

**Personbilsdäck – Ersättningsutrustning för  
reservhjul (ISO 16992:2006, IDT)**

**Passenger car tyres – Spare unit substitutive  
equipment (SUSE) (ISO 16992:2006, IDT)**

Den internationella standarden ISO 16992:2006 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av ISO 16992:2006.

The International Standard ISO 16992:2006 has the status of a Swedish Standard. This document contains the official English version of ISO 16992:2006.

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## Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 16992 was prepared by Technical Committee ISO/TC 31, *Tyres, rims and valves*, Subcommittee SC 3, *Passenger car tyres and rims*.

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### Introduction

Road vehicles, in order to assure unrestricted mobility, need to be equipped with fully efficient tyres in all positions.

Traditionally, therefore, road vehicles are provided with a spare unit intended to reinstate vehicle mobility in case of loss of efficiency of one tyre. That spare unit may be

- either of the same type as the units normally equipping the vehicle;
- or of “temporary use” type, thus intended for use only under restricted conditions.

Some vehicles, however, may be constructed and provided with devices which may reinstate their mobility also in the absence of a spare unit on board. Various types of such devices (emergency solutions, products, systems) are available to users in order not to lose or to recover the possibility to continue their journey in case of loss of efficiency of one or more tyres.

The term “spare unit substitutive equipment” (SUSE) is proposed as a general name for all equipment intended to replace a spare unit on board the vehicle.

The term “extended mobility system” is proposed for the assembly of several independent but interacting components specified and approved by a system manager.

This International Standard mainly concerns extended mobility systems for vehicles equipped with passenger car tyres, thus allowing continued driving in restricted conditions after a loss of efficiency of at least one of the tyres of the vehicle.

This International Standard specifies minimum performance levels for SUSE. It is a help for fixing objective requirements for a SUSE and allows the standard level of a given existing extended mobility system to be determined.

# Passenger car tyres — Spare unit substitutive equipment (SUSE)

## 1 Scope

This International Standard describes spare unit substitutive equipment (SUSE) for passenger car tyres. This equipment is designed to allow the user to continue the journey (with or without a stop) in a reasonably safe manner.

NOTE 1 Some equipment becomes effective automatically and thus avoids the necessity of stopping the vehicle immediately for inspection and corrective action.

This International Standard only aims to qualify the performance of extended mobility systems. It details specifications only for extended mobility systems suitable to permit the extended mobility of the vehicle.

NOTE 2 Other types of SUSE are described in Annexes A and B.

This International Standard applies from the moment the extended mobility system becomes effective, and the driver has continued control of the vehicle (in speed and direction) in order to attempt to reach an appropriate place for servicing.

This International Standard does not cover

- the vehicle thus equipped;
- the tyre while operating in inflated mode;
- the characteristics of the pressure survey device and of the warning function relative to the inflated mode or to the partially deflated mode due to slow pressure losses;
- the transitory phase, if any, before the equipment becomes effective;
- the inspection, assessment, and the servicing of the extended mobility system, after it has been activated in flat tyre running mode.

This International Standard includes

- the description of the various types of SUSE;
- the description and performance levels of complete extended mobility systems.

NOTE 3 The performance level which the user reasonably has the right to expect, and the restrictive conditions placed upon that level, can vary to a large degree according to the equipment installed and to real operating conditions of the tyre in flat-tyre running mode.

## 2 Conformance

**2.1** When in inflated mode, and therefore functionally efficient, a tyre which is part of a SUSE shall conform in all respects to the usual criteria of a pneumatic tyre which can only be used in an inflated state, normal tyre load (i.e. conform to ISO 4000 and to ISO 10191) and shall be similarly maintained. Therefore, the user shall continue to comply with all recommendations of the tyre and/or vehicle manufacturer, as for a normal tyre; in particular, the cold inflation pressure of each tyre shall be regularly checked. This check is necessary in order that it is at least adequate for the intended service (position, load, speed, camber, etc.) and conforms to the specifications of the vehicle manufacturer and/or the tyre manufacturer.

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**2.2** Whichever SUSE is chosen to equip a vehicle, it shall not degrade the service properties of the tyre in inflated mode.

**2.3** The performance of a SUSE depends upon the nature of the damage that was the cause of the loss of tyre functional efficiency.

**2.4** Depending on the technical characteristics and functionality, a SUSE may offer to the vehicle different degrees of mobility (i.e. restored mobility, preserved mobility or extended mobility).

### 3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4000 (all parts), *Passenger car tyres and rims*

ISO 10191, *Passenger car tyres — Verifying tyre capabilities — Laboratory test methods*

### 4 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 4.1

##### **normal tyre**

pneumatic tyre designed for use in an inflated state

#### 4.2

##### **run-flat tyre**

tyre designed to operate in an inflated mode and capable of running at least a specified distance under prescribed conditions in the event that the tyre does not hold air

#### 4.3

##### **spare unit**

assembly of a wheel and a tyre, which may include a tube, a valve, etc., which is intended to replace a wheel and tyre assembly already fitted on a vehicle that has lost some functional efficiency

#### 4.4

##### **spare unit substitutive equipment**

##### **SUSE**

equipment intended to maintain or restore, not replace, the basic functions of a tyre in case of a tyre/wheel assembly failure

#### 4.5

##### **extended mobility system**

assembly of specified functionally dependent components including, but not limited to, a tyre and a run-flat warning system, which together provide the specified performance granting extended mobility to a vehicle thus equipped

NOTE Examples which do not meet this International Standard are shown in Annexes A and B.

#### 4.6

##### **inflated mode**

normal working state of a pneumatic tyre, inflated at the cold inflation pressure recommended by the vehicle or tyre manufacturer for the intended service