SLOVENSKI STANDARD
SIST EN 16990:2020

01-julij-2020

Lahka motorna vozila za prevoz oseb in blaga ter pripadajoča oprema, za katera ni potrebna homologacija za uporabo na cesti - Zunajcestna vozila - Varnostne zahteve in preskusne metode

Light motorized vehicles for the transportation of persons and goods and related facilities and not subject to type-approval for on-road use - Side by Side Vehicles - Safety requirements and test methods

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Motorisierte (ride-on) Fahrzeuge ohne Zulassung für den öffentlichen Straßenverkehr, bestimmt für den Transport von Personen und Gütern - Side-by-Side-Fahrzeuge - Sicherheitstechnische Anforderungen und Prüfverfahren

SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f0df1-da69-4536-a51c-1a785466b693/sist-en-16990-2020

Véhicules motorisés légers non soumis à la réception par type pour le transport de personnes, de marchandises ainsi que d'autres équipements - Véhicules tout terrain (VTT - Quads) et véhicules côte à côte - Exigences de sécurité et méthodes d'essai

Ta slovenski standard je istoveten z: **EN 16990:2020**

ICS:

43.080.99	Druga tovorna vozila	Other commercial vehicles
43.140	Motorna kolesa in mopedi	Motorcycles and mopeds

SIST EN 16990:2020 **en,fr,de**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

SIST EN 16990:2020

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f0dfd-da69-4536-a51c-fa78546beb93/sist-en-16990-2020

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 16990

May 2020

ICS 43.080.99; 43.140

English Version

Light motorized vehicles for the transportation of persons and goods and related facilities and not subject to type-approval for on-road use - Side by Side Vehicles - Safety requirements and test methods

Véhicules motorisés légers non soumis à la réception par type pour le transport de personnes, de marchandises ainsi que d'autres équipements - Véhicules côte à côte - Exigences de sécurité et méthodes d'essai

Motorisierte (ride-on) Fahrzeuge ohne Zulassung für den öffentlichen Straßenverkehr, bestimmt für den Transport von Personen und Gütern - Side-by-Side-Fahrzeuge - Sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 7 March 2020.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 16990:2020

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

© 2020 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN 16990:2020 E

SIST EN 16990:2020

Contents

European foreword 6
Introduction 7
1 Scope 8
2 Normative references 8
3 Terms and definitions 10
4 List of hazards 14
5 Safety requirements and/or protective measures 14
5.1 General Requirements 14
5.2 Mechanical hazards 14
5.2.1 Speed control pedal 14
5.2.2 Braking devices 15
5.2.3 Steering system 17
5.2.4 Moving parts 18
5.2.5 Sharp edges 19
5.2.6 Safety Belts and their anchorages 19
5.2.7 Roll Over Protective Structures (ROPS) 23
5.2.8 Fuel and hydraulic systems 23
5.2.9 Operator's seat 24
5.2.10 Passenger seat and handhold(s) 24
5.2.11 Suspension 24
5.2.12 Drive Train controls 24
5.2.13 Electric starter interlock 25
5.2.14 Reversing indicator and warning 25
5.2.15 Access systems to the operator's station, passenger accommodation and maintenance points 25
5.2.16 Foot controls 25
5.2.17 Lighting Equipment (headlamps, tail lamps and stop lamps) 26
5.2.18 Tilt Table Stability Tests (Lateral and Longitudinal) 26
5.2.19 Tyres 26
5.2.20 Maximum design speed 27
5.2.21 Engine stop switch 27
5.2.22 Manual clutch control 27
5.2.23 Unauthorised use 28
5.2.24 Acoustic/audible warning 28
5.3 Electrical Hazards – General 28
5.3.1 Grounding 28
5.3.2 Capacity and over-current protective devices 28
5.3.3 Routing and Installation 28
5.3.4 Electrical Energy Storage Systems 29
5.3.5 Protection against accidental by-passing of the starter security 29
5.4 Hot surfaces 29
5.4.1 General 29
5.4.2 Temperature limits for touchable surfaces 30
5.5 Noise control 30
5.5.1 Noise control at source by design 30
5.5.2 Noise control by protective measures 31
5.5.3 Noise reduction by information 31
5.6 Vibration hazards 31
5.7 Material/substance hazards 31

