GEARLESS TRANSMISSION USING ANGULAR SLIDER MECHANISM

ABSTRACT

In this project “GEARLESS TRANSMISSION USING ANGULAR SLIDER MECHANISM" being compact and portable equipment, which is skilful and is having practice in transmitting power at right angle without any gears being manufactured. The Elbow Mechanism transmits the input power towards the output side such a way that the angular forces produced in the slacks are transmitted with the help of rods which takes up the input power and the right angle drive is transferred towards the output slack and rod assembly. Hence very little friction plays while the power is being transmitted. Hunting and back lash errors are absent. Therefore, it is appreciated that efficiency as high as 90-92% are possible in gear less transmission mechanism. So, instead of using gears, this technology elegantly converts rotational motion using a set of cylindrical bars, bent to 90°. Both the input shaft and the housing have rotational axes. The rotational axis of the input shaft is disposed at an angle of 90 degree with respect to the rotational axis of the housing. As a result, rotation of the input shaft results in a processional motion of the axis of the bent link. The rotary and reciprocating motion of bent link transmit rotation of prime mover to 90 degree without any gear system to an output shaft. Then the output shaft is connected to the "ANGULAR SLIDER MECHANISM" which will convert rotational motion into reciprocating motion so, we had made a cutting device with the help of hacksaw blade, which is welded with scotch mechanism.