



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE GWALIOR

Department of Mechanical Engineering

REPORT OF SKILL BASED MINI PROJECT

Design of Machine Elements (120412)

Title of Project: KNUCKLE JOINT

Introduction: A knuckle joint is a mechanical joint used to connect two rods which are under a tensile load, when there is a requirement of small amount of flexibility, or angular moment is necessary. There is always axial or linear line of action of load.

Here we have tried to make a 3d wooden model of knuckle joint & discuss it's different features & applications.

Description of Model

Name: 180 degree knuckle joint

Material used: wood



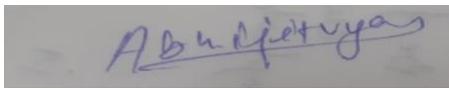
Applications of Model

1. Tie rod joint of roof truss.
2. Tension link in bridge structure.
3. Link of roller chain.
4. Tie rod joint of jib crane.
5. The knuckle joint is also used in tractor.
6. Connecting rods between locomotive wheels.

What I Learned Through Project:

The given project was a great opportunity for me to understand the knuckle joint in a thorough manner. We were able to have the opportunity to ponder upon its application & different features. We also get the on-hand experience to brush up our workshop skill & to learn to make the wooden model of knuckle joint.

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