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f0dfd-de69-4536-a51a-fa78546beb93/sist-en-16990-2020

SIST EN 16990:2020

5.8 Storage provisions 31
5.9 Ergonomics 32
5.10 Errors of fitting 32
5.11 Additional Requirements for Electric-Powered Vehicles 32
5.11.1 Grounding 32
5.11.2 Electrical Heat-generating 32
5.11.3 Heat test acceptance 32
5.11.4 Movement Modes (Safety Requirements) 32
5.11.5 Charging Requirements 33
5.11.6 High Voltage Requirements 33

6 Verification of the safety requirements and/or protective measures 34
6.1 Verification methods 34
6.2 Verification of final assembly 35

7 Information for use 36
7.1 General 36
7.2 Signs (pictograms), written warnings 36
7.3 Accompanying documents (in particular the instructions handbook) 36
7.4 Marking 39

Annex A (informative) Examples of Side by Side Vehicles (SbSs) 41

Annex B (normative) Service braking system and service brake performance 45

B.1 Measuring maximum speed 45
B.1.1 Test operator 45
B.1.2 Test conditions 45
B.1.3 Test procedure 45
B.2 Measuring service brake performance 46
B.2.1 Test conditions 46
B.2.2 Test procedure 46
B.2.3 Service brake fade performance 47
B.2.3.1 Test conditions 47
B.2.3.2 Test procedure 47
B.2.3.3 Alternative Test Procedure (Repeated braking) 47
B.2.3.4 Hot Performance 48
B.2.4 Service brake fade recovery performance 48
B.2.4.1 Test conditions 48
B.2.4.2 Test procedure 48

Annex C (normative) Parking Brake/Mechanism Performance 49
C.1 Test conditions 49
C.2 Test Procedure 49

Annex D (normative) Test conditions stability 50
D.1 Tilt table lateral stability tests 50
D.1.1 Test conditions 50
D.1.2 Test vehicle configuration 50

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f0dfd-da69-4536-a51c-fa785346bcb9/sist-en-16990-2020

SIST EN 16990:2020

D.1.3 Tilt table test platform requirements 50
D.1.4 Test procedure 50
D.2 Tilt table longitudinal stability tests 51
D.2.1 Test conditions 51
D.2.2 Test procedure 52
Annex E (normative) Determination of hot surfaces 53
E.1 General 53
E.2 Temperature measuring equipment 53
E.3 Determination of temperature of areas to be assessed 53
E.4 Determination of inadvertent accessibility of hot surfaces 54
E.4.1 For distance between the identified hot area and the nearest control in excess of 100 mm 54
E.4.2 For distance between the identified hot area and the nearest control less than or equal to 100 mm 54
E.4.3 Recording of determined inadvertent accessible hot areas 55
Annex F (normative) Noise test code 57
F.1 General 57
F.2 Determination of the A-weighted emission sound pressure level at the operator's station and passenger(s) positions 57
F.2.1 Basic standards and measurement procedure 57
F.2.2 Measurement uncertainty 58
F.3 A-weighted sound power level determination 58
F.3.1 Basic standards and measurement procedure 58
F.3.2 Measurement uncertainty 59
F.4 Test Environment 59
F.5 Operating conditions 60
F.6 Information to be recorded and reported 60
F.6.1 Vehicle under test 60
F.6.2 Acoustic environment 61
F.6.3 Instrumentation 61
F.6.4 Acoustical data 61
F.7 Noise Declaration 61
Annex G (normative) Vibration test method 63
G.1 Background 63
G.2 Coupling the hand and body to the vibration source 64
G.3 Positioning and operating the vehicle during the test 65
G.4 Parameters to be measured 65
G.5 Determination of the vibration values 65

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f0dfd-da69-4536-a51c-fa78546beb93/sist-en-16990-2020

