KCTD-101AM
1 CYLINDER 4 STROKE PETROL ENGINE TEST RIG
With Motoring Test (Rope Brake Dynamometer)

DESCRIPTION :

IC engines are widely used in automobile, domestic and industrial sector. They are classified according to cycle, number of cylinders, arrangement of cylinders, fuel used, type of ignition, valve arrangement, cooling system. Test rigs are used to find out the performance of an IC engine. It consists of an IC Engine, dynamometer, fuel measuring, air intake measuring and various other arrangements.

EXPERIMENTATION:

- To determine specific fuel consumption
- To determine Brake Horse Power
- To determine Brake Thermal Efficiency

UTILITIES REQUIRED :

- Petrol : 5 liters
- Water Supply: Continuous water flow of 10LPM at ½ kg/cm^2 pressure if Calorimeter is ordered.
- Power Supply : 230V AC, 5 Amp socket with earth
- Floor Space : 2m x 1 m

TECHNICAL DETAILS :

Type of Engine	:	Single cylinder, four stroke, air cooled, Hand start, self lubricating, petrol engine, Honda make (Model GX-200)
Type of Loading	:	Rope Brake Dynamometer
RPM measurement	:	RPM Indicator with Proximity sensor.
Fuel measuring system	:	Fuel measuring system consists of a fuel tank, a burette and a three way cock
Air Intake Measuring System	:	Air tank fitted with orifice and water manometer.
Exhaust Gas Calorimeter	:	An Exhaust Gas Calorimeter, made of Stainless Steel will be provided for calculating heat carried away by exhaust gases. The body of the calorimeter is insulated with ceramic wool and cladded by Aluminum foil. Digital Temperature indicator with Temperature sensors at appropriate position will be provided

- Motoring test facility will be provided with AC motor.
- An ENGLISH instruction manual consisting of experimental procedures, block diagram etc. will be provided along with the Apparatus
- The whole set-up is well designed and arranged on a rigid structure painted with industrial PU Paint.

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