

INDEXED.
Local & Munl. (1897) Department.

MISCELLANEOUS.

G.O., No. 1195 M

DATED 14-5-97

DESPATCHED

[Despatch Abstract.]

Act Regarding govt approval
certain addition to rule 21 of the rules under
the Madras Steam Boilers and Prime Movers
Act III of 1893 proposed by the Sanitary
Engineers ordering the public of the ne-
cessary notice in the Fort St George Gazette

BACK PAPERS.

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LOCAL & MUNICIPAL DEPT
CURRENT No. 1898. m

Recd. 3 MAY. 1897
Regd. 1897.

Enclosures

Spare copies 6

G.O., No. 1018 W., 10th April 1897.

APRIL.

Madras Steam Boilers and Prime Movers Act (III of 1893)

Certain addition to rule 21 of the rules under the — proposed by the Sanitary Engineer to Government, approved and a notification to that effect ordered to be published in the Fort St. George Gazette.

Misc

Order No 1195 M. mis. dt 14-5-97.

Recorded.

V.A.
12/5/97

11/5/97
24/5/97

Copy to the President, usual copy 19/5/97
Comd. Madras.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following papers :—

From J. A. JONES, Esq., M.I.C.E., F.R.S.E., Sanitary Engineer to Government and Inspector of Steam-boilers and Prime-movers (*ex-officio*), to the Secretary to Government, Public Works Department, dated Fort St. George, 16th March 1897, No. 537.

I have the honour to forward copy of a letter from the Inspector of Steam-boilers and Prime-movers for consideration. There is nothing in the rules to allow of the grant of a higher pressure than 128.20 lb. as shown in the letter. The rules do not allow for any furnace constructed with Adamson's rings, nor do they give power to the Sanitary Engineer to deal with such a case as this. It would be unfair to limit the pressure to 128 lb., and the Boiler Inspector considers it safe to issue the license for 175 lb.

2. It is suggested that a footnote be added to the second formula in rule 21 to the following effect :—

"When furnaces are fitted with two Adamson rings, the following formula may be substituted—

$$\frac{11,400 \times T}{D} = \text{Working pressure in lb. per square inch;}$$

Where T is the thickness of the plate in inches;

D outside diameter of furnace in inches;

and when furnaces are fitted with a series of Adamson rings not more than 23" apart, the formula to be used will be—

$$\frac{1,000 \times (T - 2)}{D} = \text{Working pressure in lb. on the square inch;}$$

Where T = thickness in sixteenths of an inch;

D = outside diameter of furnace in inches."

ENCLOSURE.

From H. T. WALTERS, Esq., Inspector of Steam-boilers and Prime-movers, Madras, to the Sanitary Engineer to Government, dated 15th March 1897, No. 72.

I have the honour to forward a sketch of a boiler belonging to Messrs. Binny & Co., Perambur, now working at the Buckingham Mill.

2. The boiler was constructed by Messrs. D. Adamson of Dukinfield, England, and passed at a safe working pressure of 175 lb. per square inch by Mr. W. T. Parrack, Inspecting Engineer of London, but according to rules laid down (*vide Fort St. George Gazette*, dated 26th January 1897) the boiler must not work beyond 128.20 lb. (*vide* rule 21). The furnace is 39" in diameter, longitudinal joints are welded and is made in eight segments, each fitted with Adamson flanged rings.

3. I request you will be good enough to give me permission to grant the necessary license for a maximum working pressure of 175 lb. per square inch, as boilers of this description, in my opinion, are capable of the load imposed.

4. I may add that my calculations were taken from Hutton's *Engineer's Hand Book*, page 167, formula 5, which reads thus: If the furnace is fitted with two Adamson's rings, then the pressure may be calculated from $\frac{11,000 \times .625}{39} = 128 \text{ lb. per square inch.}$ *Fort St. George Gazette*, dated 26th January 1897, page 5, rule 21, is as follows :—

* Note.—This should be 11,400.

(Signed) J. A. JONES.

Circular furnace with longitudinal joints welded $\frac{90,000 \times .625 \times .625}{(27 - 1\frac{1}{2} + 1) \times 39} = \text{working pressure of}$ 288 lb. per square inch, provided it does not exceed that found by the following formula $\frac{8,000 \times .625}{39} = 128.20 \text{ lb.}$, which is much below the pressure given by the Inspecting Engineer of London.

ORDER—No. 1018 W., dated 10th April 1897.

The proposal of the Sanitary Engineer is approved.

The following notification will be published in the *Fort St. George Gazette* :—

NOTIFICATION.

In exercise of the power conferred by section 23 of Act III of 1893, the Madras Steam Boilers and Prime Movers Act, His Excellency the Governor in Council proposes to make the following rule under the said Act. It will appear as a footnote to the second formula in rule 21 of the rules published in the *Fort St. George Gazette* of the 26th January 1897 :—

"When furnaces are fitted with two Adamson rings, the following formula may be substituted—

$$\frac{11,400 \times T}{D} = \text{Working pressure in lb. per square inch;}$$

Where T is the thickness of the plate in inches;

D outside diameter of furnace in inches;

and when furnaces are fitted with a series of Adamson rings not more than 23" apart, the formula to be used will be—

$$\frac{1,000 \times (T - 2)}{D} = \text{Working pressure in lb. on the square inch;}$$

Where T = thickness in sixteenths of an inch;

D = outside diameter of furnace in inches."

The Government will consider any suggestions made in respect of this rule, which may be received on or before the 15th May 1897.

(True Extract.)

For sent
Under Secretary to Government.

To the Superintendent, Government Press.
" Sanitary Engineer to Government.
" Local and Municipal Department.

Exd. C. Rajagopal Chetty.

When given for copying
When copied 18/5/1895
When examined 18/5/1895
When signed 18/5/1895

READ AGAIN G.O., No. 189 DATED

CURRENT No.

ENCLOSURES TO O. No.

ORDER OF GOVERNMENT

A A A A A A A

LETTER OF GOVERNMENT

STATEMENT WITH QUITO

PAPERS NOT FILED UP, BEING MEANT FOR DESPATCH
IN ORIGINAL

N.B.—
A = Copy in full.
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