



BSI Standards Publication

Motorcycles — Guideline for verification of total running resistance force during mode running on a chassis dynamometer

National foreword

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Motorcycles — Guideline for verification of total running resistance force during mode running on a chassis dynamometer

*Motorcycles — Lignes directrices pour la vérification de la force
totale de résistance à l'avancement durant les essais sur un banc
dynamométrique en mode roulage*





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Foreword

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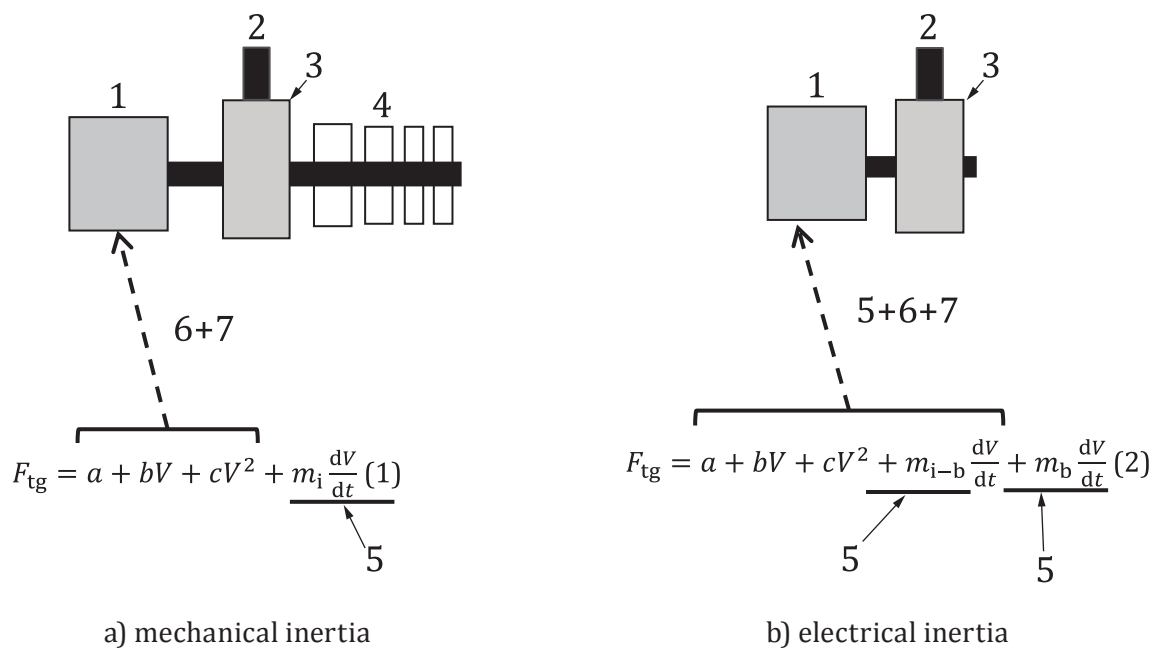
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Introduction

A mechanical inertia chassis dynamometer (Formula (1)) is a device with a mechanical flywheel, whereas a chassis dynamometer (Formula (2)) using the electric inertia function is not equipped with such a mechanical flywheel equivalent to inertia mass system and the inertia force is electrically set in the same way of the running resistance force control (Figure 1). The inertia force is generated by the acceleration and/or deceleration, therefore, it is necessary to check the performance of electric inertia function during the mode running test and ISO 18580 specifies the method to verify the chassis dynamometer operated normally.

However, ISO 18580 does not provide a threshold for the verification result, and it is difficult to determine its validity. Therefore, we investigate the effect of factors affecting fuel consumption on ISO 18580 verification results, and propose a technical report that shows the guideline for determining the threshold of the verification result.



Key

- 1 dynamometer
- 2 tire
- 3 roller
- 4 flywheels
- 5 acceleration resistance
- 6 rolling resistance
- 7 aerodynamic drag resistance

NOTE The symbols are defined in Clause 4.

Figure 1 — The principle of mechanical and electrical inertia dynamometer

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