SIST EN 16990:2020

G.6 Information to be recorded 65
G.6.1 General 65
G.6.2 Vehicle under test 65
G.6.3 Measuring equipment 66
G.6.4 Vibration data 66
G.7 Information to be reported 66
Annex H (normative) Test methods applying to safety belt anchorages and safety belts 67
H.1 General 67
H.2 Location of the upper effective safety belt anchorages 67
H.3 Testing provisions 69
Annex I (normative) Heat Generating Components – Heat Test for Electric Powered Vehicles 73
I.1 Test Conditions for Electric Powered Vehicles 73
I.2 Test Procedure 73
Annex J (informative) Pre-delivery form 74
J.1 General 74
J.2 Dealer's declaration 74
J.3 Purchaser's declaration 75
Annex K (informative) Warnings and Pictograms 76
Annex L (informative) Instructions for tyres to be included in the instructions handbook 79
L.1 General 79
L.2 Instructions on use 79
L.2.1 Fitting and removal of tyres 79
L.2.2 Inflation pressure 79
L.3 Tyre and wheel maintenance 79
L.4 Tyre replacement 79
L.5 Tyre ageing 79
Annex M (normative) List of hazards 80
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC aimed to be covered 85
Bibliography 88

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a80f0dfd-da09-4536-a51e-fa78546beb93/sist-en-16990-2020

SIST EN 16990:2020

European foreword

This document (EN 16990:2020) has been prepared by Technical Committee CEN/TC 354 “Non-type approved light motorized vehicles for the transportation of persons and goods and related facilities -”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2020, and conflicting national standards shall be withdrawn at the latest by November 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2006/42/EC.

For relationship with EU Directive 2006/42/EC, see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f0dfd-da69-4536-a51c-fa78546beb93/sist-en-16990-2020

SIST EN 16990:2020

Introduction

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

— machine manufacturers (small, medium and large enterprises);

— health and safety bodies (regulators, accident prevention organizations, market surveillance etc.)

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

— machine users/employers (small, medium and large enterprises);

— machine users/employees (e.g. trade unions, organizations for people with special needs);

— service providers, e.g. for maintenance (small, medium and large enterprises);

— consumers (in case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

This document is a type C standard as stated in EN ISO 12100:2010.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

The vehicles concerned and the extent to which hazards, hazardous situations and hazardous events are covered are indicated in the scope of this document.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for vehicles that have been designed and built according to the provisions of this type C standard.

SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f... fa78546beb93/sist-en-16990-2020

SIST EN 16990:2020

1 Scope

This document applies to Side by Side vehicles propelled by internal combustion engines using liquid fuels (petrol, diesel, bio-fuels, lpg) and/or electric drive, intended to be used primarily on unpaved surfaces and not intended to be used on public roads[1].

This document defines safety requirements relating to the elements of design, operation, and maintenance of Side by Side vehicles and deals with all significant hazards, hazardous situations and events relevant to Side by Side vehicles, when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Annex M). It deals with the significant hazards during the whole lifecycle of the product as defined in 5.3 of EN ISO 12100:2010,

This document is not dealing with:

— Side by Side Vehicles exclusively intended for competition[2];

— Side by Side Vehicles fitted with side facing seats

— Side by Side Vehicles intended to be operated by persons under the age of 14 years;

— agricultural and forestry tractors coming under Regulation (EU)167/2013;

— 3 or 4 wheeled vehicles coming under Regulation (EU)168/2013;

— accessories for additional functions[3];

— the additional hazards due to the use of the Side by Side Vehicle on public roads;

— the additional hazards due to the use of remote control.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f0dfd-da69-4536-a51c-f4f6540eeb95/sist-en-16990-2020

This document is not intended to cover all terrain vehicles (ATVs - Quads) as defined by EN 15997:2011.

This document is not applicable to Side by Side vehicles which are manufactured before the date of its publication as EN.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

CEN/TR 15172-1, *Whole-body vibration - Guidelines for vibration hazards reduction - Part 1: Engineering methods by design of machinery*

CR 1030-1, Hand-arm vibration — Guidelines for vibration hazards reduction — Part 1: Engineering methods by design of machinery

[1] In general, vehicles intended for use on public roads have to fulfil specific requirements and/or require official “type-approval”.

[2] The main criterion to be applied to judge whether vehicles are to be considered as exclusively intended for competition is whether they are designed according to the technical specifications laid down by one of the officially recognised racing associations.

[3] Towing hook and load carrying provisions remaining within the vertical projection onto the ground of the vehicle are not considered as accessories.

