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SAC 1

1 Compare flywheel with governor

a) The flywheel is a heavy rotating wheel that reduces the jerks due to unavoidable speed fluctuations while a governor is a speed controlling device that controls speed variations caused due to varying load.

b) A flywheel runs as long as the engine is running while the governor runs when the engine doesn't run at its mean speed.

c) Flywheels have no influence over the mean speed of the engine while the governor has no influence on the cyclic fluctuations in speed.

d) Flywheels are heavy with a large moment of inertia while governors are light with relatively small ^{moment} ~~amount~~ of inertia.

2. Which type of control is the governor system?
a system.

ing load.

involving device that controls speed variations

(b) A flywheel runs as long as the engine is running while the governor runs when the engine doesn't run at its mean speed.

(c) Flywheels have no influence over the mean speed of the engine while the governor has no influence on the cyclic fluctuations in speed.

(d) Flywheels are heavy with a large moment of inertia while governors are light with relatively small amount of inertia.

2. Which type of control is the governor system?
Mechanical Feedback control system.

3. Compare centrifugal governors with inertia governors

(a) The response of the centrifugal governors is slower than that of the inertia governor.

(b) Only centrifugal force controls the centrifugal governor while both centrifugal and inertia forces control the inertia governor.

(c) The sensitivity of the inertia governor is greater than that of the centrifugal governor.

(d) The revolving parts of the centrifugal governor are easier to balance than those of the inertia governor.

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SAQ 2

Why is the Watt governor rarely used?

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

SAQ 3

In which respect is the Porter governor better than the Watt governor?

The Porter is more sensitive ~~than~~ than the Watt governor at higher speeds and the Porter governor can carry 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 reason.

The spring controlled governor is preferable because of flexibility of equilibrium speed.