

Fifth edition
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Diesel fuel — Assessment of lubricity using the high-frequency reciprocating rig (HFRR) —

Part 1: Test method

*Carburant diesel — Évaluation du pouvoir lubrifiant au banc
alternatif à haute fréquence (HFRR) —*

Partie 1: Méthode d'essai



Reference number
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Foreword

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This fifth edition cancels and replaces the fourth edition (ISO 12156-1:2018), which has been technically revised.

The main changes are as follows:

- the scope has been broadened;
- a new precision statement has been added using linear transformation as required by ISO 4259-1;
- “Method B” Visual Observation has been removed.

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Introduction

All diesel fuel injection equipment has some reliance on diesel fuel as a lubricant. Wear due to excessive friction resulting in shortened life of engine components, such as diesel fuel injection pumps and injectors, has sometimes been ascribed to lack of lubricity in the fuel.

The relationship of test results to diesel injection equipment component distress due to wear has been demonstrated for some fuel/hardware combinations where boundary lubrication is a factor in the operation of the component. Test results from fuels tested using this procedure have been found to correlate with many fuel/hardware combinations and provide an adequate prediction of the lubricating quality of the fuel. The correlation of biodiesel blends has been validated through 15 years of field experience and anecdotal data.