SIST EN 16990:2020

EN 614-1:2006+A1:2009, *Safety of machinery - Ergonomic design principles - Part 1: Terminology and general principles*

EN ISO 11201:2010, *Acoustics - Noise emitted by machinery and equipment - Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections (ISO 11201:2010)*

EN 14930:2007+A1:2009, *Agricultural and forestry machinery and gardening equipment - Pedestrian controlled and hand-held machines - Determination of accessibility of hot surfaces*

EN 60335-2-29:2004, *Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers*

EN 61310-1:2008, *Safety of machinery - Indication, marking and actuation - Part 1: Requirements for visual, acoustic and tactile signals*

EN ISO 3471:2008, *Earth-moving machinery - Roll-over protective structures - Laboratory tests and performance requirements (ISO 3471:2008)*

EN ISO 3744:2010, *Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)*

EN ISO 4871:2009, *Acoustics - Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

EN ISO 5349-1:2001, *Mechanical vibration - Measurement and evaluation of human exposure to hand-transmitted vibration - Part 1: General requirements (ISO 5349-1:2001)*

SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f0dfd-da69-4536-a51c-

EN ISO 8041:2005, *Human response to vibration - Measuring instrumentation (ISO 8041:2005)*

ff7854bbc073/sist-en-16990-2020

EN ISO 11688-1:2009, *Acoustics - Recommended practice for the design of low-noise machinery and equipment – Planning (ISO/TR 11688-2:1995)*

EN ISO 12100:2010, *Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 13857:2008, *Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)*

EN ISO 14120:2015, *Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards (ISO 14120:2015)*

ISO 3463:2006, *Tractors for agriculture and forestry — Roll-over protective structures (ROPS) — Dynamic test method and acceptance conditions*

ISO 5006:2017, *Earth-moving machinery — Operator's field of view — Test method and performance criteria*

ISO 5348:1998, *Mechanical vibration and shock — Mechanical mounting of accelerometers*

ISO 5700:2013, *Roll-over protective structures (ROPS) (cab or frame) of wheeled or tracked tractors for agriculture and forestry - Static test method and acceptance conditions*

SIST EN 16990:2020

ISO 12003-1:2008, *Roll-over protective structures (ROPS) Front Mounted on narrow-track wheeled agricultural and forestry tractors - Procedures for both static and dynamic testing*

ISO 12003-2:2008, *Roll-over protective structures (ROPS) Rear Mounted on narrow-track wheeled agricultural and forestry tractors - Procedures for both static and dynamic testing*

OECD test code 3, OECD standard code for the official testing of protective structures on agricultural and forestry tractors (dynamic test) *(Edition 2015 – July 2014)*

OECD test code 4, OECD standard code for the official testing of protective structures on agricultural and forestry tractors (static test) *(Edition 2015 – July 2014)*

OECD test code 6, OECD standard code for the official testing of front mounted roll-over protective structures on narrow-track wheeled agricultural and forestry tractors *(Edition 2015 – July 2014)*

OECD test code 7, OECD standard code for the official testing of rear mounted roll-over protective structure on narrow-track wheeled agricultural and forestry tractors *(Edition 2015 – July 2014)*

SAE J 141 *(JUN 95), Seat Belt Hardware – Performance Requirements*

SAE J 383 *(201303), Motor Vehicle Seat Belt Anchorages – Design Recommendations*

SAE J 384 *(JUN 94), Motor Vehicle Seat Belt Anchorages – Test Procedures*

SAE J 386 *(201208), Operator Restraint System for Off-Road Work Machines*

SAE J 2292 *(200612 or JAN 2016), Combination Pelvic/Upper Torso (Type 2) Operator Restraint Systems for Off-Road Work Machines*

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f0dfd-da69-4536-a51c-fa78546beb93/sist-en-16990-2020

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
Side by Side vehicle
SbS
self-propelled, operator-controlled, non-articulated vehicle operable on four or more wheels, with a gross vehicle mass of 2000 kg or less, a minimum mass in running order of 300 kg and a maximum design speed of > 32 km/h, designed to transport persons and/or cargo and pull and push equipment where the operator and at least one passenger are sitting side by side on non-straddle seats

Note 1 to entry: A Side by Side vehicle is steered by a control other than a handlebar and is designed for recreational or utility purposes and carry no more than 6 occupants.

3.2
brake lever or
handle
hand-operated control which, when activated, causes the brake(s) to be applied

SIST EN 16990:2020

3.3
brake pedal
foot-operated control which, when activated, causes the brake(s) to be applied

3.4
steering system
includes the steering control, the column, the mechanism which links the column to the wheels and any powered assistance

Note 1 to entry: A steering control is a part directly operated by the operator in order to steer the vehicle.

