

1. Number 43-22
2. Date of receipt 15-1-37
3. Initials of Referencer

M.B.O. 1-32,400-22-11-30.

MADRAS RECORD OFFICE.

Government of Madras.

Public **DEPARTMENT.**

G.O. No.	1028	Press ~~Mis.~~
Dated	22-7-	1869

Not to be folded or roughly handled

FROM

R. A. DALYELL, Esq.,
Acting Secretary to the Government of Fort Saint George,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
HOME DEPARTMENT.

SIR,

In reply to Mr. Under Secretary Geoghegan's letter, No. 2881, dated the 22nd

No. 4057, dated 7th July 1869.

June, I am directed to transmit copy of the marginally noted letter from the Master Attendant, Madras, in which he states his

opinion that the mode of measuring Emigrant Vessels which is in vogue in Madras, is by far the best of the three systems described in the enclosures to the letter under reply.

2. While it appears to His Excellency the Governor in Council that, both as regards the superficial area of the deck and the height between decks, and consequently the cubic space, the dimensions arrived at by the Calcutta method will be slightly less than those obtained under the Madras system, and that the former would consequently be the safer of the two; yet, as both are merely approximative, and the difference is but slight, His Excellency in Council deprecates any change being made, for the sake of uniformity, in a system which is simple, which has been found to work well in practice, and which has become well-known and customary in this presidency.

FORT SAINT GEORGE,
22nd July 1869.

I have the honour to be,
Sir,

Your most obedient servant,

Actg. Secy. to Govt.

From the Master Attendant, Madras, to the Chief Secretary to Government, Fort Saint George; dated Madras, 7th July 1869, No. 4057.

Administrative Department.

I have the honour to acknowledge receipt of the papers marginally noted, and the endorsement thereon, referring them

Letter from the Under Secretary to the Government of India, to the Secretary to Government, Fort Saint George; dated Simla, 22nd June 1869.

to me for report.

Copy of a letter from the Colonial Secretary to the Government of the Mauritius, to the Secretary to the Government of India, dated 8th May 1869, No. A 680.

2. After carefully perusing the reports from the three presidencies regarding the several modes of measurement of

emigrant ships, I am strongly of opinion that the Madras method is by far the best of the three.

3. It is simple and sufficiently comprehensive for accuracy. Since the establishment of emigration from Madras to the Mauritius and other English dependencies, I am not aware of a single complaint having ever been made of overcrowding the ships, or of want of sufficient ventilation. The elaborate nicety of the "Sterling's" mode of measurement is more liable to error, and even a slight mistake in the numerous measurements and calculations might lead to evil results.

4. I, therefore, respectfully recommend that the Madras mode of measurement be continued, at any rate, in this presidency.

Exd. J. Wright.

General Branch
Registered No. A/680.

Mauritius
Colonial Secretary's Office
8th May 1869.

Sir.

The Secretary of State for the Colonies having forwarded to His Excellency the Governor a Report from the Emigration Commissioners relative to the overcrowding of certain Emigrant Vessels despatched from Bombay to Mauritius prior to April 1864 and suggesting the desirability of establishing a uniform system of measuring Emigrant Vessels. His Excellency directed that the Mauritius & Emigration Agents should be requested to state what system of measurement was adopted in measuring vessels taken up for their Agency.

To The Secretary to the
Government of India.

L.

Home 1869 Dept.

From the Government of
Fort St. George.

Dated 22nd July 1869.

R.

No.
Enclosures
Spare copies

D. No.

L. No. 1023.

Progs. {
D.
No.

JULY.
Nos. 165-167.

Deprecating any change being made in the
system of measuring Emigrant Vessels, which is in
vogue in Madras.

2. From the enclosed copies of Correspondence it will be seen that different systems of measurement of Emigrant Ships are in force in the two three Presidencies and His Excellency has instructed me to bring the matter under your consideration with a hope, that decision will be given for the adoption of an uniform system

I have &c
Signed

Colonial Secretary

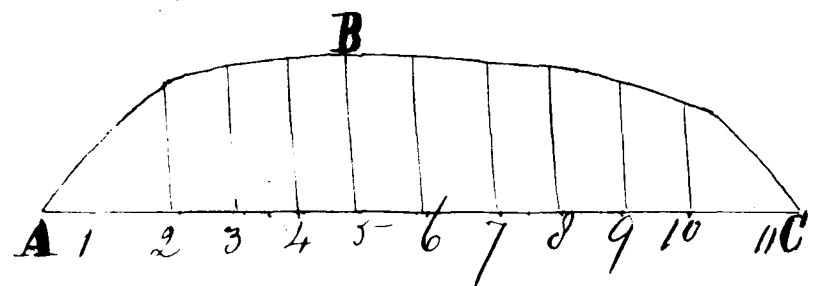
No. 1247.

The Emigration Agent
for Mauritius

Dated Port William the 4th March
1869.

Sir.

In reply to your No. 12 of the 20th Instant I have the honor to inform you that the Rule by which the passenger decks of Emigrant vessels are measured in Calcutta is that which is commonly known as Sterling's first rule for measuring the area of a superficial space enclosed by a Curve and a straight line taken as a base the formula for which is here given.



A. B. C. is the Curve line and A. C. the base, the base A. C. is divided into an ^{even} ~~equal~~ number of equal parts (10 is the number generally used in ships of ordinary length i.e. not exceeding 200 feet), giving eleven points of division and the vertical measures of the ordinates i.e. lines drawn from the points of division square to A. C. or the middle line of the deck and meeting the curve line are taken and used as in the following formula viz:—

Let A = the sum of the first and last ordinates which in the case of the figure A. B. C. will be nothing.

