

# DIN EN 16715:2015-10 (E)

Liquid petroleum products - Determination of ignition delay and derived cetane number (DCN) of middle distillate fuels - Ignition delay and combustion delay determination using a constant volume combustion chamber with direct fuel injection

---

<b>Contents</b>		<b>Page</b>
European foreword .....		3
Introduction .....		4
1	Scope .....	5
2	Normative references .....	5
3	Terms and definitions .....	6
4	Principle .....	7
5	Reagents and materials .....	7
6	Apparatus .....	8
7	Sampling .....	8
8	Apparatus assembly and installation .....	10
9	Preparation of apparatus .....	10
9.1	System start-up and warm-up .....	10
9.2	Standard operating and test conditions .....	10
10	Calibration, verification and quality control .....	11
10.1	General .....	11
10.2	Calibration .....	11
10.3	Apparatus verification .....	12
10.4	Quality control (QC) .....	12
11	Test procedure .....	13
12	Calculation .....	13
13	Expression of results .....	13
14	Precision .....	14
14.1	General .....	14
14.2	Repeatability .....	14
14.3	Reproducibility .....	14
15	Test report .....	15
Annex A (normative) Combustion analyser description .....		16
A.1	General .....	16
A.2	Apparatus description and assembly .....	16
A.3	Control and data acquisition .....	18

<b>Annex B (normative) Operational details in support to the standard test procedure .....</b>	<b>19</b>
<b>B.1 General .....</b>	<b>19</b>
<b>B.2 Cleaning procedure to prepare fuel system for calibration .....</b>	<b>19</b>
<b>B.3 Automatic calibration procedure .....</b>	<b>19</b>
<b>B.4 Test sequence .....</b>	<b>20</b>
<b>B.5 Unit shutdown .....</b>	<b>22</b>
<b>Bibliography .....</b>	<b>23</b>