

(1) பக்கங்களின் எண்ணிக்கை 2

(2) புதுக்கித் திருப்பிய நாள் 18-11-88

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

(23)

தமிழ்நாடு அரசு

P. W. D. துறை

அரசாணை எண்.
மு. கோப்புத் தாள் எண்.

27

அச்சகம்
பலவகை

நாள் :

8. 1 - 1889

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மடிக்கவோ கண்டபடி கையாளவோ கூடாது

செத

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ஆவண கா-1-18,006-15-6-87.

8TH JANUARY 1889, No. 27 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers:—

From R. W. BARLOW, Esq., C.S., Chairman, Harbour Trust Board, to the Chief Secretary to Government, dated Madras, 17th December 1888, No. 3674.

I have the honor to submit, for the information of Government, copy of a letter from the Board's Engineer, No. 1212, dated 7th December 1888, reporting in detail upon the progress made on the Harbour Works during the month of September 1888, together with a plan and statement showing comparison of expenditure for that month and the total up to the 30th idem.

ENCLOSURE.

From A. L. POGSON, Esq., Engineer, Harbour Trust Board, to the Chairman, Harbour Trust Board, dated Madras, 7th December 1888, No. 1212.

I have the honor to submit a report on the progress made on these works during the month of September 1888, with a plan in duplicate showing in red the wave-breaker blocks deposited to protect the superstructure built during the season.

2. The statement of expenditure is also submitted, in duplicate, in accordance with para. 2 of G.O., No. 3743 W.

3. *South Pier Superstructure.*—No advance at this arm was made during the month above water-level, but, as is usual at the close of the season, and with a view to making everything secure below water-level, four of the lower blocks were set in position which act as a footing to the pier, and would prevent any possible movement in the last row of blocks should a severe cyclone strike Madras.

4. *Wave-breaker.*—On the 11th of September the south pier Titan crane was turned so as to overhang the sea face of the wall, and on the 13th I commenced to deposit the wave-breaker blocks to a width of 28 feet from the face of the pier. This work was pushed on with as fast as possible, and, by the end of the month, 131 blocks of 30 tons each had been placed in position.

5. *Rubble Base.*—Fifty-five and a half tons of rubble was deposited from boats to make up the full section of the rubble base as far as the superstructure is completed.

6. *Concrete Block-making.*—The work of concrete block-making was carried on briskly up to the 26th evening, when 251 blocks representing 4,175½ cubic yards of concrete was the outturn in the month, after which date this work had to stop for the want of stone from the Pallavaram quarries.

7. *Stores from England.*—The steamers *India* and *Navarino* brought out 2,652 casks of Portland cement, containing 473 tons 18 cwts. 2 quarters 8 lb. and one case of stores.

8. *Sleepers, local supply.*—The contractor delivered 282 hard-wood sleepers during the month.

9. *Casuarina Firewood.*—Thirty-four tons of green casuarina firewood was delivered by the contractor during September.

RETURN OF WORK FOR SEPTEMBER 1888.

10. *Railway Lines.*—The lines at the beach and the quarries were kept in repair. 616 running feet temporary broad-gauge line and 24 running feet Titan line removed from south pier during monsoon. 104 running feet new steel rails and one crossing issued to renew worn out portions.

11. *Quarries*.—Two trains ran early in the month of September bringing chips and rubble from Pallavaram.

Rubble—

	TONS.
Total quantity received up to 30th September ...	3,50,552 $\frac{1}{2}$
Do. do. to 30th June 1888 ...	3,50,497 $\frac{1}{2}$
Received in September ...	55 $\frac{1}{2}$

Chips—

	TONS.
Total quantity received up to 30th September ...	1,10,090 $\frac{1}{2}$
Do. do. to 31st August 1888 ...	1,09,825 $\frac{1}{2}$
Received in September ...	265

Ballast ...	None received.
North Pier surf bank ...	Nothing done since 31st December 1886.
Do. rubble base ...	Do. 30th April 1887.
Do. superstructure ...	Do. 29th February 1888.
Do. supplementary works ...	Do. 30th September 1887.
Do. capping ...	Do. 31st May 1887.
Do. cramps ...	Do. 30th April 1888.
South Pier surf bank ...	

South Pier Rubble Base.