+ P = sum of even number ordinates multiplied by 4.

2 Q = twice the sum of the odd ordinates, and let R = the vertical measure of the common interval between the ordinates

or one of the equal divisions of the line A. C. then Area = $\frac{(A + 4P + 2Q)R}{3}$
This area so found being half the superficies of the deck is multiplied by 2 which gives the gross area.

From this gross area is subtracted the superficial area of all hatchways sectional areas of all masts. pump Casings, Stairways Bitts and other obstructions and the remainder is the area available for the accommodation of Emigrants.

The mean height of the lower decks is also taken by measuring the height from Deck to Deck amid the ships at each end and in the Centre of the vessels length from these heights as the third of the spring or round of beam is deducted, and the mean of the three measures is the mean height of the lower decks area.

if it amounts to 6 feet it is evident that for every 12 Superficial feet there will be 72 Cubical feet of space which is the amount demanded by the Act.

The measurements of the ordinates are taken from the Centre of the ship to the Spar-Netting above the water-ways thus



A copy of the Govt. orders regarding the adoption of Tait's Rule in the measurement of Emigrant ships is forwarded and I know of no other regulations or instructions in force in Calcutta on the subject.

I have &c.

Offg. Master Attendant,

Memorandum.

Mode of measuring Emigrant Vessels as in use at Madras.

The length is taken from the Stern Post to so far abaft the Stern as will allow of 6 feet breadth being taken.

For medium breadth measurements are taken at every 10 feet of aforesaid length.

For Height the measurement is taken half way between midships and ship's side - (to allow for spring of the beam) Hatchways, Pump-well, Chain lockers, Beams, Masts, Stanchions and all like obstructions, are deducted when calculating what number the space given up in a vessel will hold.

Signed J. B. Crowther
Govt. Emigration Surveyor.

No 90 of 1869.

Protector of Emigrants' Office
Bombay 18th January 1869.

To
The Emigration Agent
at Bombay for the
Mauritius Government.

Sir.

According to your letter bearing date the 12th Instant I beg to inform you, that in the absence of records, I am unable to give you the rules practised by my predecessors in the measurement of Emigrant Vessels, but since I have been in charge of the duties of Protector of Emigrants the following method has been carried out by me.

1st. The length of the vessel is taken from the Transom to as far forward as where the beam of the ship measures twelve feet

feet but no further. (6) +
2nd In the beam of the ship the mean of three places is taken viz. -

Across the Fore hatchway
do Main do
do After do

3rd The height between decks is measured from deck to deck

4th From the results of these measurements are deducted the space occupied by Hatchways, Chain lockers, bitts, Masts, Pumps and also Stanchions if they are very large. Hereunto forward you for an example a statement of the measurement and calculation of the ship "Colgrain"

I have &c
signed W. G. Clarke
Protector of Emigrants.

Ship

Ship Colgrain of 623 Tons
for Emigrants

Length ^{ft} 120 .. Cut out space $6.3. \times 5.8 = 36.54$
 Breadth 27 - 7 - " " " $9.8. \times 7.8 = 76.44$
 Depth 6 - 7 - " " " $8.5. \times 6.4 = 54.40$
 " " " " " $5.2. \times 5.3 = 27.56$

Total Cut out space - 194.94

27.	6.3.	9.8
120.	5.8.	7.8
<u>33240</u>	<u>403</u>	<u>78.4</u>
1949	315	686.
<u>3129.1</u>	<u>3034</u>	<u>64.4</u>
6.7	8.5	52
219037	6.4	53
189746		15-6
<u>209649.7</u>	<u>510</u>	<u>260</u>
<u>209649.7</u>	<u>5440</u>	<u>27.56</u>

$\times = 12 = 260 \frac{3}{4}$ superficial space 3034

$7 \times 72 = 29$ cubic space 340

10/1/189.

10/1/189. Copy
 John A. Smith
 Assistant Secretary
 Home Department

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Under key to the house of Sud a

The Secretary to the Government

Fort Saint George

Dated. Simla, 22 June 1869.

Ver.

Yours most obed^t. servant

Springman

under Secy to the Govt of India

Chas. S. King M.
Nov. 1870 Dec. 26

27th Nov: 25th July 1892 at 11:15

Lahti 1598/59

Public Department

No. 1028.

To

The Secretary to the Government
of India.

Home Department

Sir,

In reply to Mr. Under
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No. 2881 dated the 25th June,
I am directed to transmit
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Enclosure by B. G.

W. H. A.

Public Department
1870 July 26.

Public Department
1870 July 26.

No. 1028.

Refer to the
Master Attendant,
Madras.

Enclosure
by B. G. A. to the
Master Attendant,
Madras.

Letter from the
Master Attendant,
Madras.

Forwarded to the
Master Attendant of the
Colombo and the
Surabaya and the
Banda, very well the
-ed in the Navy
also

2/11/70
2/11/70
2/11/70

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sake of ~~uniformity~~ uniformi-
ty, in a system which is
simple, which has been
found to work well in
practice, and which has
become well known and ac-
tually in the Presidency

by
M

Fort St George
22 July /69.

*Published by the
Government of
the United States
1870-1871*

186

Department

No.

To

The Secretary to the
Government of
Department

Dated

186
J. N. 2088