Theory of Machines



Flywheel Apparatus (EDC-TM-102)

EXPERIMENTAL DATA:

- To demonstrate the relationship between torque and angular acceleration i.e the second law of motion
- To compare experimental and calculated moments of inertia of a disc
- To demonstrate that a flywheel can be used to store energy



DESCRIPTION:

This wall-mounted apparatus comprises of a steel disc of Ø300mm diameter and 40mm thickness. This disc is mounted on a shaft running in precision bearings housed in a substantial wall bracket.

An indented mark on the flywheel helps counting the revolution which can be timed with a supplied digital stopwatch. Load hanger, weights and cord is supplied to perform the experiments. Experimental capabilities can be verified by noting the measuring the time of rotations at specified weights.

TECHNICAL DATA:

- Steel Flywheel
- Flywheel: Ø300 x 40mm thick
- Digital Stopwatch

WEIGHT AND DIMENSIONS:

- L x W x H (mm) : 400 x 300 x 320
- Weight (approx) : 30 kg

RELATED LAWS:

- Newton's Second Law of Motion
- Rotational Mass
- Rotational Acceleration
- Moment of Inertia
- Angular Acceleration
- Torque
- Couple
- Rotating Machinery

SCOPE OF DELIVERY:

- 1 x EDC-TM-102
- 1 x Stop Watch
- 1 x Load Hanger
- 1 x Weight Set
- 1 x Tape Measure
- 1 x Instructional Manual