

ISO 10054:1998-09 (E)

Internal combustion compression-ignition engines - Measurement apparatus for smoke from engines operating under steady-state conditions - Filter-type smokemeter

Contents	Page
1 Scope.....	1
2 Normative references.....	1
3 Definition.....	2
4 Symbols.....	2
5 Measurement principle.....	2
6 Characteristics of filter-type smokemeters.....	2
6.1 Reference conditions.....	2
6.2 General specifications.....	2
6.3 Parameters.....	5
7 Information required from manufacturer.....	6
8 Operating conditions of filter-type smokemeter.....	7
8.1 Installation of filter-type smokemeter.....	7
8.2 Sampling procedure.....	7
9 Maintenance of filter-type smokemeter functional ability.....	7
10 Verification of types of filter-type smokemeters.....	7
10.1 Applicable procedures.....	7
10.2 Instrumentation and checking facilities for verification.....	8
10.3 Checking for verification.....	8
10.4 Measurements and calculations for verification.....	9
10.5 Cleanliness of gas in dead volume.....	9
10.6 Temperature at end of sampling.....	9
10.7 Representative sampling.....	10
10.8 Uniform blackening of filter area.....	10
10.9 Reflectometer characteristics.....	10
10.10 Filter characteristics.....	11
10.11 Calibration screen.....	11
10.12 Accuracy of reflectometer system.....	11
10.13 Statistical methods.....	11
Annexes A Equipment for checking leakage and actual suction volume of filter-type smokemeter....	12
A.1 General description.....	12
A.2 Specification of equipment necessary.....	12
A.3 Preparatory steps.....	15
A.4 Test procedure for checking leak-tightness and actual suction volume.....	16
A.5 Test procedure for checking nominal suction volume.....	16
B Bibliography.....	17