

⊗ Difference between Mountings and Accessories?

Mountings

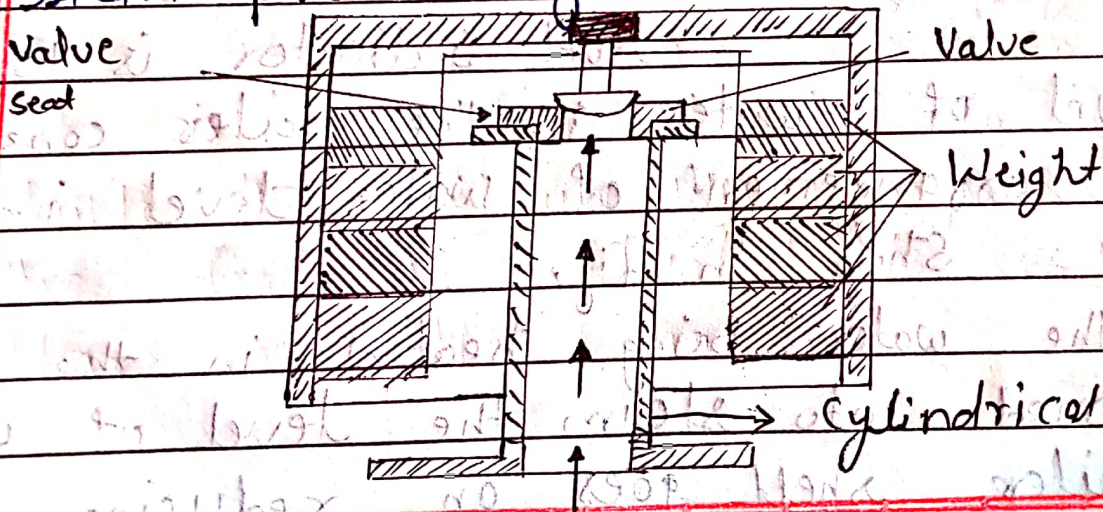
- (i) Devices which are used for the safety and operation of boiler are known as mountings.
- (ii) These are generally mounted on the surface of boiler.
- (iii) Control fluid parameters at the inside of the boiler shell.
- (iv) These are essential part of a boiler, without which boiler operation is impossible.
- (v) Example: Water level indicator, pressure gauge, safety valve.

Accessories

- (i) Devices which are used to improve the efficiency of boiler are known as accessories.
- (ii) These are integral part of boiler, but not mounted on it.
- (iii) Control fluid parameters at outside of boiler shell.
- (iv) These are not essential part of the boiler can operate through a lower efficiency.
- (v) Example: Superheaters, economizer, air preheater.

② Safety Valves :-

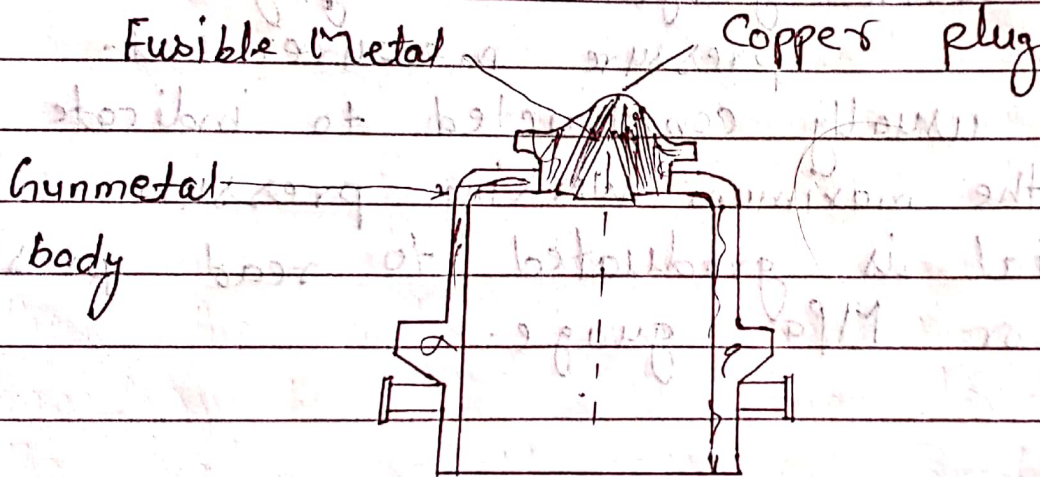
- (i) Its function is to prevent the system pressure from exceeding a limiting maximum pressure value.
- (ii) Safety valve should operate automatically by releasing excess steam and bring pressure down within safe limits.
- (iii) These are different types such as dead weight safety valve, lever safety valve, spring loaded safety valve etc.
- (iv) It has a large vertical pipe on the top of which a valve seat is fixed. Valve rests upon this valve seat.
- (v) When the pressure of steam exceeds the total weight of valve, it is lifted and fall back as steam pressure gets reduced.



