MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE GWALIOR

Department of Mechanical Engineering

REPORT OF SKILL BASED MINI PROJECT

Theory of Machine 2 (120411)

Title of Project: Cam and Follower Mechanism

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

This setup consists of three cams, which are rotating discs with an irregular shape, one mushroom follower and two flat followers, which are linear devices that slides along the surface of the cam.

Applications of Model

Operating the inlet and exhaust valves of internal combustion engines, Used in Automatic attachment of machineries, paper cutting machines, in Spinning and weaving textile machineries, Feed mechanism of automatic lathes, used in Diesel Fuel Pumps, in feed mechanism of automatic lathe, 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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