

CT 100.21

Two-stroke petrol engine for CT 110



Learning objectives/experiments

- in conjunction with CT 110 test stand
 - ▶ familiarisation with a two-stroke petrol engine
 - ▶ plotting of torque and power curves
 - ▶ determination of specific fuel consumption
 - ▶ determination of volumetric efficiency and lambda (fuel-air ratio)

Specification

- [1] air-cooled single-cylinder two-stroke petrol engine for installation in the CT 110 test stand
- [2] engine mounted on base plate
- [3] force transmission to brake via elastic claw coupling
- [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 with reverse scavenging

- power output: 4.9kW at 4500min⁻¹
- compression ratio: 7.1:1
- bore: 61mm
- stroke: 54mm

LxWxH: 570x350x470mm
Weight: approx. 20kg

Scope of delivery

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

Description

■ test engine for use in CT 110 test stand

In conjunction with the CT 110 test stand, which includes a drive and brake unit, the two-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 reverse scavenging. The engine is started and slowed down by an electric motor mounted in the CT 110 unit. The air cooling is effected by a flywheel fan. The brake unit is connected by way of an elastic claw coupling.

The engine is prepared for measurement of the cylinder pressure for indication. It includes a sensor to measure the exhaust gas temperature and a connection to measure the intake pressure. Both sensors, ignition cut-off and fuel supply are connected to the CT 110 test stand.

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

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Required accessories

063.11000	CT 110	Test stand for single cylinder engines, 7,5kW
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Optional accessories

063.15902	CT 159.02	Exhaust gas analysing unit
063.10011	CT 100.11	Exhaust gas calorimeter for CT 110