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**Heavy commercial vehicles and  
buses — Definitions of properties  
for the determination of suspension  
kinematic and compliance  
characteristics**

*Véhicules utilitaires lourds et autobus — Définitions des propriétés  
pour la détermination des caractéristiques cinématiques et de  
conformité des suspensions*





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Published in Switzerland



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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

The dynamic behaviour of a road vehicle is a very important aspect of active vehicle safety. Any given vehicle, together with its driver and the prevailing environment, constitutes a closed-loop system that is unique. The task of evaluating the dynamic behaviour is therefore, very difficult since the significant interaction of these driver-vehicle-environment elements are each complex in themselves. A complete and accurate description of the behaviour of the road vehicle shall necessarily involve information obtained from a number of different tests.

Static properties of the vehicle and its systems can have an important impact on the vehicle dynamic behaviour and a driver's or automation's ability to generate the desired motion. Test conditions have a strong influence on test results. Therefore, only vehicle dynamic and static properties obtained under virtually identical test conditions are comparable to one another.

Since this test method quantifies only one small part of the complete vehicle handling characteristics, the results of these tests can only be considered significant for a correspondingly small part of the overall dynamic behaviour.

Moreover, insufficient knowledge is available concerning the relationship between overall vehicle dynamic properties and accident avoidance. A substantial amount of work is necessary to acquire sufficient and reliable data on the correlation between accident avoidance and vehicle dynamic properties in general and the results of these tests in particular. Consequently, it is important for any application of this test method for regulation purposes the proven correlation between test results and accident statistics.