

STANDARD FORM

For Reporting Results of Low-Pressure Steam-Heating Boiler Tests

RESULTS

Of a Test on a Low-Pressure Boiler

DATE OF TEST.....
 CONDUCTED AT.....
 DIRECTOR OF TEST..... (signature)
 MANUFACTURER OF BOILER.....
 OWNER OF BOILER.....
 SIZE OF BOILER.....
 TYPE OF BOILER.....

GENERAL PARTICULARS OF BOILER AND FUEL

BOILER	
Type	.....
Made by	.....
Length of Grate (or Diameter)	 in.
Width of Grate	 in.
Fuel Capacity (Greatest Possible Volume)	 cu. ft.
Maximum Fuel Depth (Greatest Possible Depth of Fuel)	 in.
Fuel Capacity Normal	 cu. ft.
Fuel Depth Normal	 in.
Average Distance from Top of Normal Fuel Charge to Crown Sheet	 in.
Total Furnace Volume, Grate to Crown Sheet and Bridge Wall	 cu. ft.
Total Combustion Space Beyond Bridge Wall	 cu. ft.
Water Capacity (To Water Line)	 lb.
Height of Water Line	 in.
Steam Connections Used	{ Number..... Size.....
Kind of Insulation	 in.
Thickness of Insulation	 in.
Detailed Description of Boiler	.....

SMOKE PIPE AND CHIMNEY

Area of Smoke Pipe.....	sq. in.
Length of Smoke Pipe (Boiler to Chimney).....	in.
Number and Kind of Bends in Smoke Pipe.....	
Chimney, Height above Grate.....	ft.
Chimney, Area at Bottom.....	sq. ft.
Chimney, Area at Top.....	sq. ft.

FUEL

Name _____
Size _____

PROXIMATE ANALYSIS		As Fired	Moisture Free
Moisture.....	per cent	.....	.....
Volatile Matter.....	per cent	.....	.....
Fixed Carbon.....	per cent	.....	.....
Ash.....	per cent	.....	.....

ULTIMATE ANALYSIS		As Fired	Moisture Free
Carbon.....	per cent	.....	.....
Hydrogen.....	per cent	.....	.....
Oxygen.....	per cent	.....	.....
Nitrogen.....	per cent	.....	.....
Sulphur.....	per cent	.....	.....
Ash.....	per cent	.....	.....

These forms may be obtained on request at the office of the Secretary of the AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS, 29 West 39th Street, New York City, at nominal cost.

HEAT VALUE (GROSS)

B.t.u. per lb. as fired.....
B.t.u. per lb. moisture free.....
B.t.u. per lb. moisture and ash free.....

CHARACTER OF FUEL

(State whether coking or free-burning, clinker troubles, etc.)

METHOD OF FIRING

PRINCIPAL RESULTS OF TEST

Heat recovered at the boiler outlet per hour.....	1000 B.t.u.
Maker's rating (sq. ft. radiation $\times$ 240).....	1000 B.t.u. per hr.
Percentage of maker's rating developed.....	per cent
Mean interval between charging fuel.....	hours
Mean interval between attention of any kind to the fire, including charging.....	hours
Overall thermal efficiency.....	per cent

DETAILED RESULTS OF TEST

(For full particulars of boiler and fuel see "general particulars" ante)

GENERAL INFORMATION

1. Date of Test.....
2. Number of Test.....
3. Location of Boiler.....
4. Maker of Boiler and Type.....
5. Owner of Plant.....
6. Test Conducted by.....
7. Duration of Test..... hr.
8. Manufacturer's Rating of Boiler..... sq. ft. radiation¹
9. Grate Area²..... sq. ft.
10. Barometric Pressure..... in. of mercury

FUEL

- | | | |
|-----|---|----------------|
| 11. | Heat value, as fired..... | B.t.u. per lb. |
| 12. | Number of Times Fuel Charged during Test..... | |
| 13. | Intervals between Charging, hrs. Longest Shortest Average..... | |
| 14. | Intervals between Attention of any Kind to the Fire, including firing, hr. Longest Shortest Average..... | |
| 15. | Average Fired per Charge ^a | lb. |
| 16. | Depth on Grate at Start of Test.....
(After Firing)..... | in. |
| 17. | Depth on Grate at Finish of Test..... | in. |
| 18. | Weight as Fired during Test ^a | lb. |
| 19. | Weight as Fired per Hour ^a | lb. |
| 20. | Moisture in Fuel..... | per cent |
| 21. | Weight Fired per Hour less Moisture: ^a | |
| | $\frac{100 - \text{item 20}}{100} \times \text{item 19}.....$ | lb. |

ASH AND REFUSE

- | | |
|---|-----|
| 22. Weight of Ash and Refuse Removed from Grate..... | lb. |
| 23. Weight of Ash and Refuse Removed from Ashpit..... | lb. |
| 24. Total Weight of Ash and Refuse Removed ⁴
(item 22 + item 23)..... | lb. |

¹One sq. ft. radiation to be assumed equal to 240 B.t.u. per hr.
²If the grate have an unusual shape, method of computing area must be stated under "Remarks."
³When the New Fire Method is used the equivalent fuel charged shall be given throughout. The method of obtaining this is shown at the end of this table.
⁴To include ash content of residual fire when New Fire Method is used.