

TTT_Tapping-Torque-Testsystem

Regarding Compensation of Wear in a Series of Measurement with One Tool Only

Dear Madam, dear Sir

When we conduct a comparison measurement of three media/lubricants with three cuts/measurements each, the tool will be called into action 18 times ($3 \times 3 \times 2 = 18$). Even though with 18 cuts/measurements we not nearly reach the end of tool-life it still is a fact that between the first cut and cut/measurement n^o 18 a certain wear of the measurement tool takes place, which may falsify the measurement results. In order to avoid such false measurements we either can use a new tool for each medium/lubricant or we employ the TTT-method, which has the ability to fully compensate this wear with one measurement tool only.

As usual with a new measurement tool we conduct three run-ins.

We then start with medium A (three cuts), we continue with medium B (three cuts) and finish the first series of measurement with medium C (three cuts). These series of measurements we denote with A-a / B-a / C-a and create the sum.cuts for each medium.

So as to compensate the natural wear that has taken place up to now, we conduct a second measurement where we do not conduct the following comparative measurements according to A-B-C but rather in converse order; we continue with medium C (three cuts), we follow up with medium B (three cuts) and finally come to an end of the measurement series with medium A (three cuts) and get the summarized sum.cut for each medium (C-b / B-b / A-b).

In so doing we managed to proportionally dispense the wear of the tool, due to rising torques, and are up to undistorted measurement results.

In this context we ask you to kindly regard our fact sheet concerning the so called "Carry-over-Effect" to avoid measurement results

For further information please contact us, or kindly see us at the EMO-fair, which takes place from September 19 to 24, 2011 in Hannover. We exhibit in Hall 17, Booth F27 and are looking forward to your visit. There we gladly will present the method of measurement series for comparison of diverse media/lubricants for creation and optimization of formulations without faults.

Best regards

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September 2011