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MECHANICS ASSIGNMENT MEE 312 ASS

QUESTION 1

) Compare Flywheel with Governor

a) The flywheel is a heavy rotating wheel that reduces the jerk 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 a GOVERNOR run when the engine doesnt run at its mean speed.

c) Flywheels have no influence over the mean speed of the engine while GOVERNOR has no influence on the ~~cyclic~~ cyclic fluctuations in sp

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

2) WHICH TYPE OF CONTROL THE GOVERNOR SYSTEM IS?

- Mechanical Feedback Control System

) Compare Centrifugal Governors with Inertia Governors

) The response of the centrifugal governor is slower than that of nertia governor.

Adesoyoju Oredunna

b) Only centrifugal force controls the centrifugal governor while both 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 rendering parts of the centrifugal governor are easier to balance than that of the inertia governor.

SAQ 2

1) 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?

Answer

The Porter is more sensitive at higher speeds than the Watt governor and the porter governor can carry dead weight unlike the Watt governor

Q 4

In IC engines, what type of governor will you prefer, Dead weight type or spring controlled type?

Answer

Dead weight/gravity controlled governor is preferred in IC engines as the best suiples of engine operations in centrifugation.