

MODEL: HMT06

HMT06.xls Revision No: 05 Date: March 13, 2021

FOUR CYLINDER FOUR STROKE DIESEL ENGINE TEST RIG



FEATURES

- Compact, comprehensive, sturdy design
- Easy and versatile operation
- Choice of dynamometers

DESCRIPTION

The system is designed for students-to conduct experiments and study the performance of diesel engines. The engine and dynamometer are mounted on a bedplate. The test rig facilitates easy measurement of temperatures, fuel consumption, air consumption, brake-power and engine speed. Testing can be carried out at various loads.



INSTRUCTION MANUAL

Self -explanatory operating manuals are provided with each system. Detailed theory as well as practical exercises is also included in the manual

LIST OF EXPERIMENT

- 1. To determine Brake Power
- 2. To determine engine volumetric efficiency
- 3. To determine engine mechanical efficiency
- 4. To determine engine brake thermal efficiency
- 5. To determine engine specific fuel consumption
- 6. Complete energy balance using exhaust gas calorimeter.
- 7. Determining air/ fuel ratios

COMPONENTS

- 1. Diesel Engine
- 2. Dynamometer
- 3. Temperature Indicator
- 4. Tachometer
- 5. Fuel Consumption Measuring Unit
- 6. Air Flow Measuring Unit
- 7. Exhau<mark>st gas calorimeter</mark>
- 8. Calorimeter Cooling water flow measurement
- 9. Battery

OPTIONAL ADDITIONAL

- 1. Digital indicator for fuel consumption, volumetric type
- 2. Digital indicator for fuel consumption, gravimetric type
- 3. Digital indicator for air flow measurement
- 4. C. Engine components cut away model board
- 5. Water supply arrangement, consisting of sump tank, pump and piping. (Required if hydraulic dynamometer or Eddy Current dynamometer is selected)
- 6. Battery charger

Note: Details of attachments can be made available on request.

SERVICES REQUIRED

- 1. Water supply and drainage arrangement
- 2. Electric supply
- 3. Fuel for engine

WEIGHT

1. 450 Kg

DIMENSIONS

- Control Panel: 720 mm X 510 mm X 1830 mm (Approx)
- Engine and Dynamometer: 1600 mm X 800 mm X 900 mm (Approx)

NiYo Engineers

Unit 1B, Devgiri Industrial Estate, S. No. 17/1B Plot No. 14, Kothrud, Pune 411 029 INDIA, Tel-91 20 2546 5004, 2546 8051, 2546 7296 Telefax - 91 20 2546 8051 e-mail- sales@niyoindia.com Web: www.niyoindia.com





- (1) Since research and development is an on-going activity, the specifications mentioned herein are subject to change without notice
- (2) Photographs are indicative only

