

(1) பக்கங்களின் எண்ணிக்கை

(2) புதுக்கித் திருப்பிய நாள்

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

49

தமிழ்நாடு அரசு

PWD

துறை

அரசாணை எண்.

மு.கோப்புத் தாள் எண்.

469

அச்சகம்

பலவகை

நாள் :

16.2.1989

1989

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following paper :—

From R. W. BARLOW, Esq., C.S., Chairman, Harbour Trust Board, to the Secretary to Government, Public Works Department, dated Madras, 11th February 1889, No. 550.

I have the honor to forward, herewith, a copy of the Engineer's letter, No. 1416, dated 30th January 1889, reporting progress upon the harbour, with a return of work done during the month of November 1888. I also forward a triplicate copy of comparison of expenditure to the 30th idem. Tracing of the harbour was not prepared, as there was no progress made at sea during the month.

2. Copies of the above have also been submitted to the Chief Secretary to Government, Marine Department.

ENCLOSURE.

From A. L. POGSON, Esq., Superintendent, Madras Harbour Works, to the Chairman, Harbour Trust Board, dated Madras, 30th January 1889, No. 1416.

I have the honor to forward a brief account of the work done on these works during the month of November 1888, which as usual during the monsoon is confined to repairs to all the cranes and machinery both in the block-making grounds and workshops, &c.

2. The statement of expenditure for November is submitted with a return of work, but as there was no progress made at sea, I have not prepared the usual plan of the harbour.

MADRAS HARBOUR WORKS.

3. *Concrete block-making.*—The most important work worth mentioning in addition to the information given in detail in the return of work was the very satisfactory way the concrete block-making contractor, M. C. Ragava Charry, carried on on this branch of the works. As many as 14 blocks have been made in a day while only working at one platform, where, with former contractors, 9 blocks was thought to be the greatest number possible, and as the progress when working at both piers would be retarded for the want of blocks, this increased outturn, while reducing the cost per cubic yard, is very important as well as satisfactory.

Two hundred and thirty-seven blocks were made during the month, of which 155 were for the wave-breaker, so that the total quantity of concrete made was 383½ cubic yards.

4. *Pallavaram quarries.*—The Pallavaram quarry lines were maintained in good order and repair during the month. Twenty-two trains conveyed to Madras 418 tons of chips and 245½ tons of rubble, which was deposited at the extreme end of the south pier, making up the base to the full required section.

5. *Stores from England.*—The following stores were received during the month of November :—

By the SS. *Manora*, 1,260 casks containing 225 tons of Portland cement.

By the SS. *Goleondah*, 1,056 casks containing 188½ tons of Portland cement, also 3 cases of iron spikes of sizes and 150 fathoms of iron chain ¾" ½" and ¾".

By the SS. *Duke of Buccleuch*, 952 casks containing 170 tons of Portland cement, also 48 special deal planks and two cases of hammers and washers for the stone-crushers.

By the SS. *Olan Grant* with iron bars round and square and 3 cases containing 2,000 fish plates and bolts which were much needed.

6. *Stores from local supply.*—The contractor for hard junglewood sleepers delivered 472 sleepers, of which 45 were for the Pallavaram quarries.

RETURN OF WORK FOR NOVEMBER 1888.

Railway lines.—The lines at the beach and the quarries were kept in repair during the month; 696 running feet Titan permanent-way and 787 broad gauge permanent-way was built in cement and 812 broad gauge temporary lines laid on south pier; 904 running feet of lines was taken up and 520 running feet laid at sand line; 2,296 running feet of steel rails was issued during the month.

Quarries.—Twenty-two trains worked during the month, bringing the following stone from the Pallavaram quarries.

		TONS.	
Rubble	Total quantity received up to 30th November ...	...	350,993½
	Do. do. to 31st October ...	...	350,748½
Received in November ...		...	245½
Chips	Total quantity received up to 30th November ...	...	117,879
	Do. do. to 31st October ...	...	113,461
Received in November ...		...	4,418

Ballast—none received.

North pier, surf bank—245½ tons rubble deposited

Do. rubble base } nothing done since 30th April 1887.
 Do. superstructure }
 Do. supplementary works—nothing done since 29th February 1888.
 Do. capping—33 cubic yards capping done.
 Do. cramps—nothing done since 31st May 1887.
 South pier, surf bank—nothing done since 30th April 1888.
 Do. rubble base do. 31st Oct. "
 Do. superstructure do. 30th Sept. "
 Do. supplementary works—nothing done since 31st October 1888.
 Do. capping—36½ cubic yards capping done.
 Do. cramps—nothing done since 31st October 1888.
 Protective works—nothing done.