Dead Weight Safety Valve's Signature.....

③ Fusible Plug:-

- (i) Fusible plug has gun metal body.
- (ii) function of a fusible plug is to protect the boiler against the damage due to overheating at low water level.
- (iii) Under normal conditions when the water level in the boiler shell is normal, the fusible plug is fully submerged under water. In this case, the heat the fusible plug conducted to water which keeps the fusible metal at an almost constant temperature below its melting point.



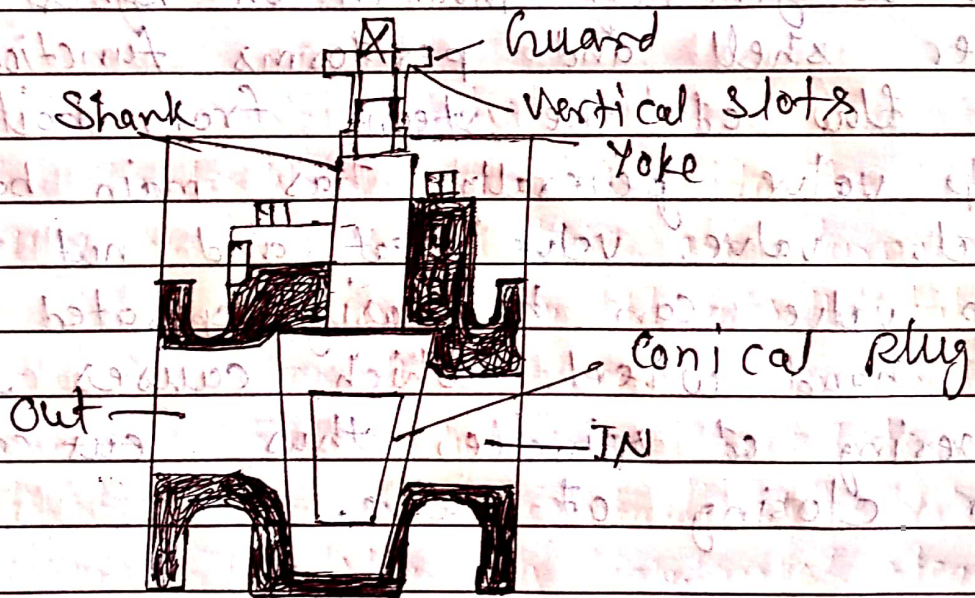
Fusible plug

Teacher's Signature.....

⑦ Blow off Cock :- ① Its valve fitted on the boiler shell directly or a short branch pipe at the lowest part of water space.

(ii) It is used for periodical cleaning by discharging water and sediments from bottom.

(iii) Blow off cock also helps in regulating the salt concentration as frequent draining helps in throwing out the salt deposited.



④ Feed Check Valve :- (i) It is a non-return valve at the end of delivery pipe from feed water pump.

(ii) This may be fitted on the side of boiler just below the water level or to the top level of the water in boiler.

(iii) The function of feed check valve is to allow the supply of water to the boiler at high pressure continuously and to prevent the back flow of water from the pump pressure in less than boiler pressure or when pump fails.

⑤ Stop Valve :-

