

Product Name :
Comprehensive Flywheel Apparatus

Product Code :
ELABBTM0011



Description :

Comprehensive Flywheel Apparatus

Technical Specification :

Comprehensive Flywheel Apparatus Features Low cost, effective teaching Self-contained Wall mounted Demonstrates: a) Second Law of Motion b) Energy storage Three year warranty Range of Experiments To verify the second law of motion applied to a flywheel, ie the relationship between torque and angular accerleration To compare experimental and calculated moments of inertia of a disc To study the energy transformations and to demonstrate that a flywheel can be used to store energy To observe the effect of a change in moment of inertia Description A steel disc 250 mm diameter and 30 mm thick is mounted on a shaft running in needle roller bearings housed on a substantial wall bracket. A mark on the flywheel and a pointer on the bracket enable the revolutions to be counted and timed with the stop watch supplied. A cord, load hanger and set of weights are provided. The moment of inertia can be altered by the addition of a disc and a ring of similar masses. A vibrating arm provides an accurate means of measuring acceleration, drawing a simple harmonic curve at a frequency of 5Hz onto a strip of paper attached to the flywheel periphery. This is actuated automatically as the flywheel starts to rotate. This equipment is part of a range designed to both demonstrate and experimentally confirm basic engineering principles. Great care has been given to each item so as to provide wide experimental scope without unduly complicating or compromising the design. Each piece of apparatus is self-contained and compact. Setting up time is minimal, and all measurements are made with the simplest possible instrumentation, so that the student involvement is purely with the engineering principles being taught. A complete instruction manual is provided describing the apparatus, its application, experimental procedure and typical test results.



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