APPENDIX DD
ADOPTION PROPOSAL FORM

**CPR183/F12**

**KENYA BUREAU OF STANDARDS**

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| **Document Type:** | **Adoption proposal** |
| **Dates:** | Circulation date | Closing date |
| 30th January 2024 | 29th February 2024 |
| **TC Secretary** | **This form shall be filled, signed and returned to Kenya Bureau of Standards for the attention of Betty Nkatha (**nkathab**@kebs.org****)**  |

The Kenya Bureau of Standards intends to adopt the International Standards as detailed here below

**KEBS TC 122: ROAD VEHICLES**

1. **Number:** ISO 23274-1:2019 to replace KS ISO 23274-1:2013

**Title:** Hybrid-electric Road vehicles — Exhaust emissions and fuel consumption measurements — Part 1: Non-externally chargeable vehicles

**Scope:** This document specifies a chassis dynamometer test procedure to measure the exhaust emissions and the electric energy and fuel consumption for the vehicles.

This document applies to vehicles with the following characteristics:

— vehicles classified as passenger cars or light duty trucks, as defined in the relevant regional applicable driving test (ADT) standard;

— the nominal energy of the rechargeable energy storage system (RESS) is at least 2 % of the total energy consumption over an ADT;

— internal combustion engine (ICE) only using liquid fuels (for example, gasoline and diesel fuel).

NOTE In the case of the vehicles with ICE using other fuel [for example, compressed natural gas (CNG), liquefied petroleum gas (LPG), hydrogen], this document can apply except the measurement of consumed fuel; otherwise the measurement method for those using the corresponding fuel can apply.

This document proposes procedures for correcting the measured emissions and fuel consumption of hybrid-electric vehicles (HEVs), in order to obtain the values when the state of charge (SOC) of the RESS does not remain the same between the beginning and the end of an ADT.

It can also be applied to measurement procedures for exhaust emissions and fuel consumption of externally chargeable HEVs when a vehicle is not externally charged and operated only in the charge sustaining (CS) state, as described in ISO 23274-2.

<https://www.iso.org/obp/ui/en/#iso:std:iso:23274:-1:ed-2:v1:en>

1. **Number**: ISO 23274-2:2021 to replace KS ISO 23274-2:2012

**Title:** Hybrid-electric road vehicles — Exhaust emissions and fuel consumption measurements — Part 2: Externally chargeable vehicles

**Scope:** This document specifies a chassis dynamometer test procedure to determine the end of the charge-depleting state (CD) and consumed electric energy during CD state.

The identification of the end of the CD state is an important step for procedures to determine exhaust emissions and fuel consumption. Final determination of exhaust emissions and fuel consumption is not included in this document.

This document applies to vehicles with the following characteristics.

— The vehicles are hybrid-electric road vehicles (HEV) with an internal combustion engine (ICE) and an on-board rechargeable energy storage system (RESS) for vehicle propulsion which is supplied with electric energy from an external electric power source.

— A CD state, in which the electric energy in the RESS from an external electric power source is consumed, is followed by a charge-sustaining (CS) state in which the fuel energy is consumed sustaining the electric energy of the RESS.

— Only batteries are assumed as the RESS of a vehicle.

— The RESS is not charged while driving unless by regenerative braking and/or by generative operation driven via the ICE.

— External charge for the purpose of conditioning of the RESS is not included.

NOTE 1 Trolleybuses and solar powered vehicles are not included in the scope.

— The vehicle is classified as a passenger car or light duty truck, as defined in the relevant regional applicable driving test (ADT) standard.

— For the ICE, only liquid fuels (for example, gasoline and diesel fuel) are used.

NOTE 2 In the case of vehicles with ICE using other fuel [for example, compressed natural gas (CNG), hydrogen (H2)], this document can apply except the measurement of consumed fuel; otherwise the measurement method for those using the corresponding fuel can apply.

— The nominal energy of the RESS is at least 2 % of the total energy of consumed fuel over an ADT

<https://www.iso.org/obp/ui/en/#iso:std:iso:23274:-2:ed-2:v1:en>

1. **Number**: ISO 13232-1:2005/Amd 1:2012

**Title:** Motorcycles — Test and analysis procedures for research evaluation of rider crash protective devices fitted to motorcycles — Part 1: Definitions, symbols and general considerations AMENDMENT 1: MATD test helmet, ground impact, and injury costs

**Scope:** This part of ISO 13232 provides the definitions, abbreviations, symbols and other general considerations used in all parts of ISO 13232, which specifies the minimum requirements for research into the feasibility of protective devices fitted to motorcycles, which are intended to protect the rider in the event of a collision.