	FORESHORE.		Base.
	Large rubble under wave-breaker.	Widening foreshore.	
Total quantity deposited to 30th September ...	9,380	38,389 $\frac{1}{2}$	1,19,889 $\frac{1}{2}$
Do. do. to 30th April 1888 ...	9,380	38,334 $\frac{1}{2}$	1,19,889 $\frac{1}{2}$
Deposited in September ..	...	55 $\frac{1}{2}$	...

South Pier Superstructure.

	NOS.	CON. C. YDS.
Blocks set up to 30th September 1888 ...	1,187	19,260 $\frac{1}{2}$
Do. to 31st August 1888 ...	1,183	19,191 $\frac{1}{2}$
In September ...	4	68 $\frac{1}{2}$

South Pier Supplementary Works.

	Number of blocks.	Con. cubic yards.	Distance on pier.	Average breadth from face of pier.
				FEET.
Blocks deposited in wave-breaker up to 30th September ...	1,022	17,398 $\frac{27}{100}$		...
Blocks deposited in wave-breaker up to 30th April 1888 ...	891	15,040 $\frac{27}{100}$		...
In September ...	* 131	2,358	{ 2,850 to 3,179 2,838 to 2,361 $\frac{1}{2}$	30 25

* Wave-breaker blocks.

South Pier capping ...	Nothing done since 30th June 1888.
Do. cramps ...	Do. 30th April 1888.
Protective works ...	Nothing done.

Concrete Blocks.

Description of blocks.	Made up to 31st August 1888.	Made in September.	Made up to 30th September 1888.	PLACED IN WORK		In hand.
				Up to 31st August 1888.	Up to 30th September 1888.	
Old blocks ..	806	..	806	806	806	..
Wave-breaker blocks ..	2,592	22	2,614	1,927	2,058	556
Superstructure ..	..	..	..	..	..	..
North Pier bottom blocks ..	227	..	227	108	108	119
Do. middle do. ..	673	..	673	405	405	268
Do. top do. ..	222	..	222	130	130	92
South Pier bottom blocks ..	290	46	336	145	147	189
Do. middle do. ..	802	137	939	633	635	304
Do. top do. ..	294	46	340	233	233	107
Special blocks ..	71	..	71	71	71	..
Counter balance ..	1	..	1	..	..	1

Concrete blocks containing 4,175 $\frac{1}{2}$ cubic yards of concrete were made in the month, and block-making ceased on the 26th for want of stone. 116 wave-breaker and 65 superstructure blocks were transferred from north to south pier block grounds and stacked.

Nine hundred and twenty-eight tons cement was the balance on the works at the end of the month.

12. *Tools and Plant*.—*Stone-crushers*.—To No. 2 a new movable jaw and set plates were fitted; Nos. 3 and 5 set plates fitted; No. 4 a new side wedge fitted. Twelve handles were made and rivetted into set plates for the stone-crushers. Four concrete skips and three elevator boxes were repaired. No. 1 concrete mixer fitted was with a new door bracket and No. 6 with a new door catch. Nos. 1 and 2, Donkey pumps brass bearings closed.

No. 2, *Goliath Crane*.—Fitted with two new travelling wheels and two new brass bearings for the crab.

No. 3, *Goliath Crane*.—"Lift" of pumps regulated, new leather-washers supplied, and glands repacked.

No. 4, *Light Traveller*.—Liners fitted to pedestals of wheels.

13. *North Pier Titan*.—Chain fixed and greased; cradle removed from releasing gear; ballast tank tarred and fitted. Counterbalance fixed, driving gear eased, governor valve repaired, and brass bearings of connecting and coupling rods closed. This crane was run on to the masonry pier on the 9th to repair the wave-breaker crane ground for its reception, and was travelled back on the 16th to the spot where the wave-breaker crane formerly stood.

14. *South Pier Titan*.—Two new travelling wheels to the crab girder and ten $\frac{1}{2}$ inch turned bolts were fitted. The crane was turned into position for dropping wave-breaker blocks in foreshore on the 11th and stood at 2,349 feet from E. at the close of the month.

15. *Wave-breaker Crane*.—Under erection at the south pier.

No. 2, *Locomotive Engine*.—Waste water cocks repaired.

No. 3, *Locomotive Engine*.—New blower-pipe in smoke-box and cranks for waste water cocks were fitted.

Block Trucks No. 9.—A pair of wheels removed for repairs.

Do. No. 14.—Dismantled.

