Email : sales@scilabexport.com
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Product Name :

Four Stroke Four Cylinder Petrol Engine Test Bench

Product Code :

SLE/MCE/53



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Description :

The Four Stroke Four Cylinder Petrol Engine Test Bench couples a 1054 cc, water-cooled MPFI petrol engine to a brake load unit for performance testing. Students measure torque, power, fuel consumption and overall efficiency on an engine rated63 BHP at 5500 rpm and 89 Nm at 3000 rpm. The rig stands on a welded frame on rollers, with perforated guards over hot and rotating parts.

Petrol engine test bench specifications

Parameter	Detail
Engine	Branded four-cylinder petrol engine, MPFI version; four-stroke, spark ignition
Capacity and bore ×stroke	1054 cc; 66 mm × 77 mm
Maximum power	63 BHP at 5500 rpm
Maximum torque	89 Nm at 3000 rpm
Cooling and starting	Water-cooled, closed cooling water circuit; self-start
Fuel and engine oil	Petrol; SAE 5W-30 engine oil
Electrical	Battery 12 V, 45 Ah; alternator 12 V, 45 A; mains supply 230 V, 50 Hz, single phase
Load connection	Engine fastened to the load unit; brake driven through a rotationally elastic coupling with jointed shaft
Frame and guarding	Solid welded frame on rollers with the engine flexibly mounted; perforated plates over hot surfaces and rotating parts
Product code	SLE/MCE/53
Minimum order	10 units
Dispatch	Usually within 7 to 10 working days
Manufacturer	ScienceLab (Jain Scientific Equipments Pvt Ltd), Ambala, India

Performance tests on the petrol engine bench

Full-throttle torque curve. Warm the engine, open the throttle fully and raise the brake load in steps so that the speed falls from the top of the range. At each steady speed, record torque and rpm, work out brake power and plot both against speed. Students then compare their peaks with the rated 89 Nm and 63 BHP.

Fuel consumption at part load. Hold one speed and add load in steps. At each step, time the engine as it draws a marked volume from the manual volumetric fuel gauge, using a digital stopwatch. Convert the volume to mass with the fuel density, then plot spec

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