

Product Name : Multi Cylinder Four Stroke Petrol Engine Test Rig With Rope Brake Dynamometer	Product Code : NLAB-MECHANICALAB410002
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Description :

Multi Cylinder Four Stroke Petrol Engine Test Rig With Rope Brake Dynamometer

Technical Specification :

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. Provision for mores test is done.

EXPERIMENTATION:

To determine specific fuel consumption.

To determine Brake Horse Power.

To determine Brake Thermal Efficiency.

To determine mechanical efficiency

To determine indicated thermal efficiency

UTILITY REQUIRED

Electric Supply: Single Phase, 220 V, 10Amp.

Continuous Water Supply : 10 LPM Approx. at $\frac{1}{2}$ kg/cm²

Pressure for Engine cooling and 10 LPM at 2 kg/cm²

Fuel : 20 Ltrs. (Petrol)

Floor Area : 3m X 2m

Tachometer : For RPM measurement

Battery Unit: 12 Volt 88 Amp.

TECHNICAL DETAIL

Engine : Multi Cylinder, Four stroke, water cooled Petrol Engine

Type of Loading : Rope Brake Dynamometer

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 consist of inlet outlet piping with flow control valve, water

Away by Cooling Water meter to measure the rate of flow of cooling water Temperature Sensors are provided to measure the Temperature of Inlet & Outlet

Temperature Measurement : Digital Temperature Indicator with multi-channel switch

Temperature Sensors : RTD PT-100 type

Panel Board Arrangement : Panel Board Arrangement consisting of ignition & starting switch, a high voltage knife switch assembly for cutting off each

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