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Heavy commercial vehicles and buses — Centre of gravity measurements — Axle lift, tilt-table and stable pendulum test methods

Véhicules utilitaires lourds et autobus — Mesure du centre de gravité — Méthode d'essais du plateau incline, levage d'un essieu et pendule stable

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Foreword

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This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 33, *Vehicle dynamics and chassis components*.

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Introduction

Methods are presented for measuring the location of the centre of gravity of an individual vehicle unit in the horizontal, lateral and vertical planes. Location of the longitudinal and lateral centre of gravity positions are obtained through successive use of wheel or platform scales. Three different methods are described for measurement of the vertical centre of gravity – the axle lift method, the tilt-table method, and the stable pendulum method. The selection of the method to use depends on the facility and resource availability, as well as constraints imposed by the vehicle design. Knowledge of a vehicle unit's centre of gravity supports vehicle modelling work, design validation and planning for other dynamic tests yet to be performed.