CONCRETE BLOCKS.

Description of blocks.	Made up to 31st October 1888.	Made in November 1888.	Made up to 30th Novem- ber 1888.	PLACED IN WORK		In hand.
				Up to 31st October 1888.	Up to 30th November 1888.	
Old blocks	806	..	806	806	806	..
Wave-breaker blocks	2,635	155	2,790	2,266	2,266	524
Superstructure	..	..	..	..	..	..
North pier, bottom blocks	227	..	227	108	108	119
Do. middle do.	682	61	743	405	405	338
Do. top do.	225	21	246	130	130	116
South pier, bottom do.	336	..	336	147	147	189
Do. middle do.	939	..	939	635	635	304
Do. top do.	340	..	340	233	233	107
Special	71	..	71	71	71	..
Counterbalance	1	..	1	..	..	1

3,883½ cubic yards of concrete was made in the month, from which the above blocks were made.

There was no block-making on the 9th on account of it being a holiday and heavy rain stopped work on the 24th.

1,427 tons cement was the balance at the end of the month.

TOOLS AND PLANT.

Stationery engine-boiler.—Nos. 1 and 2 donkey pumps, brass bearings closed.
Stone-crushers.—The iron work for a new shoot was made.
 No. 1.—White metal run and fixed new jaws, two new side wedges and set plates fixed.
 No. 2.—A new hook for the pump rod was made and two new side wedges were fixed.
 No. 3.—Two new jaws, two side wedges, one pair brass bearings, and set plates were fixed and grooves chipped for new movable jaws.
 No. 4.—New set plates were fixed.

No. 5.—Two new jaws, two side wedges, and a new key to the fly-wheel was fixed.

Concrete mixers, No. 5.—A new door catch was fixed and the brass bearings closed.

No. 6.—Brass bearings closed and four hammers were made for the doors.

Elevators.—Six elevator boxes were repaired.

Concrete skips.—Two repaired. Portable cranes on mixing platform Nos. 1 and 2 each fitted with a new chain.

No. 1 *Goliath crane.*—This crane was repainted and put in thorough repair.

No. 2 *Goliath crane.*—Was fitted with a new hydraulic piston leather.

No. 3 *Goliath crane.*—Was painted and a new travelling wheel fitted to the crab.

Sundries.—Thirteen bolts repaired and a chain sling made for blocking the frames. Shunting ropes were also made for Nos. 1 and 3 locomotive engines. Six knee pieces were made for wedges for lewis and eighty-four spike nails for the diving boats.

Divers' air pump.—Brass bearings closed, twelve $\frac{3}{8}$ " bolts, three new screw divers, six fly nut spanners, one hexagonal box spanner, nine spanners of sizes and two new nuts for water-pipe were supplied.

Wave-breaker crane.—The erection of crane was progressing. Two new lever pins, a new end for brake lever, twelve bolts, six new shafts and sixteen keeps for the travelling wheels were made.

South Pier Titan.—A new travelling wheel for the crab and another for crab carriage was fitted and the other travelling wheel of the crab were chipped.

No. 1 *Locomotive engine.*—Brass bearings of connecting and coupling rods closed, waste-water and blow of cocks and coupling chain repaired, boiler cocks and clack box and safety valves ground, left-hand dummy joints remade and foot-steps straightened.

No. 2 *Locomotive engine.*—Brass bearings of connecting and coupling rods closed. Two waste-water cocks and blow through cock for water gauge column fitted and waste-water cock gearing set.

No. 3 *Locomotive engine.*—Dummy gland joints made and boiler cocks ground.

Sand wagons No. 7.—Painted and a pair of new wheels fitted.

Sand wagons No. 10.—Rebuilt and painted.

Sand wagons No. 11.—Painted and a pair of new wheels fitted.

Skip trucks.—The ironwork of these new trucks was made and fitted.

Materials trucks.—Two new axles made and fitted to the wheels.

HARBOUR TRUST.

Beach improvements.—The new shed north of iron pier was completed with the exception of the guttering 116½ running feet, new broad gauge siding was laid and a turn-table near the north goods shed completed. The turn-table connecting Madras Railway stores with iron pier was also completed.