3.5
engine stop switch
device used to stop engine operation

3.6
transmission control
control for selecting gears, forward, neutral, reverse and overall transmission ranges

3.7
manual fuel shut-off control
manual device designed to turn the fuel flow from the fuel tank on and off

3.8
speed control pedal
vehicle speed control increases or decreases forward or rearward travel speed

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f0dfd-da69-4536-a51c-

3.9
cargo area
rack or other designated area intended by the manufacturer to carry cargo on the SbS

3.10
tongue mass
vertical mass on towing device coupling point

3.11
towing device
device used for the attachment of a trailer or other equipment

3.12
Mass in Running Order
MRO
total mass of an SbS, including a full load of fuel, oil, batteries and coolant, but without any operator, passenger, accessories, attachments or cargo

3.13
wheelbase
L
longitudinal distance from the centre of the front axle to the centre of the rear axle

3.14
wheel travel
displacement of a reference point on the suspension (such as the wheel axle) from when the suspension is fully extended (no force applied) to when it is fully compressed

SIST EN 16990:2020

3.15
brake stopping distance
S
distance travelled by a SbS from the start of a brake application to the point which the SbS reaches a complete stop

3.16
braking deceleration
rate of change of SbS speed from the point of initial brake application to the point where the SbS stops

Note 1 to entry: Mean fully developed deceleration (MFDD) is defined as the average deceleration between 80 % of the vehicle test speed and 10 % of the vehicle test speed.

3.17
manual clutch
device activated by the operator to disengage the engine from the gearbox

3.18
mechanical suspension
system which permits vertical motion of a SbS wheel to the chassis and provides spring and damping forces

3.19
neutral
designated transmission position where there is no continuity or direct mechanical connection between transmission input and output

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f0dfd-da69-4536-a51c-fa7634b6e695/sist-en-16990-2020

3.20
parking brake
brake system which, after actuation, holds one or more brakes continuously in an applied position using purely mechanical means without further action

3.21
parking mechanism
drive train system that locks the drive train when the transmission control is placed in a designated park position

3.22
service brake
main brake system consisting of the control, the transmission and the brake proper whose function is to progressively reduce the speed of a moving vehicle or to bring it to a halt

3.23
secondary brake
brake system that makes it possible by application of the service brake control to halt the vehicle within a reasonable distance in the event of failure of the service braking system

3.24
speed limiting device
device intended to limit the maximum speed of a vehicle

3.25
electric powered vehicle
SbS which is equipped with one or more electric traction motor(s) operated solely or in combination with another power source

SIST EN 16990:2020

3.26
electric starter interlock
device that prevents the SbS engine from being started by electric cranking, or the electric motor from being energised under certain conditions

3.27
ignition system
system in a spark-ignited internal combustion engine that ignites the mixture by producing a spark

3.28
instructions handbook
publication supplied by the manufacturer as part of the SbS, which provides information and instruction regarding use, operation, care, and maintenance of the SbS

3.29
accelerator
device that controls the speed of the vehicle

3.30
accessory
SbS manufacturer supplied/approved optional and supplementary part to enhance the use of a SbS

Note 1 to entry: examples are tyre chains, canopy, lights, cab, etc. It does not include attachments.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

3.31
attachment
SbS manufacturer supplied/approved components designed primarily to perform a specific task and for mounting on a vehicle, utilising the vehicle's power and/or control system

SIST EN 16990:2020
https://standards.iteh.ai/catalog/standards/sist/a86f0dfd-da69-4536-a51c-fa78546beb93/sist-en-16990-2020

3.32
battery-electric vehicle
electric vehicle in which the power source is a storage battery(s)

3.33
body restraint
hand hold or combination hand hold/hip restraint, anchored securely to the body or seat platform of the vehicle creating a barrier to help prevent an occupant from sliding out of the vehicle

Note 1 to entry: This does not include seat belts.

3.34
battery
container consisting of one or more cells, in which chemical energy is converted into electricity and used as a source of power

3.35
Gross Vehicle Mass
GVM
maximum stated mass including operating weight, material load, personnel, options, accessories, and attachments

3.36
hand hold
readily accessible device mounted securely to the vehicle that can be encircled by the fingers of one hand for the purpose of holding on