble Base.*—From the 5th of January the two steam hoppers have been at work depositing rubble base, they have not however done a good month's work, as there have been several delays caused by the giving way of the gear for closing the doors of the stone compartments. I regret to state that I cannot regard these failures as exceptional, but fear that interruptions will constantly be occurring through mishaps on board these vessels, which are rather slightly built for the rough work they have to perform.

4. The total amount of stone deposited in the north pier base in January has been 16,580 tons, of which 12,917 tons were tipped from the steamers, and the remainder from cargo boats, which still have to be employed for finishing the top of the bank after the steamers have done their work.

5. The base of the north pier now terminates in nearly 8 fathoms water, and extends round the curve for a length of 470 feet from the end of the block-work. The amount of rubble stone in this advanced portion is approximately 44,000 tons.

6. *Concrete Block-making.*—I regret to state that we have been entirely dependent upon English cement for making blocks in January, and when that has been used up block-making has had to stop. General Morgan's cement has been of no use to me, and it is to be feared that in one month's time the absence of blocks which should have been made from his December and January cement will cause delay in progress. During the past month 323 blocks were made, 51 of which were made by hand-labour at the south pier.

7. If the local supply of cement had been what I had every reason to believe it would be, there would now be 300 more blocks on hand than is the case at present, and we should have every prospect of being able to make an unequalled amount of

progress in March, the best month in the year. As matters have turned out, however, I much fear that three weeks' delay will be inevitable. On this matter of cement supply I have lately addressed Government (No. 53 W., dated 27th January 1880), but I would take this opportunity of remarking that on a work of this size and nature delays are now becoming so costly that if they can be prevented by sending out cement by steamer the extra charge for freight would not be an absolute loss.

8. *Quarries.*—The outturn from both quarries is now being increased to its maximum rate, and five trains daily are received from each line of railway. During January there were sent from Ambatur 17,038 tons of laterite, and from Pallavaram 17,679 tons of stone, giving a total for the month of 34,707 tons. There were twenty-four working days in the month, so that the daily average of stone received has been 1,446 tons.

9. At Pallavaram on the 19th January I introduced the use of dynamite for blasting, and with most satisfactory results. I am not yet able to give any information as to its cost in quarrying as compared with powder, because at present very little has been used. I am pleased to find the native contractor is very anxious to use it generally.

10. *South Pier, Superstructure.*—At the south pier the progress has been very satisfactory. The rubble base having been neither too high nor too low, the divers' work has been light compared with that at the north pier. In the twenty working days of January 296 blocks were set, and the pier advanced 172 feet, making the total length from the point E on the 31st January 1,891 feet.

11. *South Pier, Rubble Base.*—Work at the base of the south pier has been carried on almost entirely by cargo boats during January, the steamers having been working at the north pier curve. There have been 12,150 tons deposited in the month, of which only 231 tons were tipped from the steam hoppers. The base now extends for a length of 680 feet ahead of the block work, and 450 feet of this length is made up nearly to the finished height. It now terminates in 8 fathoms water, and the curve northward is just commenced. The amount of rubble in advance of the block-work is approximately 48,000 tons.

12. *Protective Works to Beach.*—Very little has been done to the revetment by Mr. Coleman's house in January, as there is no immediate need for putting on much force at that work for a few months. On days when the sea has prevented work at the piers granite boulders have been conveyed along the extension of the line and used to protect the laterite slopes. For this purpose 231 tons of material have been used.

13. *Stores received on Works.*—The following stores have been received on the works during January:—

- 12 Suits, Divers' under clothing, S.S. *Duke of Argyll*.
- 952 Casks Portland cement, S.S. *Almora*.
- 15 Do. recovered from S.S. *Penguin* and S.S. *Verona*.
- 99 Sal-wood sleepers, S.S. *Madura*.
- 36 Do. do. S.S. *Chinsura*.
- 40½ Tons General Morgan's Cement (which is rejected).

14. *Plans and Sections.*—I submit herewith the monthly lithographed plan of the Harbour, showing the progress on the two piers in red and the extent of the rubble bases in a dotted line. Also two longitudinal sections of the block-work executed in January. Soundings have been repeatedly taken as a matter of course on both rubble bases, but there has been no opportunity of making such a survey of the base of the north pier as is worthy of being plotted. The outline on the accompanying section represents the north pier base on January 7th. Accurate sections will be taken in February.

