

SINGLE CYLINDER FOUR STROKE DIESEL ENGINE TEST RIG (EE-1615)

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.

SCOPE OF EXPERIMENTS:

- To determine specific fuel consumption
- To determine Brake Horse Power
- To determine Brake Thermal Efficiency
- To determine volumetric efficiency measurement.

TECHNICAL DETAILS:

- **Type of Engine**
 - Single cylinder, four stroke, vertical water cooled, crank start, diesel engine
- Type of Loading
 - **Rope Brake Dynamometer**
 - Rope Brake arrangement with the brake drum fitted on the engine shaft and provided with cooling water arrangement and spring balance in Kg units.
- **Fuel measuring system**
 - Fuel measuring system consists of a fuel tank, a burette and a three way cock arrangement
- **Air intake measuring system**
 - Air tank fitted with orifice and water manometer.
- Measurement of Heat carried
 - It consists of inlet outlet piping with flow control valve, water away by Cooling water meter
 - RTD PT-100 are provided to measure the inlet outlet temperature of water.
- The whole setup is well designed and supported by a good quality painted rigid M.S.Structure.

