



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE GWALIOR

Department of Mechanical Engineering

REPORT OF SKILL BASED MINI PROJECT

Theory of Machines - 2 (120411)

Title of Project: DEMONSTRATION MODEL OF CAM & FOLLOWER APPARATUS

Introduction: A cam is a rotating element that gives oscillating or reciprocating motion to the follower which is another element of this machine by direct contact. This part is mainly used to transform the motion from rotary into linear to another part. It is a part of a machine which can be a rotating wheel (an electric wheel) or a shaft that strikes a lever's various points at its circular path.

A follower is a rotating or an oscillating element of a machine that follows the motion of cam by direct contact. If a cam moves in reciprocating motion the follower moves in vertically respect to the axis of the cam.

Description of Model



The setup consists of three disc or plate type cams, which are rotating discs with an irregular profile, two flat faced followers and one mushroom follower, which are linear devices that slides along the surfaces of the cams. The cams are fixed on a rod which is used for the rotation.

Applications of Model

This model can be used to explain the working and demonstration of Cam & Follower.

Applications of Cam and Follower: Operating the inlet and exhaust valves of internal combustion engines; Used in Automatic attachment of machineries, paper cutting machines; Used in Spinning and weaving textile machineries; Used in Diesel Fuel Pumps; Used in Feed mechanism of automatic lathes etc.

What I Learned Through Project:

I learned that a cam and follower mechanism is a type of mechanical linkage used to convert rotary motion into linear motion. It consists of a rotating cam and a follower that moves along the surface of the cam in a linear motion. The shape of the cam determines the motion of the follower, and this mechanism is commonly used in a variety of applications such as engines and machine tools.

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