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JAPANESE INDUSTRIAL STANDARD

**Reflection Type Smokemeters
for Automobile Diesel Engine**

JIS D 8004—1986

Translated and Published

by

Japanese Standards Association

In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

JAPANESE INDUSTRIAL STANDARD

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Reflection Type Smokemeters for
Automobile Diesel Engine

D 8004-1986

1. Scope

This Japanese Industrial Standard specifies the reflection type smoke meters, hereinafter referred to as the "smokemeters", to be used in measuring the density of exhaust smoke in accordance with JIS D 1101.

2. Definitions

For the purposes of this standard, the following definitions apply:

- (1) pollution level The degree of pollution with exhaust gas of the filter paper for exhaust smoke density measurement, hereinafter referred to as the "filter paper", specified in JIS D 1101.
- (2) radiance factor A factor that has been expressed in percentage, obtaining L/L_0 from the luminance L of the surface of an object and the luminance L_0 of the standard white surface of magnesium oxide placed under a specific lighting and observational conditions.
- (3) suction volume The volume of exhaust gas sucked in by operating the suction piston with mounting the filter paper to the inserting part for filter paper of the suction device.
- (4) dead volume The total of inside volumes of the pipe way, branch part, valve and enlarged portion of the filter paper inserting part, from the extracting end to the filter paper inserting part.

3. Types and Rating

The types and ratings of the smokemeters shall be as given in the following:

- (1) Types The types shall be as given in the following:
 - (a) Manual Type (A type using circular filter paper)
 - (b) Automatic Type (A type using tape filter paper)
- (2) Power Source and Rated Frequency The power source of the smokemeters shall be dry cell, galvanic cell or single phase a.c. 100 V, and the rated frequency shall be 50 Hz or 60 Hz for exclusive use, or 50 Hz and 60 Hz for common use.