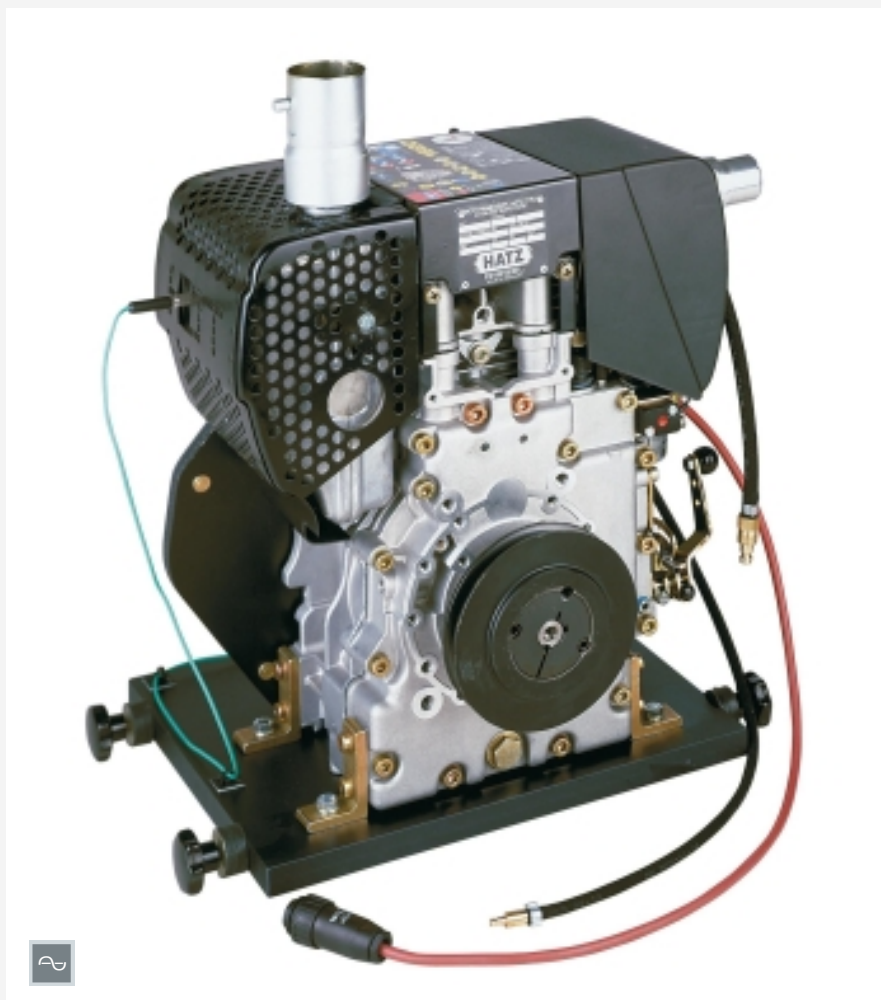


CT 151

Four-stroke diesel engine for CT 159



Learning objectives/experiments

- in conjunction with CT 159 test stand and HM 365 load unit
 - ▶ familiarisation with a four-stroke diesel engine
 - ▶ plotting of torque and power curves
 - ▶ determination of specific fuel consumption
 - ▶ determination of volumetric efficiency and lambda (fuel-air ratio)
 - ▶ determination of the frictional power of the engine

Specification

- [1] air-cooled single-cylinder four-stroke diesel engine for installation in the CT 159 test stand
- [2] engine mounted on vibration-insulated base plate
- [3] force transmission to brake via pulley
- [4] engine complete with fuel hose and exhaust gas temperature sensor
- [5] fuel hose with self-sealing quick-release coupling

Technical data

- Air-cooled single-cylinder diesel engine
- power output: 3kW at 3000min⁻¹
 - bore: 69mm
 - stroke: 62mm

V-belt: Ø 125mm

LxWxH: 430x350x530mm

Weight: approx. 38kg

Required for operation

ventilation, exhaust air (CT 159)

Scope of delivery

- 1 engine, complete with all connections and supply lines
- 1 manual

Description

- engine for installation in the CT 159 test stand
- part of the GUNT FEMLine

In conjunction with the CT 159 test stand and the HM 365 load unit, the air-cooled four-stroke diesel engine is highly suitable for use in teaching the fundamentals of engine functioning and measurement.

The engine used here is an air-cooled single-cylinder four-stroke diesel engine with direct injection. The engine is started by an electric motor mounted in the HM 365 unit. The air cooling is effected by a flywheel fan. The HM 365 load unit is coupled by way of a pulley on the drive shaft. The engine includes a sensor to measure the exhaust gas temperature. The sensor, ignition cut-off as well as air and fuel supply are connected to the CT 159 test stand.

The full load and partial load characteristic curves of the engine are plotted in experiments.

CT 151

Four-stroke diesel engine for CT 159

Required accessories

CT 159	Modular test stand for single-cylinder engines, 3kW
HM 365	Universal drive and brake unit

Optional accessories

CT 159.02	Exhaust gas analysing unit
CT 159.01	Electronic engine indicating system for CT 159
with	
CT 159.04	Pressure transducer and TDC sensor for CT 151