

INTERNATIONAL TRUCK AND ENGINE CORPORATION		
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1.0 APPLICATION

This specification establishes performance requirements for two types of air cleaners used in INTERNATIONAL Heavy Duty truck applications. It is intended to apply to heavy diesel engines with air flow rates of 600-1400 CPM. Type I covers single stage dry cartridge type air cleaners, and Type II covers multi-stage, primary and secondary, dry cartridge type air cleaners.

2.0 SCOPE

This specification covers efficiency ratings, initial restriction levels, minimum collapse level, and performance of air cleaners based upon nine (9) classes of International dust capacity ratings. Qualifications, source approval and quality control procedures are described.

NOTE: THIS SPECIFICATION REPLACES ENGINEERING DRAWING AD-9175. REFERENCES ON EXISTING DRAWINGS AND BLUEPRINTS TO AD-9175 ARE SUPERSEDED BY THIS SPECIFICATION.

3.0 REFERENCE DOCUMENTS

Unless otherwise specified the latest issue of all referenced standards shall apply. The following Specifications and standards are referenced in this specification:

Quality System Standard QS-9000 (ISO 9001)
INTERNATIONAL IQR Quality Standard
INTERNATIONAL Manufacturing Standard D-13

SAE J726
INTERNATIONAL Engr Procedural Std. #75
CFR Title 29, Part 1910

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4.0 PERFORMANCE REQUIREMENTS

4.1 All tests shall be conducted in accordance with SAE J726 – Air Cleaner Performance Code for Industrial Air Cleaners. All tests will be conducted on the air cleaner housing and filter cartridge as a fully-assembled test unit.

4.1.1 Type I air cleaner tests will use AC fine dust.

4.1.2 Type II air cleaner tests will use AC coarse dust.

4.1.3 The test unit (housing the cartridge filter) must be capable of withstanding 40 inches of water restriction (10 kPa vacuum pressure) without collapse or pressure drop which would permit unfiltered air to enter the engine.

4.2 Rated Efficiency:

4.2.1 Initial efficiency shall be no less than 98.5%.

4.2.2 Accumulative efficiency shall be no less than 99.8% with a terminal restriction level of 25 inches of water (6.3 kPa vacuum pressure).

4.3 Maximum initial restriction with clean cartridge, as measured between the housing inlet and outlet shall not exceed:

4.3.1 Type I air cleaners: 6 inches of water at 1000 CPM (1.5 kPa at 1700 m³/h).

4.3.2 Type II air cleaners: 10 inches of water at 1000 CFM (2.5 kPa at 1700 m³/h).

4.4. Classification – Ratings

Classes for minimum dust capacity ratings measured in grams per CFM (grams per m³/h) are as follows:

- 4.4.1** A. 0.5 (0.85)
- B. 1.0 (1.7)
- C. 2.0 (3.4)
- D. 3.0 (5.1)
- E. 5.0 (8.5)

- F. 10.0 (17.0)
- G. 15.0 (25.5)
- H. 20.0 (34.0)
- J. Rating to be specified on drawing

4.5 Dust Capacity

4.5.1 Minimum dust capacity shall be rated with the following conditions:

4.5.1.1 Flow Rate + 1000 CFM (1700 m³/h).

4.5.1.2 Terminal Restriction Level = 25 inches of water (6.3kPa vacuum pressure).

4.5.2 Dust capacity in grams is the product of the minimum class rating (4.1) times the rated air flow (5.11).

Example: Class D Capacity = 3.0 x 1000 = 3000 grams.

4.6 Exceptions

Any exceptions or deviations to the requirements of this specification must be clearly stated on the engineering drawing.

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