

OSC 77FD505MTHC Automotive Engine Test Bed , Water Absorber



<Features>

- The equipment is for testing an automotive engine with computer control
- The engine is connected to a hydraulic dynamometer by double universal joints, and is supported on four legs which can be adjusted in three directions to accommodate several size engine
- Cooling the engine and the dynamometer is by a cooling tower outside the engine room
- A fuel tank with a fuel flow and an air flow measuring instruments are on a stand next to the engine
- Control of dynamometer load and engine throttle is by push buttons
- A human machine interface (HMI) unit, an input / output module, control motors and software are provided for data display, analysis, and touch screen control

<Typical tests>

- Torque vs engine speed at various throttle setting
- Engine brake horsepower and efficiency vs speed
- Specific fuel consumption
- Air / fuel ratio
- Volumetric efficiency

<Specifications>

Model	OSC 77FD 505HCMT
Dynamometer	Type : Water brake absorber, dual rotor
	Maximum Torque : over 600 N-m/3000 rpm
	Maximum power : over 300kW/5000 rpm
Engine	4 cylinder gasoline engine (reconditioned or new), displacement at least 1500cc
Cooling system	Cooling tower : Up to 100RT depending on size of engine
	Circulating pump : 2 ea
Fuel tank	35L
Sensors	Dynamometer torque and speed, fuel flow rate, air flow rate (differential pressure) and temperatures for cooling water at engine inlet and outlet, dynamometer outlet, cooling tower circulating pump inlet, exhaust gas, and ambient air
Calibration devices	Torque : An arm with calibration weights
	Fuel flow rate : A graduated cylinder and a stop watch
	Air flow rate : A water manometer for differential pressure
Computer control	Engine throttle and dynamometer load
Display	Sensor data, Input power, output power, efficiency, volumetric efficiency, specific fuel consumption
	Characteristics curve : Torque vs speed, output power vs speed
Human machine interface	Display : 262K TFT LCD, 800x600 resolution
	Input/output interface : 4 COM ports, 1 parallel port, 4 USB port, VGA port
Power supply	220V, 1Ph, 50Hz. Other power supply is available