

THEPRA - Dynamometer for Engine Performance

Dynamometer up to 150kW, 0 - 7000 1/min



Order No. 40 015000

The THEPRA-DREHMOMESS has been developed for instructional use and performance tests. The unit is light, compact and easy to install and is a most versatile instrument. The self contained design of the DREHMOMESS permits quick changes from engine to engine by bolting the unit to the crankcase of the engine to be tested.

The **instrumentation** of the console is as follows:
Tachometer, Torque meter (Nm), Oil pressure indicator (bar), Oil temperature indicator (°C), Water temperature (°C), Ignition/starter switch, Pilot lamp, Engine control, Water control (load control).

Operation

The THEPRA-DREHMOMESS is a hydraulic brake retarder. The rotating torque of the engine is converted to a stationary torque that will be measured. The turbulent action of the water absorbs the power of the engine. The load is controlled by the water inlet. The power is converted into heat which is carried away by the continually flowing water.

Mounting of the engine

The THEPRA-DREHMOMESS will be bolted to the engine crankcase by the help of an adapter flange (optional). The adapter flange has to be made in accordance with the bell housing of the engine. The bell housing has to be centred to the DREHMOMESS by means of the adapter flange. The rotor shaft of the DREHMOMESS will be connected to the engine clutch disc by the interchangeable connection shaft (optional). Necessary water flow rate approx. 40 l/min. of at least 4 bar hydraulic pressure.

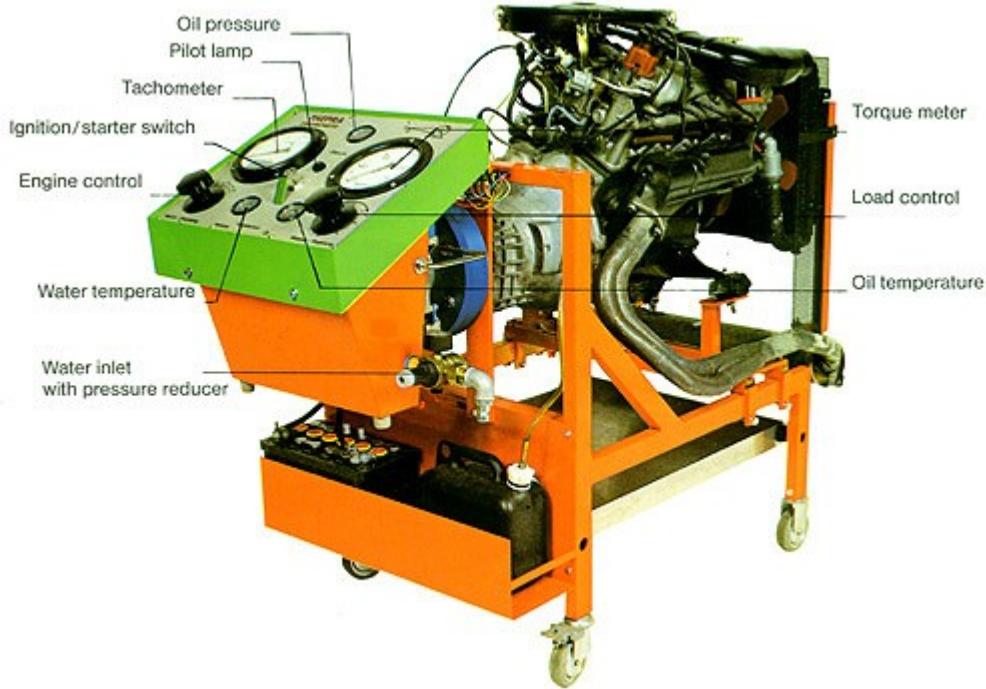
Adapter flange / Connection shaft

Adapter flange and a connection shaft are available as accessories. A dedicated adapter flange and a connection shaft are necessary for each different engine. When ordering, type of engine, power data and year of manufacture should be indicated.