15. *Expenditure.*—The total expenditure on the works to January 31st, as shown in this office books, has been Rs. 35,61,100, but to these figures an addition of not less than Rs. 50,000 must be made for cement received but not brought to account, and of about Rs. 16,000 for the sal-wood sleepers from the Forest Department. These amounts bring the liabilities up to about Rs. 37,00,000.

No. 21.

ORDER THEREON, 10th February 1880, No. 308 W.

RECORDED.

2. The Superintendent may, if he thinks fit, address Government separately on the subject of the concluding portion of his 7th paragraph.

(True Extract.)

Major, R.E.,

Ag. Under Secy. to Govt., P.W.D.

To the Superintendent, Madras Harbour Works.
Secretary, Harbour Works Committee.
To General Morgan.
Editor's Table.

Exd. S. T. Austin.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of 1880 Madras.
PUBLIC WORKS.

To
THE SUPERINTENDENT, MADRAS
HARBOUR WORKS,
&c., &c., &c.

Dated February, 10th.

Issued

Recd.

Encl.

G. O., 10th February 1880, No. 308 W.

FEBRUARY.

Nos. 20 21.

Madras Harbour Works. — Progress Report
for January 1880, recorded with remark.

No. 56 11.

3/308

From

THE SUPERINTENDENT,
MADRAS HARBOUR WORKS,

To

Colonel R. H. Lankey, C. B. C. E.
Secretary to Government P. W. Dept.
Buildings & Roads
Fort Saint George, Madras, 10th February 1880.

SIR,

I have the honor to submit the following report of the progress on these works during the past month of January, in which only 20 days were available for submarine operations, five days having been lost through bad weather and two owing to the New Year and Pongol Feast holidays.

North Pier
Superstructure.

2. During the 20 days in which they could work the divers were busily engaged at preparing the bed for the blocks in the North Pier, but as the rubble bank has been tipped rather high, a good deal of excavation had to be carried on, which was met by increasing the force of divers for a time. There have been 184 blocks set in January.

advancing the pier by a length of 104 feet, and making the total length from the point B 2175½ feet. The progress continues now more rapidly as the weather becomes more settled. -

3. From the 5th of January the two steam North Pier
Rubble Base
Hoppers have been at work depositing rubble base, they have not however done a good month's work as there have been several delays caused by the giving way of the gear for closing the doors of the stone compartments. I regret to state that I cannot regard these failures as exceptional, but fear that interruptions will constantly be occurring through mishaps on board those vessels which are rather slightly built for the rough work they have to perform.

4. The total amount of stone deposited in the North Pier base in January has been 16580 tons, of which 12917 tons were tipped from the steamers, and the remainder from cargo boats, which still have

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have to be employed for finishing the top of the bank after the steamers have done their work.
5. The base of the North Pier now terminates in nearly 8 fathoms water and extends round the curve for a length of 1470 feet from the end of the blockwork. - The amount of rubble stone in this advanced portion is approximately 44000 tons. -

Concrete
Blockmaking

6. I regret to state that we have been entirely dependent upon English cement for making blocks in January, and when that has been used up, blockmaking has had to stop. - General Morgan's cement has been of no use to me, and it is to be feared that in one month's time the absence of blocks which should have been made from his December and January cement, will cause delay in progress. During the past month 323 blocks were made, 51 of which were made by hand labour at the South Pier. -

7. If the local supply of cement had been what I had every reason to

to believe it would be, there would now be 300 more blocks on hand than is the case at present, and we should have every prospect of being able to make an unequalled amount of progress in March, the best month in the year. As matters have turned out, however, I much fear that three weeks delay will be inevitable. On this matter of cement supply, I have lately addressed Government (L. No. 5311 dated 27th January 1880), but I would take this opportunity of remarking that on a work of this size and nature, delays are now becoming so costly that if they can be prevented by sending out cement by steamer the extra charge for freight would not be an absolute loss.

