

AMERICAN SOCIETY of HEATING and VENTILATING ENGINEERS GUIDE, 1928

25. Total Ash and Refuse, Percentage of Fuel as Fired.....
 26. Combustible in Ash and Refuse.....per cent

TEMPERATURE

27. Steam.....deg. fahr.
 28. Feed Water.....deg. fahr.
 29. Gases Leaving Boiler.....deg. fahr.
 30. Boiler Room.....deg. fahr.
 31. Outside Air.....deg. fahr.

DRAFT INTENSITY

32. In Smokehood.....in. water
 33. Over Fire.....in. water
 34. In Ashpit.....in. water

OUTPUT

35. Equivalent evaporation from and at 212 deg. fahr. per hr. of test.....lb.
 36. Equivalent evaporation from and at 212 deg. fahr. per lb. of dry coal fired.....lb.
 37. Heat Recovered at the Outlet per hour (item 35 $\times$ 0.97).....1000 B.t.u.

STEAM AND WATER

38. Steam pressure (gage).....lb. per sq. in.
 39. Total Water Fed to Boiler during Test.....lb.
 40. Priming: Total Water Removed from Separator,
 Per Cent of Total Feed Water.....per cent

HEAT BALANCE

- | | Per lb.
fuel as fired | Per cent heat
in fuel fired |
|---|--------------------------|--------------------------------|
| 41.* Heat to steam leaving outlet (and thermal efficiency boiler, furnace and grate)..... | | |
| 42. Heat lost by hot flue gases, exclusive of steam..... | | |
| 43. Heat lost by not burning carbon monoxide..... | | |
| 44. Heat lost by steam in flue gas..... | | |
| 45. Heat lost by combustible in ash and refuse..... | | |
| 46. Heat lost by radiation..... | | |
| 47. Undetermined losses and errors..... | | |
| 48. Total, items 41, 42, 43, 44, 45, 46, 47 and calorific value of dry fuel..... | | 100 |

Additional items, for use only with New Fire Method of starting

FUEL USED

49. Weight of wood for kindling.....lb.
 50. Heat value of wood.....B.t.u. per lb.
 51. Weight of residual fire.....lb.
 52. Heat value of residual fire.....B.t.u. per lb.
 53. Fuel value of wood (item 49 $\times$ $\frac{\text{item 50}}{\text{item 11}}$).....lb.
 54. Total fuel fired during test (exclusive of wood).....lb.
 55. Total equivalent fuel charged during test (item 53 + item 54).....lb.
 56. Fuel value of residual fire (item 51 $\times$ $\frac{\text{item 52}}{\text{item 11}}$).....lb.
 57. Equivalent fuel used during test (item 55 - item 56, this value to be used for item 18).....lb.

ASH AND REFUSE

58. Ash in residual fire (by analysis).....per cent
 59. Total ash content of residual fire:
 (item 51 $\times$ $\frac{\text{item 58}}{100}$).....lb.

*Item 41. Heat to "steam," includes the heat used to raise the water removed from the separator from the feed water temperature to the steam temperature.

CHAPTER VIII—CODE FOR TESTING STEAM HEATING BOILERS

60. Total ash and refuse removed from ashpit.....lb.
 61. Equivalent ash and refuse removed from ashpit (item 59 + item 60, this is the value to be used for item 23).....lb.

LOG SHEET NO. 1

GENERAL SHEET

Test of.....boiler with.....coal

Date.....Test No.....

Time.....General Notes

(Here will be recorded the method and times of starting and stopping, the method of firing, the difficulties encountered with ash and clinker, the times of cleaning, slicing and raking the fire, the caking and other properties of the coal, the manipulation of the dampers, etc.)