Sand Wagon No. 4.—A new coupling chain and hook and pin fitted.

Do. No. 5.—Two tail-boards and hinges were fitted.

Do. No. 7.—A pair of new wheels fixed.

Do. No. 9.—A door lock fitted.

Do. No. 10.—Dismantled.

Do. No. 11.—Repaired and fitted with new coupling chains. Two concrete skip trucks were repaired.

Dicers' air-pump repaired and fitted ready for use.

16. *Beach Improvements*.—*Iron Pier Repairs*.—Seventy feet (for the half width) of wood-work thoroughly renewed and for a length of 36' 4", 13' 9" wide, longitudinal beams and all the deck planking was removed.

17. *Eight-ton Pier Truck*.—A new 8-ton truck No. 12 was completed.

Trucks Nos. 16 and 17 were thoroughly repaired and No. 2 saloon carriage was repaired.

18. *Goods Sheds*.—All the masonry work to the two new goods sheds was completed and the roofing was being erected as speedily as possible.

Transferred to the Public Works Department.

(By order.)

18th December 1888.

(Signed) W. S. MEYER,
Assistant Secretary.

ORDER—dated 8th January 1889, No. 27 W., Public Works.

The report will be forwarded to the Secretary of State for India.

2. The attention of the Chairman, Madras Harbour Trust Board, is invited to para. 2 of G.O., No. 3743 W., dated 27th November 1888.

(Here enter No. $\frac{1}{27}$ W., dated 8th January 1889.)

(True Extract.)

(Signed) H. R. MEAD, Colonel, R.E.,
Ag. Secretary to Govt., P.W.D.

To the Chairman, Madras Harbour Trust Board.
„ Marine Department.

Exd. J. Henricus.
Spare Copies

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BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated January, 8th.

Recd.

Encl.

G.O., 8th Jan. 1889, No. 27 W.

JANUARY.

Madras Harbour Works

Orders on progress report on the — for
September 1888.

Harbour Trust Board Office.

MADRAS, 17th December 1888.

No. 3674

11
27
A

FROM

R. W. Barclay Esquire C.S.

CHAIRMAN, HARBOUR TRUST BOARD,

MADRAS,

TO

The Honorable J. F. Price C.S.

CHIEF SECRETARY TO GOVERNMENT,

Marine Department.

Fort Saint George.

Sir

I have the honor to submit for the
information of Government copy of a
letter from the Board's Engineer No 1212
dated 7. December 1888, reporting in detail
upon the Progress made on the Harbour
Works during the month of September 1888,
together with a plan and statement show-
ing comparison of expenditure for that
month and the total up to the 30. idem.

I have the honor to be

Sir
Your most obedient servant

Rec 10

10

M. M. M.

Chairman, Harbour Trust Board

MARINE DEPARTMENT.

FROM

THE CHAIRMAN,

HARBOUR TRUST BOARD,

MADRAS,

TO

THE CHIEF SECRETARY TO GOVERNMENT,

Marine Department.

DATED

17 } December 1888.

RECEIVED

ENCLOSURE (3).



3674.



SUBJECT.

Forwarding Report of
the Progress made on the
Harbour of Madras during
the month of September 1888.

GP

18 Dec 88

Transferred to the
Public Works Department
(By order)

Assistant Secretary

No 1212.

Enclure

2 GP

From

The Engineer

Harbour Trust Board

Madras

To

The Chairman

Harbour Trust Board

Madras.

Madras 7th December 1888.

Sir,

I have the honor to submit a
report on the Progress made on these
Works during the month of September 1888,
with a plan in duplicate showing in red
the wave breaker blocks deposited to protect
the Superstructure built during the Season.

The Statement of Expenditure is also
submitted in duplicate in accordance with
para 2 of G. O. No. 3743 W.

South Pier

Superstructure

No advance at this time was made
during the month, above water level, but
as is usual at the close of the Season and
with a view to making everything secure

below

below water level four of the lower blocks were set in position, which act as a footing to the Pier, and would prevent any possible movement in the last row of blocks, should a severe cyclone strike Madras.

On the 11th of September the South Pier Wavebreaker Titan Crane was turned, so as to overhang the sea face of the wall and on the 13th I commenced to deposit the Wavebreaker blocks, to a width of 28 feet from the face of the Pier. This work was pushed on with as fast as possible, and by the end of the month 131 Blocks of 30 Tons each had been placed in position.

