

Product Name :
MOTORISED GYROSCOPE

Product Code :
Theory of Machine0004



Description :

MOTORISED GYROSCOPE

Technical Specification :

The unit's of a motorized gyroscope consist of a disc rotor mounted on a horizontal shaft rotating in the ball bearing of one frame. The rotor shaft is coupled to a motor mounted on a turning frame having bearings in the yoke frame which is free to rotate about vertical axis. Thus a disc can be rotated about three perpendicular axes. Angular scale and a pointer fitted to frame help to measure precision rate.

FEATURES

- Demonstrates relationship between applied torque and the rate and direction of rotation and precision.
- Gyroscopic couple easily varied by an assortment of weights.
- Precisely balanced rotor.
- Completely portable and suitable for classroom demonstration.
- Useful to verify the relationship $T=I\omega\dot{P}$.

RANGE OF EXPERIMENTS

- Observation of gyroscopic behaviour (two laws and stability).
- Experimental justification of the equation $T=I\omega\dot{P}$ for calculating the gyroscopic couple by observation and measurement of results for independent variations in applied couple (T) and precision (WP).

SPECIFICATION

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- Disc rotor - 30cm dia.10m.m. thick.
 - Drive - A.C. /D.C. single phase motor.
 - Overall size - 30 cm dia. Base, 50 cm. height.
 - Weight - 30 Kg approx.

SERVICE REQUIRED

- Single Phase 15 amp Electric Connection.
- Tachometer for speed measurement.
- Suitable bench area to mount the instrument.

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