8. The output from both quarries is now being increased to its maximum rate, and five trains daily are received from each line of railway. During January there were sent from

Ambathoor

5/38

Ambathoor 17,038 tons of laterite, and from Pallavaram 17,679 tons of stone, giving a total for the month of 34,707 tons. There were 24 working days in the month, & that the daily average of stone received has been 1446 tons.

9. At Pallavaram on the 19th January I introduced the use of dynamite for blasting, and with most satisfactory results. I am not yet able to give any information as to its cost in quarrying as compared with powder, because at present very little has been used. I am pleased to find the native contractor is very anxious to use it generally.

South Pier
Superstructure.

10. At the South Pier the progress has been very satisfactory. The rubble base having been neither too high nor too low, the divers work has been light compared with that at the North Pier. In the 20 working days of January 296 blocks were set, and the pier advanced 17 1/2 feet, making the total length

length from the point II on the 31st January 1891 feet.

11. Work at the base of the South Pier South Pier.
has been carried on almost entirely by Rubble Base
cargo boats during January, the steamers
having been working at the North Pier
curve. There have been 12150 tons deposited
in the month, of which only 237 tons
were tipped from the steam hoppers. The
base now extends for a length of 600 feet
ahead of the blockwork, and 450 feet
of this length is made up nearly to the
finished height. It now terminates in
8 fathoms water, and the curve north-
ward is just commenced. The amount
of rubble in advance of the blockwork is
approximately 10,000 tons.

12. Very little has been done to the Protective Work
revetment by Mr Coleman's house in to Beach.
January, as there is no immediate
need for putting on much force at
that work for a few months. On days
when the sea has prevented work at the
piers granite boulders have been conveyed
along the extension of the line and used
to protect the laterite slopes. For this pur-
pose 237 tons of material have been used.

The

6/208

Stores received 13. The following stores have been received
on works on the works during January:-
12 suits Divers under clothing - S.S. "Duke of Argyll"
952 Casks Portland cement - S.S. "Almora"
15 - ditto recovered from S.S. "Penguin" S.S. "Almora"
99 Sal wood sleepers - S.S. "Madura"
36 - ditto - S.S. "Chimera"
40½ tons General Morgan's cement (which is
rejected).

Plans & Sections. 14. I submit herewith the monthly litho-
graphed plan of the Harbour showing the
progress on the two piers in red, and the
extent of the rubble bases in a dotted line.
Also two longitudinal sections of the block-
work executed in January. Soundings
have been repeatedly taken as a matter
of course on both rubble bases, but there
has been no opportunity of making such
a survey of the base of the North Pier
as is worthy of being plotted. The
outline on the accompanying section
represents the North Pier base on January
7th. - Accurate sections will be taken
in February.

Expenditure. 15. The total expenditure on the work
to

G. N. Harrowood Esq. M. Inst. C. E.
Superintendent
Madras Harbour Works

G. H. D'Almeida
Superintendent
Schadras Harbour Works

G.O. No. 41 W-12-1-80

P.W.D.
4 FEB 80

Buildings & Roads

From the Superintendent
Madras Harbour Works

No 56 W
Dated 3rd February 1880

Proc. of Govt. of 10th Feb/80
No 308 W

No of Accompaniments 3

+ in library.

Submits report of progress
of the works during Jan'y
1880

Back No 20

Civil 5-2-80

13th Feb
No 308 W 8th W. Dept.
308

Pres. of the Madras Govt.

Under date the 10 Feb/80

Read the following

From

The Supt. of
Madras Harbour Works { H.E. No. 56 W dated
30th Feb'y 1880.

Recorded.

2. The Superinten-
-dent may, if he
thinks fit, address
Govt. separately
on the subject of
the concluding por-
-tion of his seventh

paragraph.

Supt. Madras
Harbour Works. H
Secy. Harbour Works
Committee
General Manager. 1

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Govt. of (1880) Madras.
PUBLIC WORKS.

To *Secy* 12-2-80. (9)
Dated
Issued
Recd. Encl.

G. O., 10 Feb, 1880, No. 3084

Nos. 20-21.

Madras Harbour Works
~~Report~~ Progress report
for January 1880, recorded
with remark.

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