BN CHECK

Electronic BN Test

The portable test kit **BN CHECK** contains the digital test device TWIN CHECK 4.0 configured and available in its **BN CHECK** version, BN reagent and accessories to provide engineers and users with regular on-site measurements of base number (BN) of the used engine lube oil as well as the remaining BN of cylinder drain oil (CDO) as a part of the Cylinder Drain Oil (CDO) analysis also called Scrape Down Analysis (SDA). Routine on-site monitoring of the base number of the lubricant enables rapid determination of sudden BN drop in order to early detect any abnormal wear processes and corrosion related issues, before serious engine wear occurs.

Test Kit „BN CHECK“ incl. Reagents and Accessories for Regular BN Measurements

Features:

- Measuring range: 0 - 150 BN
- Measuring time: depends on the measured value (min. 2 - max. 20 min.)
- Accuracy: +/- 1 BN

Benefits:

- Applicable for all mineral oil-based fluids
- Improved design with easy-to-follow navigation menu for high accuracy measurements
- Digital read-out of test results
- Internal memory chip with average data storage of *2.5* years
- USB to serial cable connectivity for data transfer and trend analysis
- 6 modes for up to 6 various oil grades of different engines
- Maintenance and repair on board is possible

The test device TWIN CHECK 4.0 in its **BN CHECK** version is offered in new modular design with several upgraded configurations in accordance with Industry 4.0 concept: flexible replacement of constituent parts, user-friendly navigation menu, optimized measurement process, precise determination of measuring time in accordance with the measured value and automatic cut-off of measurement. Large memory capacity for data storage and USB to serial connection (terminal program) enables conducting trend analysis and direct on-site evaluation of test results.
The essential distinctive feature of the TWIN CHECK 4.0 (and its **BN CHECK** version) is the possibility to replace every single constituent part (no matter plugged or screwed) in case of malfunction or damage occurred.

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Test Device „TWIN CHECK 4.0“ in its „BN CHECK“ Version for Regular BN Measurements

The interchangeable parts of the test device include: a display in conjunction with a mainboard, a cable connection between the mainboard and the pressure cells, a pressure transmitter (pressure sensor), 9V block battery, a cable connection to the battery, USB cable and a reaction vessel. After a short on-site technical diagnosis and determination of malfunction cause (employing, for example, the MT TEST KIT VERIFYER for detection of pressure related problems), the required component can be ordered and independently replaced.

The two chambers of the reaction vessel of the **BN CHECK** get filled with the oil sample and the reagent. After closing the device, the integrated pressure sensor adopts the external (ambient) pressure as a measurement line with a zero-referenced value. Once the procedure is completed, by shaking the test device every two minutes for 15 seconds the measuring process takes place. The pressure build-up is directly proportional to the base number (BN) of the oil under examination. As soon as the pressure is no more increasing (i.e., the BN parameter is constant), the test device automatically stops measuring and displays the end-result. Therefore, the amount of time required for testing varies in accordance with the measured BN value. Prior to the BN measurement, it is necessary to conduct a single time calibration for each oil grade of the engine system (corresponds to the BN modes available).

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