

EPICYCLIC GEAR TRAIN APPARATUS (EE-1592)

Gear Train is any combination of gear wheels by which motion is transmitted from one shaft to another shaft. In Epicyclic gear trains, the axes of shafts on which the gears are mounted may move relative to a fixed axis.

It is a motorized unit consisting of a SUN gear mounted on input shaft. Two plane gear meshes with the annular gear. These planet gears are mounted on a common arm to which output shaft is fitted. Loading arrangement is provided for loading the system and to measure holding torque.

SCOPE OF EXPERIMENTATIONS:

- To measure epicyclic gear ratio between input shaft and output shaft. (Actual and Theoretical).
- To measure input torque, holding torque and output torque.

UTILITIES REQUIRED:

- Power Supply : 220VAC, Single Phase.
- Floor Area : 1.5 x 2m

TECHNICAL DETAILS:

- Internal Type Epicyclic Gear Train : A Compact gear train (industrial)
- Motor : Variable speed DC Motor, 1HP.
- Speed Control Unit : Thyristor controlled DC Drive for varying the speed of DC motor.
Rope Brake arrangement to measure output torque and holding torque.
- RPM Measurement : Digital RPM Indicator with proximity switch