Iron pier.—Forty feet half width of the pier woodwork was renewed and two pile caps fixed.

No. 6.—Sentry-box was repaired. The door of the combustible shed was repaired.

No. 3.—B-class portable crane was thoroughly repaired.

A stand and cage was made for meteorological instruments erected for the use of the Port office.

The ironwork for one of the leading lights of the harbour entrance was completed.

ORDER—dated 16th February 1889, No. 469 W., Public Works.

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

(Here enter No. $\frac{6}{469 W.}$, dated 16th February 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. A. D. Xavier.
 Spare Copies

2

BUILDINGS AND ROADS.
CIVIL WORKS.

Gobt. of {1889} Madras.
PUBLIC WORKS.

Dated February, 16th.

Recd.

Encl.

G.O., 16th Feb. 1889, No. 469 W.

FEBRUARY.

Madras Harbour Works

Progress report of the — for November
1888, ordered to be forwarded to the
Secretary of State.

16 Feb - 489 BTR
CW

Harbour Trust Board Office,

MADRAS, 11 February 1889.

No. 550

FROM

R. W. Barlow Esquire. Es

CHAIRMAN, HARBOUR TRUST BOARD,

MADRAS,

TO

Colonel H. R. Ince R. E.

CHIEF SECRETARY TO GOVERNMENT,

Public Works Marine Department.

Chepauk.

Sir

I have the honour to forward
herewith a copy of the Engineer's
letter No 1416 dated 30 January
1889, reporting progress upon the
Harbour, with a return of work done
during the month of November 1888.
I also forward a triplicate copy of
comparison of expenditure to the 30th
idem. Tracing of the Harbour was not
prepared as there was no progress
made

made at sea during the month.

2 Copies of the above have also been submitted to the Chief Secretary to Government Marine Department.

This will be unnecessary in future under recent orders -
by

I have the honor to be
Sir

your most obed^t servant

P. sec

M. Morison
Chairman
Harbour Trust Board

465

465

4

No. ³ 177W - 23-1-89.
 177W - 23-1-89.
 560C - 5-2-89.
 76W - 11-1-89.
 27W - 8-1-89.
 3743 W - 27-11-88
 3050 W - 20-9-88
 2190 W - 6-8-88
 2065 W - 9-7-88

File 1422
 MARINE DEPARTMENT.
 FROM
 THE CHAIRMAN,
 HARBOUR TRUST BOARD,
 MADRAS.

To
 THE CHIEF SECRETARY TO GOVERNMENT,
Public Works Marine Department.
Chennai

DATED 11 } February 1889.
 RECEIVED 13 }
 ENCLOSURE 2 }
 No. 550

SUBJECT.

Forwarding copy of report
 upon progress made on
 the Madras Harbour Works
 during the month of November
 last.

N. 1416
 From
 The Superintendent
 Madras Harbour Works
 To
 The Chairman
 Harbour Trust Board
 Madras
 Madras 30th January 1889

Sir

I have the honor to forward
 a brief account of the work done
 on these works during the month
 of November/88 which as usual
 during the monsoon is confined
 to repairs to all the cranes and
 machinery both in the Blockmaking
 grounds and Workshops &c.

2 The Statement of Expenditure
 for November is submitted with a
 return of work, but as there was no
 progress made at sea. I have not
 prepared the usual plan of the
 Harbour.

Madras Harbour Works

Concrete 3 The most important work
 Blockmaking worth mentioning in addition to the
 information given in detail in the
 return

Return of work, was the very satisfactory may the Concrete Blockmaking Contractor M. C. Nagara Charan carried on, on this branch of the Works. As many as 14 blocks have been made in a day while only working at one platform, where, with former contractors 9 blocks was thought to be the greatest number possible, and on the progress when working at both piers would be retarded for the want of blocks. This increased output while reducing the cost per cubic yard, is very important as well as satisfactory.

237 Blocks were made during the month of which 155 were for the Wavebreaker so that the total quantity of concrete made was $3883\frac{1}{3}$ Cubic yards.

4 The Pallarerau Quarry lines Pallarerau were maintained in good order and repaired during the month. Twenty two trains conveyed to Madras 4448 tons of chips and $245\frac{1}{2}$ tons of rubble, which was deposited at the extreme end of the South Pier making up the Bone to the full required

required Section. 351
Stores from England received during the month of November.

