MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE GWALIOR

Department of Mechanical Engineering

REPORT OF SKILL BASED MINI PROJECT

Theory of Machine II (120313)

Title of Project: CONVEYOR BELT USING GENEVA MECHANISM

Introduction:

The Geneva Mechanism is a type of gear mechanism that converts a continuous rotary movement into intermittent rotary motion. The rotating drive link is usually equipped with a pin that reaches into a slot located in the other wheel that advances it by one step at a time.

Description of Model

This model is a modified version of the convetional Geneva Mechanism. Originally it was designed to have a rotating wheel drive which was changed to a rotating drive link by us. The rotating link is equipped with apin which fits in the slot we made by cutting the square metal plate which inturn converts the originally continuous rotary motion into intermittent rotary motion.

Applications of Model

This model can be used as a lab structure for practical purposes to teach students of different background about the working and uses of the geneva mechanism. As the model is a working conveyor belt, it can also be modified to be used as a coveyor for experimental purposes.

What We Learned Through Project:

While working on this project, we learned to calculate various values used in production of the geneva systems. We build our project based on these calculations as well. We also learnes various application of the geneva mechanism like the pen change mechanism in plotters, automated sampling devices, banknote counting machine, in CNC machines, drills and turret lathes.

Submitted by

Satyam Tripathi

0901ME201115

3rd Year - 5th Semester

Mechanical Engineering

Head
Deptt. of Mechanical Engineering
Madhav Institute of Tech. & Science
Gwalior - 05 (India)

Submitted To
Prof. Utkarsh Srivastava
Assistant Professor