ISO 13232 is applicable to impact tests involving:

— two-wheeled motorcycles;

— the specified type of opposing vehicle;

— either a stationary and a moving vehicle or two moving vehicles;

— for any moving vehicle, a steady speed and straight-line motion immediately prior to impact;

— one helmeted dummy in a normal seating position on an upright motorcycle;

— the measurement of the potential for specified types of injury by body region;

— evaluation of the results of paired impact tests (i.e. comparisons between motorcycles fitted and not fitted with the proposed devices).

ISO 13232 does not apply to testing for regulatory or legislative purposes.

<https://www.iso.org/obp/ui/en/#iso:std:iso:13232:-1:ed-2:v1:amd:1:v1:en>

1. **Number**: ISO 13232-3:2005/Amd 1:2012

**Title:** Motorcycles — Test and analysis procedures for research evaluation of rider crash protective devices fitted to motorcycles — Part 3: Motorcyclist anthropometric impact dummy AMENDMENT 1: MATD test helmet

**Scope:** This part of [ISO 13232](https://www.iso.org/obp/ui/en/#iso:std:iso:13232:en) specifies the minimum requirements for the:

* — biofidelity of the motorcyclist anthropometric impact dummy;
* — compatibility of the dummy with motorcycles, helmets, multi-directional impacts, and the instrumentation;
* — repeatability and reproducibility of the dummy properties and responses.

[ISO 13232](https://www.iso.org/obp/ui/en/#iso:std:iso:13232:en) specifies minimum requirements for research into the feasibility of protective devices fitted to motorcycles, which are intended to protect the rider in the event of a collision.

[ISO 13232](https://www.iso.org/obp/ui/en/#iso:std:iso:13232:en) is applicable to impact tests involving:

* — two-wheeled motorcycles;
* — the specified type of opposing vehicle;
* — either a stationary and a moving vehicle or two moving vehicles;
* — for any moving vehicle, a steady speed and straight-line motion immediately prior to impact;
* — one helmeted dummy in a normal seating position on an upright motorcycle;
* — the measurement of the potential for specified types of injury, by body region;
* — evaluation of the results of paired impact tests (i.e. comparisons between motorcycles fitted and not fitted with the proposed devices).

[ISO 13232](https://www.iso.org/obp/ui/en/#iso:std:iso:13232:en) does not apply to testing for regulatory or legislative purposes.

<https://www.iso.org/obp/ui/en/#iso:std:iso:13232:-3:ed-2:v1:amd:1:v1:en>

1. **Number**: ISO 13232-5:2005/Amd 1:2012

**Title:** Motorcycles — Test and analysis procedures for research evaluation of rider crash protective devices fitted to motorcycles — Part 5: Injury indices and risk/benefit analysis AMENDMENT 1: Ground impact and injury costs

**Scope:** This part of ISO 13232 provides:

— performance indices which can be correlated with human injuries;

— formulae which relate injury indices to probable injury cost;

— a consistent means of interpreting impact test results;

— a means of relating the results obtained from film analysis and instrumentation of the dummy to injuries sustained in accidents;

— a means of assessing both the combined and relative effects of multiple injuries;

— an objective means of quantifying injury cost using a single index;

— a means of verifying the analysis; and

— a means of doing risk/benefit analysis of protective devices fitted to motorcycles, based upon the population of impact conditions identified in ISO 13232-2.

ISO 13232 specifies the minimum requirements for research into the feasibility of protective devices fitted to motorcycles, which are intended to protect the rider in the event of a collision.

ISO 13232 is applicable to impact tests involving:

— two-wheeled motorcycles;

— the specified type of opposing vehicle;

— either a stationary and a moving vehicle or two moving vehicles;

— for any moving vehicle, a steady speed and straight-line motion immediately prior to impact;

— one helmeted dummy in a normal seating position on an upright motorcycle;

— the measurement of the potential for specified types of injury, by body region;

— evaluation of the results of paired impact tests (i.e. comparisons between motorcycles fitted and not fitted with the proposed devices).

ISO 13232 does not apply to testing for regulatory or legislative purposes

<https://www.iso.org/obp/ui/en/#iso:std:iso:13232:-5:ed-2:v1:amd:1:v1:en>

1. **Number**: ISO 13232-6:2005/Amd 1:2012

**Title:** Motorcycles — Test and analysis procedures for research evaluation of rider crash protective devices fitted to motorcycles — Part 6: Full-scale impact-test procedures AMENDMENT 1: MATD test helmet

**Scope:** This part of ISO 13232 specifies minimum requirements for:

— paired comparison tests;

— the preparation of the dummy, motorcycle and opposing vehicle;

— the repeatability and reproducibility of impact test conditions within and between test sites;

— the minimization of variation in secondary test variables;

— realistic and representative impact conditions for full-scale impact tests;

— a means to verify analytical evaluations of proposed rider crash protective devices fitted to motorcycles, such as computer simulation.