55½ Tons of Rubble was deposited from boats to make up the full section of the rubble base as far as the Superstructure is completed. Rubble Base

The work of Concrete Blockmaking was carried on briskly up to the 26th evening when, 251 blocks representing 4175¼ cubic yards of Concrete was the out-turn in the month, after which date this work had to stop for the want of stone from the Pallavaram Quarries. Concrete Blockmaking

The Steamers "India" and "Navarino" brought Stores from England.

brought out 2652 casks of Portland Cement containing 473 ^{Tons} 18 ^{cwt} 2 ^{qrs} 8 ^{lbs} and one case of Stores.

27 22 3 50

Sleepers
Local Supply

The Contractor delivered 282 Hard wood Sleepers during the month.

Casuarina
Firewood

34 Tons of Green Casuarina Firewood was delivered by the Contractor during September.

Return of work for September 1888.

Railway
Lines

The Lines at the Beach and the Quarries were kept in repair. 616. Rg ft. ^{broad} temporary gauge line and 24 Rg ft. Titan line removed from South Pier during monsoon. 104 Rg ft. new Steel rails and one crossing issued to renew worn out portions.

Quarries.

Two trains ran early in the month of September bringing chips and Rubble from Pallavaram.

	Total quantity received	Tons
Rubble	up to 30 th September	350,552¾
	— do — 30 th June 1888	350,497¼
	Received in September	55½

Chips

Total quantity received Tons
 Chips { up to 30th September — 110,890 $\frac{3}{4}$
 — Do — 31st August 1888 — 109,825 $\frac{3}{4}$
 Received in September 265

Ballast none received.

North Pier Surf Bank. Nothing done since
 31st December 1886

— Do — Rubble Base
 — Do — Superstructure } — Do — 30th April 1887

North Pier Supplementary Works. Nothing done
 Since 29th February 1888

— Do — Capping — 30th September 1887
 — Do — Cramps — 31st May 1887

South Pier Surf Bank — 30th April 1888

South Pier Rubble Base

Total quantity deposited to } Large Rubble widening Base
 30th September } under wave Foreshore Breaker
 9380 — 38389 $\frac{3}{4}$ — 119889 $\frac{1}{2}$
 — Do — 30th April 1888. 9380 — 38334 $\frac{1}{4}$ — 119889 $\frac{1}{2}$
 Deposited in Sept. " — 55 $\frac{1}{2}$ — "

South Pier Superstructure.

Blocks set up to 30th September 1888. m^o Con: c. yds.
 1187 — 19260 $\frac{7}{9}$
 — Do — 31st August 1888. 1183 — 19191 $\frac{8}{9}$
 In September — 4 — 68 $\frac{8}{9}$

South Pier Supplementary Works.

Blocks deposited in Wave Breaker.

No. of Blocks — Con. c. yds. Dist. on Pier — Average Breadth from face of Pier 4 sp.

Up to 30 Sept. 1022 — 17398 $\frac{27}{216}$
 — Do — 30 April/88 891 — 15040 $\frac{27}{216}$
 In September *131 — 2358 { 2850 to 3179 } 30'
 { 2838 to 2361 $\frac{1}{4}$ } 25'

* Wave Breaker blocks.

South Pier Capping. Nothing done since 30th
 June 1888.

— Do — Cramps — Do — 30th April 1888.

Protective Works. Nothing done.

Concrete Blocks.

Description of Blocks	Made up to 31 st August 1888	Made in September	Made up to 30 th September 1888	Placed in work		In Hand
				Up to 31 st August 1888	Up to 30 th Sept 1888	
Old blocks	806	.	806	806	806	"
Wave breaker blocks	2592	22	2614	1927	2058	55
Superstructure						
North Pier Bottom blocks	227	"	227	108		119
Do Middle "	673	"	673	5	405	268
Do Top "	222		22	130	130	92
South Pier Bottom "	2	46	336	145	147	189
Do Middle "	802	137	939	633	635	304
Do Top "	294	46	340	233	233	107
Special "	71	"	71	71	71	"
Counter balance	1	"	1	.	.	1

Concrete Blocks containing 4175 $\frac{1}{9}$ C. yds of Concrete
 were

were made in the month and Block making ceased on the 26th for want of Stone. 116 Wave Breaker and 65 Super-structure blocks were transferred from North to South Pier block grounds and stacked.