By the SS "Manora" - 1260 casks containing 225 tons of Portland Cement.

By the SS "Golconda" - 1056 casks containing $188\frac{1}{2}$ tons of Portland Cement, also 3 cases of Iron Spikes of sizes and 150 fathoms of Iron Chain $3\frac{1}{4}$ " $\frac{1}{2}$ " + $3\frac{3}{8}$ "

By the SS "Duke of Buccleuch" - 952 casks containing 170 tons of Portland Cement also 48 special Real Hawks and two cases of Hammers and rockers for the Stone Crushers.

By the SS "Blau Grant" with Iron bars round and square and 3 cases containing 2000 Fish Plates and bolts which were much needed.

Stores from Coal supply The contractor for Hard Jungle wood sleepers delivered 472 sleepers of which 45 were for the Pallarerau Quarries.

Return of Work for November 1888.
Railway Lines The lines at the Beach and the

The Quarries were kept in repair during the month 696 Running feet Silau permanent way and 787 broad gauge permanent way was built in Cement and 812 broad gauge temporary lines laid on South Pier 904 Sq. feet of lines was taken up and 520 Sq. feet laid at Sand line. 2296 Sq. feet of Steel rails was issued during the month.

Quarries. Twenty two (22) trains worked during the month bringing the following stone from the Pallarean Quarries.

Rubble { Total quantity received up to 30 Nov. - 358993 $\frac{3}{4}$
 — Do — 3rd Oct. - 350748 $\frac{1}{4}$
 Received in Nov. - 245 $\frac{1}{2}$

Chips { Total quantity received up to 30 Nov. - 117879
 — Do — 3rd Oct. - 113461
 Received in November 4418

Ballast None received

North Pier Drift Bank. 245 $\frac{1}{2}$ tons Rubble deposited

— Do. Rubble Bone } Nothing done since 30th April 1887.
 — Do. Superstructure }
 — Do. Supplementary Works — Do. — 29th February '88

North Pier Capping. 336 yds capping done

— Do. — Graupso. Nothing done since 3rd May 1887

431

South Pier Surf Bank Nothing done since 30th April 1888

— Do. Rubble Bone — Do — 3rd Oct. 1888

— Do. Superstructure — Do — 30th September 1888

— Do. Supplementary Works — Do — 31st October 1888

— Do. Capping — 36 $\frac{1}{2}$ b. yds. Capping done

— Do. Graupso. Nothing done since 3rd Oct. 1888

Protective Works — Nothing done

Concrete Blocks

Description of Blocks	Made up to 30 Nov. 1888	Made up to 30 Nov. 1888	Made up to 30 Nov. 1888	Placed in work		In hand
				406 1888	406 1888	
Old Blocks	806	806	806	806	806	
Ware breakers Blocks	2635	153	2790	2266	2266	524
Superstructure						
North Pier Bottom Blocks	227		227	108	108	119
Do. Middle do.	682	61	743	405	405	338
Do. Top do.	225	21	246	130	130	116
South Pier Bottom do.	336		336	147	147	189
Do. Middle do.	939		939	635	635	304
Do. Top do.	340		340	263	233	107
Special	71		71	71	71	
Counterbalance	1		1			1

388 $\frac{2}{3}$ yds of Concrete was made in the month from which the above Blocks were made.

There was no Blockmaking on the 9th on account of it being a holiday and heavy rain stopped work on the 24th.

1427 Tons cement was the balance at the end of the Month.

Tools and Plant

Stationery engine boiler No. 1 and 2

Diesel pumps, brass bearings closed,
Stone Crushers - The iron work for a
new short was made

No. 1 - White metal run and fixed
new jaws two new side wedges
and set plates fixed

No. 2 - A new hook for the pump
rod was made and two new side wedges
were fixed

No. 3 - Two new jaws, two side wedges
one pair brass bearings and set
plates were fixed and grooves chipped
for new moveable jaws

No. 4 - New set plates were fixed

No. 5 - Two new jaws two side wedges
and a new key to the fly wheel was
fixed

Concrete Mixers No. 5. A new door
catch was fixed and the brass bear-
ings closed

