

Thermal Power Engineering Lab

ME(EE)481

Contacts : 3L

Credits : 3

1. Study of Cut Models – Boilers IC Engines

Lanchashire Boiler
Bahcock & Willcox Boiler
Cochran Boiler
Vertical Tubular Boiler
Locomotive Boiler
4S Diesel Engine
4S Petrol Engine
2S Petrol Engine

2. Load Test on 4 Stroke Petrol Engine & Diesel Engine by Electrical Load Box.

3. Load Test on 4 Stroke Diesel Engine by Rope Brake Dynamometer.

4. Heat Balance on 4 Stroke Diesel Engine by Rope Brake Dynamometer & by Electrical Load Box.

5. Valve Timing Diagram on 4S Diesel Engine Model & 4S Petrol Engine Model.

6. To find the Calorific Value of Diesel Fuel & Coal by Bomb Calorimeter.

7. To find the Flash Point & Fire Point of Petrol & Diesel Fuel.

8. To find the Cloud Point & Pour Point of Petrol & Diesel Fuel.

9. To find Carbon Particle Percentage in Diesel Engine Exhaust Smoke by Smokemeter and trace the BHP Vs. % Carbon Curve.

10. Measurement of the Quality of Steam – Enthalpy & Dryness fraction.

11. To find out the Boiler performance – Boiler efficiency & Steam evaporation rate.

12. To visit a Thermal Power Station & study of the followings :

- a) Boiler b) Steam pipe c) Furnace
- d) Economizer e) Preheater f) Steam turbines
- g) Alternator h) Water treatment plant i) E. S. P.