

CT 150

Four-stroke petrol engine for CT 159



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 simple four-stroke petrol 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 petrol engine with external carburation. 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.

Learning objectives/experiments

- in conjunction with CT 159 test stand + HM 365 load unit
 - ▶ familiarisation with a four-stroke petrol 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 petrol 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 petrol engine
- power output: 2,2kW at 3200min⁻¹
 - bore: 62mm
 - stroke: 42mm

Belt pulley: Ø 125mm

LxWxH: 450x360x380mm

Weight: approx. 22kg

Required for operation

exhaust gas routing, ventilation

Scope of delivery

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

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Required accessories

| | | |
|-----------|--------|---|
| 063.15900 | CT 159 | Modular test stand for single-cylinder engines, 2,2kW |
|-----------|--------|---|

Optional accessories

| | | |
|-----------|-----------|--|
| 063.15902 | CT 159.02 | Exhaust gas analysing unit |
| 063.15901 | CT 159.01 | Electronic engine indicating system for CT 159 |
| with | | |
| 063.15903 | CT 159.03 | Pressure transducer and TDC sensor for CT 150 / CT 152 |