No. 6 - Brass bearings closed and
four hammers were made for the
doors

Elevators - Six elevator boxes were
repaired

Concrete Skips - Two repaired

Portable cranes on Mixing Platform
No. 1 and 2 each fitted with
a new chain

No. 1 Goliath Crane - This crane
was repainted and put in thorough
repair

No. 2 Goliath Crane - Was fitted
with a new hydraulic piston leather
No. 3 Goliath Crane - Was painted
and a new travelling wheel fitted
to the Crab

Shunters - Thirteen bolts repaired
and a chain sling made for
blocking the frames. Shunting
ropes were also made for No. 1 and 3.
Loco engines. Six knee pieces were
made for wedges for lewis and
eighty four spike nails for the diving
boats

Divers Air pump - Brass bearings
closed, twelve 3/8" bolts, three new
screw divers, six fly nut spanners
one hexagonal box spanner some
spanners of sizes and two new nuts
for water pipe were supplied

Wave breaker crane - The erection
of crane was progressing. Two new
lever pins, a new end for brake lever,
twelve

twelve bolts, six new shafts and
fifteen keeps for the travelling
wheels were made.

South Pier Pillar. A new travelling
wheel for the crab and another
for crab carriage was fitted and the
other travelling wheel of the Crab
were chipped.

No. 1 loco Engine. Brass bearings of
connecting and coupling rods
closed, waste water and blow off cocks
and coupling chain repaired,
boiler cocks and slack box and
safety valves ground, left hand
dummy joints remade and foot
steps straightened.

No. 2 loco Engine. Brass bearings
of connecting and coupling rods
closed. Iron waste water cocks and
blow through cock for water gauge
column fitted and waste water cock
gearing set.

No. 3 loco Engine. Dummy gland
joints made and boiler cocks ground.

Sand Riggers No. 7. Painted and a
pair of new wheels fitted.

— Do — No. 10. Repaired and painted

— Do — No. 11. Painted and a
pair of new wheels fitted.

¹⁸⁶⁹ ^{Feb 6} ^{SP}
Ship bucks. The iron work of
these new Smacks was made and fitted.
Materials bucks. Iron new axles
made and fitted to the wheels.

Harbour Trust

Beach Improvements. The new shed
north of Iron Pier was completed with
the exception of the guttering 16 1/2 in.
feet new broad gauge siding was
laid and a turntable near the
North Goods shed completed. The
turntable connecting Madras
Railway Stores with Iron Pier was
also completed.

Iron Pier 40 feet half width
of the pier woodwork was renewed
and two pile caps fixed.

No. 6. Sailing box was repaired
The door of the Combustible
shed was repaired.

No. 3. S. Class Portable crane
was thoroughly repaired.

A stand and Cage was made
for Meteorological Instruments
erected for the use of the Post
Office.

The iron work for one of the
leading lights of the Harbour
Entrance

Entrance now completed.

Have to
(Signed) A. P. S. S. S.
Engineer, Harbour Trust B.O.

(True copy)



Gen

C. J. S. S.
Secretary
Harbour Trust Board.

9A

142/89

B. & K.
cl works

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 16th July / 89

Read the following

From the Chairman Mr. H. J. B. H. 4. 550 of 11.2.89

The report will
be forwarded to the Secy
of State for India -
H. 4. 469 W 16 July / 89
to Mr. R. H. H. S. B. for
India

My Lord.

In continuation
your despatch No. 177 W
dated 23rd January 1889, we
have the honour to forward
for your Lordship's in-
formation the progress
report of the Madras Har-
bour Works for the month
of

14th
15 Feb

9

Ch. Mr. H. J. B. 21/2/89
Marine Dept

CP 8

of November 1888, together
with a statement of expenses
during the date compared
with the sanctioned estimate.

[Signature]

2. A plan is not for-
warded with this report,

as no progress was made
at sea during the month.

[Signature]
14.2.89

[Signature]
14/2/89

Print
soon

Despatch with
No 4694 Va
Statement
28/2/89

[Signature]
14-2-89
R. 16.2.89

469

9

60

11

Govt. of (1889) Madras.
PUBLIC WORKS.

Dated

Soon

Recd.

Encl.

G.O. 16 Feb 1889 No. 4694

Madras Harbour Works

Proposed report of the -
for Harbours, ordered to
be forwarded to the
Secy of State -

Madras works

To S.G.S

Forwarding Proposed report
of the - for Harbours

80/2 ✓ Des. Admin. none

(11)

(11)

37/12