928 Tons Cement was the balance on the works at the end of the month.

Tools and Plant.

Stone Crushers. To No 2. a new moveable jaw, and Set plates were fitted No 3 and 5 Set plates fitted. No 4 A new Side wedge fitted. Twelve handles were made and rivited into Set plates for the Stone Crushers. Four Concrete skips and three elevator boxes were repaired. No 1 Concrete Mixer fitted with a new door bracket, and No 6 with a new Catch No 1 and 2, (Donkey pumps brass bearings closed.

No 2. Goliath Crane. Fitted with two new travelling wheels and two new brass bearings for the Crab

No 3. Goliath Crane. Lift of pumps regulated, new leather washers supplied and glands repacked.

No 4. Light Traveller. Liners fitted to pedestals of wheels.

North Pier Titan. Chain fixed and greased. Cradle removed from releasing gear, ballast tank tamed and fitted. Counterbalance fixed, driving gear eased, governor valve repaired, and brass bearings of Connecting and Coupling rods closed. This Crane was run on to the Masonry Pier on the 9th to repair the Wave-breaker Crane ground for its reception, and was travelled back on the 16th to the Spot where the Wave-breaker Crane formerly stood.

South Pier Titan. Two new travelling wheels to the Crab girder and ten 7/8" turned bolts were fitted. The Crane was turned into position for dropping Wavebreaker blocks in foreshore on the 11th and stood at 2349' from E at the close of the month.

Wave Breaker Crane. Under erection at the South Pier.

No 2. Loco. Engine. Waste water cocks repaired.

No 3 Loco. Engine. New blower pipe
in Smoke box and cranks for waste water
cocks were fitted.

Block Trucks No 9. A pair of wheels re-
moved for repairs.

— Do — 14. (Dismantled.)

Sand wagon No 4. A new coupling chain
and hook and pin fitted.

— Do — 5. Two tail boards and
hinges were fitted.

— Do — 7. A pair of new wheels
fitted.

— Do — 9. A door lock fitted

— Do — 10. (Dismantled.)

— Do — 11. Repaired and fitted
with new coupling chains. Two Concrete Ship
trucks were repaired. (Divers Air Pump. Re-
paired and fitted ready for use.

Beach Improvements.

Iron Pier Repairs. 70 feet (for the half
width) of wood work thoroughly renewed;
and for a length of 36'-4", 13'-9" wide, longi-
tudinal beams and all the deck planking
was removed.

8 Tow Pier Truck. A new 8 Tow Truck No 12
was completed.

Trucks

Trucks No 16 and 17. were thoroughly
repaired and No 2 Saloon Carriage
was repaired.

Goods Sheds. All the masonry work
to the two new goods Sheds was completed
and the roofing was being erected as
speedily as possible.

I have the honor to be
Sir

Yours most obedient Servant.

(Signed) A. Lee Pogson

Engineer, Harbour Trust Board.

(True Copy)



C. J. Sivewright

Secretary,
Harbour Trust Board.

8

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 27/12/88

READ the following

From the Chairman M. H. J. Board No. 3674 of 17.12.88
Ends referred in the Marine Dept of 18.12.88.

The report will be forwarded to the Secy of State for India.

2. The attention of the Chairman M. H. J. Board is invited to para 2 of G.O. No. 3743 W of 27. Nov. 1888.

H. S. No. 274 W of 28-1-89
To the Rt. Hon. the S. of S. for India.

M. H. J. Board.

In continuation of our despatch No. 25 of 27. Nov. 1888
3743 W

To the Chairman M. H. J. Board
Marine Dept.

1888, we have the honour
 to forward herewith, for
 your Lordship's information,
 the progress report of
 works on the Madras
 Harbour for the month
 of September 1888, together
 with a statement of
 expenditure to date as
 compared with the sanc-
 tioned estimate, and
 a plan showing the
 advance made during
 the month.

WCOM
 21/12/88

M. M.
 21/12/88

D
 9/1/89

Received
 Entered in list of
 signature of
 Minute for
 made & etc.

Cs

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Govt. of (1888) Madras.

PUBLIC WORKS.

Dated

22/11/88

22/11/88

Read

Encl.

G.O. 8th January 1889, No. 274

274

Madras Harbour Works.

Orders on progress
report on the — for
September 1888.

For: Progress Report
of work on the Madras
Harbour works for
September 1888.

(13)