

## CAM ANALYSIS APPARATUS (EE-1583)

Apparatus is a motorized unit consisting of a camshaft driven by a variable speed motor. The shaft runs in a double bearing. The free end of the camshaft has a facility to mount the cam easily.

The follower is properly guided and the type of follower can be changed according to the cam under test. Graduated circular protractor is fitted co-axial with the shaft. And a Dial Gauge fitted on the follower Shaft is used to note the follower displacement for the angle of cam rotation. A spring is used to provide controlling force to the follower system. Weights on the follower shaft can be adjusted as per the requirement. An arrangement is provided to regulate the speed. The apparatus is very useful for testing the cam performance for jump phenomenon during operation. It is useful for testing various cam & follower pairs. Three cams and three followers will be supplied with the apparatus. These are already hardened to reduce the wear.

### SCOPE OF EXPERIMENTATIONS:

With the help of combination of provided cams and followers following experiments can be conducted:

- To plot the n-q (Follower displacement Vs Angle of rotation) curves for different cam follower pairs
- To observe the follower bounce at different load condition.

### UTILITIES REQUIRED:

- Electricity 0.5 kW, 220V, Single Phase
- Stroboscope (Optional).

### TECHNICAL DETAILS:

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|----------------------|---|--|
| ➤ Cam Shaft          | : | Material M.S.  |
| ➤ Cams               | : | Tangent, Eccentric, Circular Arc type.                 |
| ➤ Followers          | : | Roller, Knife edge, Mushroom                           |
| ➤ Compression Spring | : | Provided   |
| ➤ Weights            | : | 1Kg  |
| ➤ Motor              | : | Variable speed, ½HP., 0-1500 RPM with speed controller |
| ➤ Dial Gauge         | : | Standard Make  |