Dimensions:

width 650 height 500 depth 450

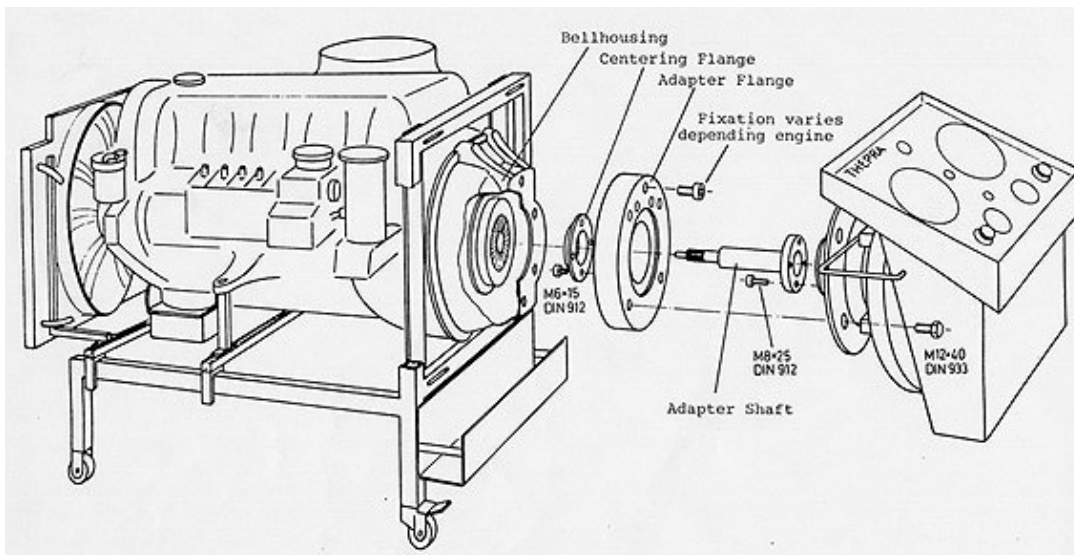
weight: 35 kg



The THEPRA-DREHMOMESS in the above picture is attached to a BMW engine. The stand is a THEPRA Universal engine-test stand. At the fan side there is the genuine radiator. The console for the fuel tank and the battery is underneath the DREHMOMESS. The rubber-mounted drip pan is below the engine.

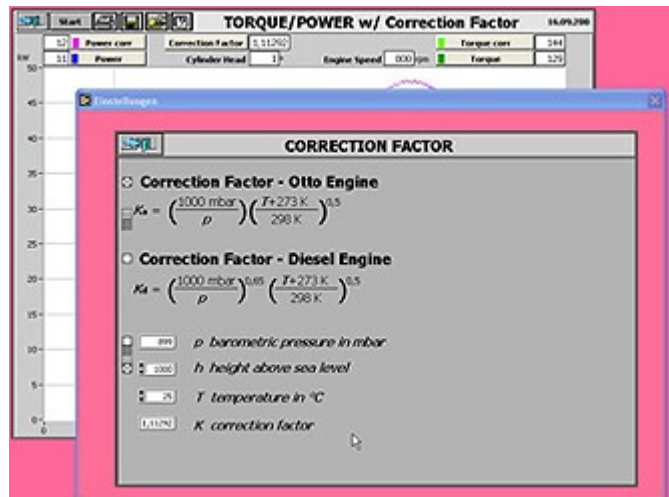
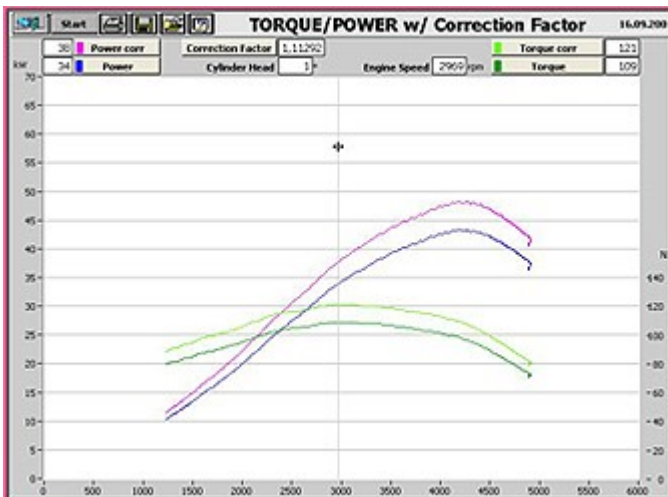
While checking the performance it is advisable to arrange for an additional cooling (cooling tower order no. 40 035 000).

