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SAQ 1 Compare flywheel with governor

FLYWHEEL

It is a heavy rotating wheel that reduces the jerk due to unavoidable fluctions of speed.

While governor is a speed controller device that controls speed variations caused due to varying load.

flywheel runs long as the engineesrunning. While governor runs when the running doesn't run at its mean speed.

Flywheel has no influence over the mean speed of engine. While governor does no influence over the cyclic function in speed.

Flywheel is not required to use flywheels in all engines while governor is required in all engines.

Flywheel is relatively a heavy mechanical device with large moment of inertia. It's a light mechanical device with relatively small moment of inertia.

② What type of control is the governor

Ans Mechanical feed back control system.

③ Compare centrifugal governors with inertia governors:

→ Only centrifugal force controls the centrifugal governor while both centrifugal and inertia forces control the inertia governor.

→ The revolving parts of the centrifugal governor are easier to balance than that of the inertial governor.

→ The sensitivity of the inertia governor is greater than that of the centrifugal governor.

→ The response of the centrifugal governor is slower than that of the inertia governor.

SAQ 2

What is the watt governor rarely used.

⇒ The watt governor is rarely used because it is limited to only vertical position applications and its sensitivity decrease with speed increase.

SAQ 3

In which respect is the rotor governor better than the watt governor?

⇒ The rotor is more sensitive at higher speed

than the watt governor and the porter governor can carry dead weight unlike the watt governor.

SAQ 4

For IC engines, what type of governor will you prefer. Dead weight type or spring controlled type? Give response.

⇒ A dead weight/gravity controlled governor is preffered in IC engines as the principle of engine operation is centrifugation.