

Heat Balance Sheet Per Kg of coal fired.

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Heat supplied (KJ)	%	Heat expenditure (KJ)	%
Gross heat supplied.		a.) Heat utilized in steam Engine b.) Heat carried away by fly Gases. c.) Heat utilized in evaporating and super heating the moisture in fuel and water vapour formed due to burning of hydrogen. d.) Heat lost due to incomplete combustion --- e.) Heat carried away by excess air --- f.) Heat carried away by Carbon in Ash --- g.) Heat unaccounted for such as radiation and error etc.	
Total.	100	Total	100

Q4: what are boiler accessories and mountings?

Ans: Boiler mountings: - Boiler mountings are those fittings which are primarily intended for the safety of boiler and for complete control of the process of steam generation.

1. Two water level indicator
2. Fusible Plug.
3. Steam stop valve
4. Feed check valve
5. Blow off cock
6. Two safety valve
7. Pressure Gauge
8. man and mud hole.

Boiler Accessories: -

These are the appliances which are installed to increase the efficiency of the steam power plant and to help in the proper working of boiler unit.

1. Feed Pump.
2. Steam injector.
3. Economiser and feed heaters.
4. Super heater.
5. Air preheater.

Q5: what do you understand by efficiency of a boiler and equivalent evaporation?

Ans: Factor of Evaporation: It is the quantity which when multiplied by the amount of steam generated at a given Temp. from water at given temp. gives the equivalent evaporation from and at 100°C.

F = factor of evaporation.

The equivalent evaporation from at 100°C.

$$= \text{actual evaporation} \times F$$

$$= \text{actual evaporation} \times \left(\frac{h - hf_1}{2258} \right)$$

$$F = \frac{h - hf_1}{2258}$$