Engine assembly and delivery on request



Sketch of fitting the dynamometer to an engine

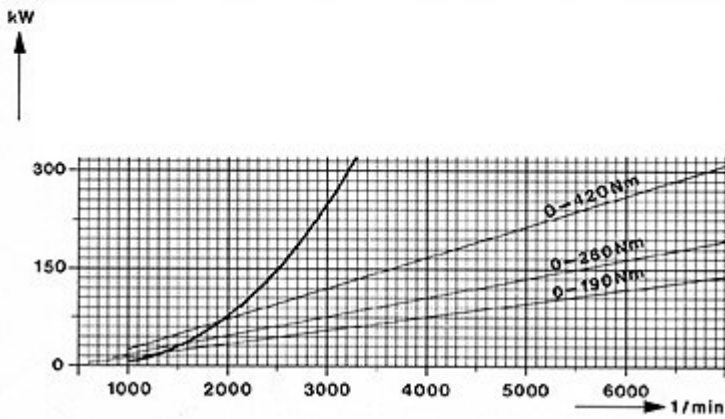
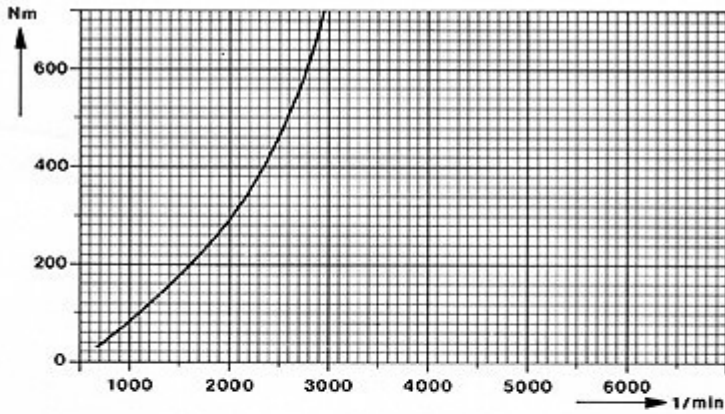
Computer-Controlled Test-Data Recording System



Computer-Controlled Test-Data Recording System for connection with the THEPRA Dynamometer

- Order No. 55 011 000 Transducer, interface etc. for PC data logging
- Order No. 55 051 000 Dynamometer for engines up to 150kW
- Order No. 38 079 130 Interface card USB
- Order No. 55 011 030 Software

DIAGRAMS THEPRA Dynamometer



The maximum ranges of torque (Nm) and performance (kW) of the THEPRA-DREHMOMESS are shown in the above diagrams.

The DREHMOMESS can operate at any point below and on the right of the curve.

Water required: Each 75 kW require 40 l/min. of water with a minimum pressure of 4 bar. The DREHMOMESS will not suffer any damages when overcharged in the torque and performance range.



**Order No. 40 035 000
Cooling Tower**

TECHNOLAB SA, Rotherdweg 16, CH-5022 Rombach - Switzerland

Tel: +41 62 827 11 11 - Fax: +41 62 827 11 70 - e-mail: info@technolab.org - www.technolab.org - Skype: technolabsa