

IMES TPE - Performance Evaluation Software

for Marine Diesel Engines

- automatic evaluation of current engine performance
- easy collection, management and comparison of engine performance data
- performance graphs and reports show deviation and suggest actions to take
- clearly illustrated commercial calculations that allow to save money by reducing fuel and oil consumption
- automatic data transfer from EPM-XP to TPE software
- pressure curve analysis software module full integrated

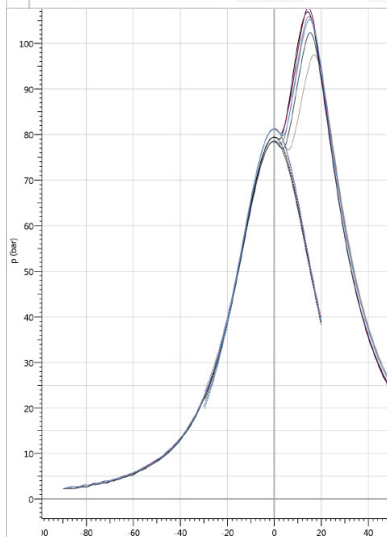
Application:

- for any type or size of marine diesel engines

Necessary hardware:

- EPM-XP

| | ISO CORRECTED | | MEASURED | | | | | | | |
|-----------------------------|---------------|-------------|----------|--------|--------|--------|--------|--------|--------|-------|
| | REF. | CALC. | AVG. | CYL. 1 | CYL. 2 | CYL. 3 | CYL. 4 | CYL. 5 | CYL. 6 | |
| Firing pressure | barG | 116,0 | 108,0 | 104,5 | 107,1 | 108,0 | 97,9 | 106,0 | 102,7 | 105,5 |
| pmax deviation | bar | | | 2,6 | 3,5 | -6,6 | 1,5 | -1,8 | 1,0 | |
| Compression pressure | barG | 80,7 | 81,6 | 80,1 | 79,5 | 81,3 | 81,4 | 78,7 | 78,5 | 81,2 |
| pcomp deviation | bar | | | -0,6 | 1,2 | 1,3 | -1,4 | -1,5 | 1,1 | |
| Mean indicated pressure | barG | 12,11 | | 11,92 | 11,64 | 11,53 | 12,18 | 12,33 | 11,69 | 12,13 |
| MIP deviation | bar | | | -0,28 | -0,39 | 0,26 | 0,41 | -0,23 | 0,21 | |
| Mean effective press. (MEP) | bar | 11,47 | | 11,27 | | | | | | |
| Power indicated | kW | | SUM: | 11039 | 1791 | 1798 | 1876 | 1898 | 1803 | 1873 |
| pmax-pcomp pcomp / pscav | | 35,3 34,8 | | 245 | 35,5 | | | | | |



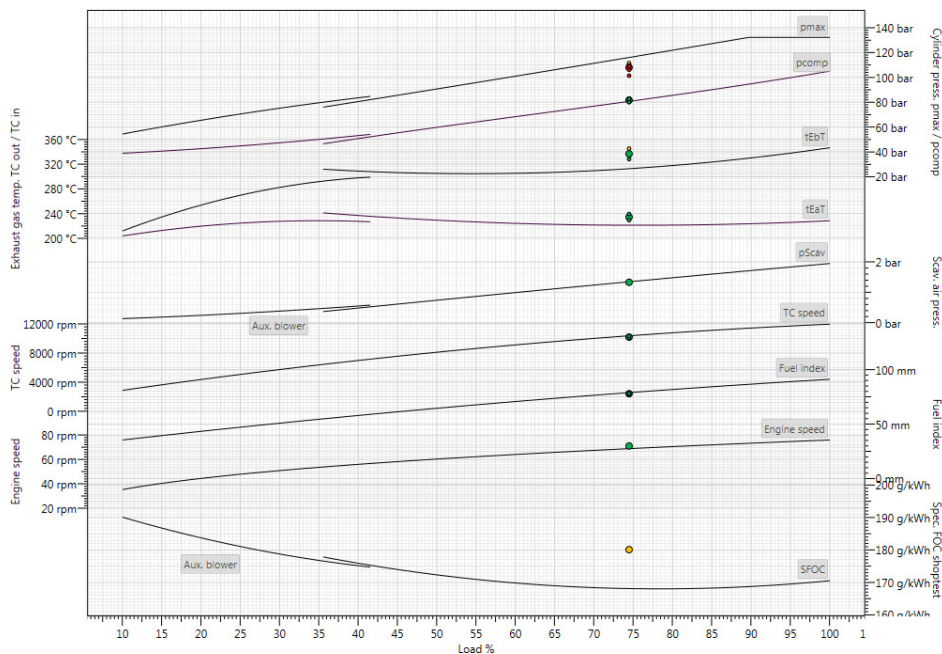
Optimization potential

| Influenced by | Potential saving / reduction | | |
|--|------------------------------|--------------|-------------------|
| | Fuel | Thermal load | Cylinder lub oil |
| Injection timing | 2,4 g/kWh | 3 °C | |
| Suction pressure | | | |
| Pressure drop accross SAC | | | |
| Water temp. SAC in (for setpoint 29°C) | | | |
| Scav. air temp. SAC out | | | |
| Press. drop accross ENGINE | | | |
| Exh. gas press. TC out | | | |
| Turbocharger efficiency | 1,0 g/kWh | 10 °C | |
| Light running (sea margin) | | | |
| Fuel oil viscosity ENGINE in | | | |
| TOTAL | 3,4 g/kWh | | 0,14 g/kWh |
| TOTAL (% of current) | 1,8 % | | |
| TOTAL (absolute / 1000 run. hrs.) | 36 t | | 1,452 t |

IMES TPE - Performance evaluation software for economic engine operation

The new IMES TPE software loads cylinder pressure data from EPM-XP directly. It is designed to facilitate the collection, evaluation, management and comparison of engine performance data for marine diesel engines.

The chief engineer only needs to fill in the required information so the program can do ISO corrections and compare against new-engine performance benchmarks. Performance graphs and reports give a quick status of an engine and suggest actions take for optimising engine condition. This enables extensive savings by reducing fuel and oil consumption as well as engine repairs caused by inadequately adjusted engines.



Scope of supply

Part no.

IMES TPE software licence for 2-stroke engine configured for main engine, incl. software updates

IW-8050

IMES TPE software licence for 4-stroke engine configured for auxiliary engine, incl. software updates

IW-8051

IMES TPE software licence for 2- and 4-stroke engines configured for main engine and auxiliary engines Incl. software updates

IW-8052

EPM-XP Electronic Indicator

IW-1520