

# **Cam Analysis Apparatus**

(EDC-TM-116)

## **EXPERIMENTAL DATA:**

- Impact of moving mass on the motion of CAM member.
- Effect of return-spring toughness and preload on the motion of cam plunger.
- Elevation curves in non-matching engaging member.
- Elevation curve in sprung-engaging member.
- Regulate the limit speed and compare with theory.
- Comparison of the elevation curves of different cam shapes.
- Comparison of elevation curves with theory.



### **DESCRIPTION:**

Cams are mechanical devices used to convert the rotation of a shaft into simple or complex reciprocating linear motion. They can be sliding or rotational pieces in a mechanical linkage.

Apparatus contains a motor driven shaft, on which different types of CAMs can be attached and analyzed. Flywheel attached with the shaft for linear moment.

Optional Software is available for Data Acquisition and Control Function.

#### **SPECIFICATIONS:**

- Transparent protective cover for safety.
- Speed sensor.
- Motor with variable speed.
- Investigation of CAM Mechanism.
- CAM Members:
  - o Tangent.
  - o Hollow.
  - o 2 circular CAM with different head radius.

# **TECHNICAL DATA:**

- Masses:
  - o 200g.
  - o Plunger 530g.
  - o Flat receiver 93g.
  - o Rolling receiver 20g.
- Spring stiffness:
  - o Hard, Medium, soft.
- CAM member:
  - o Stroke 15mm.
  - o Opening angle: 140.
- 230V, 50Hz, 1 phase.

# **DIMENSIONS AND WEIGHT:**

- L x W x H (mm): 800 X 500 X 500 approx.
- Weight: 70 kg approx.

# **SCOPE OF DELIVERY:**

- 1 x EDC-TM-116.
- 1 x Instructional Manual.

