

VINAYAKA MISSION'S RESEARCH FOUNDATION
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING



Apex Make Research Engine Test Set Up
Single Cylinder, 4 Stroke, Multifuel Vcr With Diesel and Open Ecu For
Petrol Mode

Please Follow The Below Mentioned Safety Instruction Before You Start The Experiment.

Do's

- ✓ Check The Electrical Connection Properly Before You Start The Process
- ✓ Check The Working Condition Of Eddy Current Dynamometer, Pressure Sensors, Temperature Indicator, Voltmeter, Circulating Pump And Other Electronic Accessories Of The System.
- ✓ Check The Water Flow Inside The Engine And Calorimeter.
- ✓ Check The VCR Ratio In Engine (18 Ratio For Diesel 10 Ratio Fro Petrol) Is Very Must For Engine Starting Stage.
- ✓ Check And Change The Diesel Filter After Using Bio Fuel.
- ✓ Keep Monitoring The Above Parameters Continuously With Regular Intervals.
- ✓ Engine Flow Rate Of 250 LPH And Calorimeter Flow Rate Of 100 LPH Is Constantly Maintained.
- ✓ Applying Load In The Dynamometer During The Process Is Slow And Steady.
- ✓ Check The Fuel Line And Availability Of The Fuel Of The Fuel In Tank, Opening Of The Fuel Valve, Air Lock In Fuel Line And Any Leakage In Filter And Fuel Line
- ✓ If Any Air Lock Exists It Is Necessary To Replace It Before Operation.
- ✓ Start The Engine With No Load Condition.

Don'ts

- ❖ Cannot Try To Start The Engine With Low Compression Ratio (Below 17CR)
- ❖ Don't Us Water Mixing Bio Fuels
- ❖ Don't Use Any Welding Near Engine Set Up
- ❖ Don't Place The Any Things Above Engine, Dynamometer And Engine Panel.
- ❖ Don't Switch Off Water Circulating Pump During The Running.
- ❖ Don't Close All Gate Valves During Engine Running Time.
- ❖ Don't Run The Engine Without Cooling Water.



VCR SET UP



ENGINE TEST RIG