

ISO/TS 19425:2024-07 (E)

Reciprocating internal combustion engines - Measurement method for air cleaners - Sound power level of combustion air inlet noise and insertion loss using sound pressure

Contents		Page
Foreword		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Test environment	5
4.1	General	5
4.2	Criterion for background noise	5
4.3	Criterion for acoustic adequacy of test environment	6
5	Instrumentation	6
5.1	General	6
5.2	Calibration	6
5.3	Application	7
6	Installation and operation conditions	7
6.1	General	7
6.2	Installation condition	7
6.3	Operation condition	8
7	Measurement	9
7.1	General	9
7.2	Measurement uncertainty	9
7.3	Characteristic source dimension	10
7.4	Measurement radius	10
7.5	Measurement surface and area	10
7.6	Microphone arrays	10
8	Calculation	12
8.1	General	12
8.2	Calculation of sound power level	12
8.2.1	Mean time-averaged sound pressure levels	12
8.2.2	Corrections for background noise	13
8.2.3	Corrections for environmental	13
8.2.4	Surface time-averaged sound pressure levels	14
8.2.5	Sound power levels	14
8.3	Calculation of insertion loss	14
9	Information to be recorded	15
10	Test report	16
Annex A (normative)	Qualification procedures for the acoustic environment	17
Annex B (normative)	Calculation of A-weighted sound power levels from frequency band levels	20
Annex C (normative)	Sound power level under reference meteorological conditions	22
Bibliography		23