ISO 13232 specifies the minimum requirements for research into the feasibility of protective devices fitted to motorcycles, which are intended to protect the rider in the event of a collision.

ISO 13232 is applicable to impact tests involving:

— two-wheeled motorcycles;

— the specified type of opposing vehicle;

— either a stationary and a moving vehicle or two moving vehicles;

— for any moving vehicle, a steady speed and straight-line motion immediately prior to impact;

— one helmeted dummy in a normal seating position on an upright motorcycle;

— the measurement of the potential for specified types of injury by body region;

— evaluation of the results of paired impact tests (i.e. comparisons between motorcycles fitted and not fitted with the proposed devices);

— evaluation of inflatable/triggered protective device.

ISO 13232-6 does not apply to testing for regulatory or legislative purposes.

<https://www.iso.org/obp/ui/en/#iso:std:iso:13232:-6:ed-2:v1:amd:1:v1:en>

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1. **Number**: ISO 13232-7:2005/Amd 2:2023

**Title:** Motorcycles — Test and analysis procedures for research evaluation of rider crash protective devices fitted to motorcycles — Part 7: Standardized procedures for performing computer simulations of motorcycle impact tests — AMENDMENT 2: Correlation factors

**Scope:** The purposes of this part of ISO 13232 are to provide:

— conventions for calibrating and documenting the important features of the simulation models;

— guidelines for definition and use of mathematical models for motorcycle impact simulations, which can be correlated against data for full-scale tests;

— a means for identifying possible additional impact conditions for full-scale testing; and

— a standardized tool, of optional use, for risk/benefit analysis of rider crash protective devices fitted to motorcycles, based upon the population of impact conditions identified in ISO 13232-2.

ISO 13232 specifies the minimum requirements for research into the feasibility of protective devices fitted to motorcycles, which are intended to protect the rider in the event of a collision.

ISO 13232 is applicable to impact tests involving:

— two-wheeled motorcycles;

— the specified type of opposing vehicle;

— either a stationary and a moving vehicle or two moving vehicles;

— for any moving vehicle, a steady speed and straight-line motion immediately prior to impact;

— one helmeted dummy in a normal seating position on an upright motorcycle;

— the measurement of the potential for specified types of injury by body region;

— evaluation of the results of paired impact tests (i.e. comparisons between motorcycles fitted and not fitted with the proposed devices).

ISO 13232 does not apply to testing for regulatory or legislative purposes.

<https://www.iso.org/obp/ui/en/#iso:std:iso:13232:-7:ed-2:v1:amd:2:v1:en>

1. **Number**: ISO 28981:2009/Amd 1:2015

**Title:** Mopeds - Methods for setting the running resistance on a chassis dynamometer AMENDMENT 1

**Scope:** This document specifies a test method to evaluate energy performance of electric motorcycles and mopeds by measuring performance of a test motor system (3.4) to be installed to an electric moped or motorcycle under consideration.

The test is carried out on a motor dynamometer test bench where the traction motor system is connected to a load motor system (3.3) that simulates resistance torque arising from running resistance of vehicle and drive train friction loss and inertia effect.

This method provides estimates of specific energy consumption and range of an electric moped or motorcycle to which the traction motor system is intended to be applied.

This document is only applicable to two-wheeled motorcycles and mopeds.

NOTE This test method is applicable to motorcycle or moped regardless of types of power transmission devices, such as chains, belts, gears, ratio controllable CVTs, shaft drives, direct drives, etc., once gear ratios (ratio of input to output speed) and transmission efficiencies (ratio of input to output torque) are provided.

<https://www.iso.org/obp/ui/en/#iso:std:iso:28981:ed-1:v1:amd:1:v1:en>

1. **Number**: ISO 20766-6:2019/Amd 1:2022

**Title:** Road vehicles — Liquefied petroleum gas (LPG) fuel systems components — Part 6: Pressure relief valves (PRV) — AMENDMENT 1

**Scope:** This document specifies general requirements and definitions of liquefied petroleum gas fuel components, intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles, and specifies requirements for instructions and marking.

This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using gaseous fuels in accordance with ISO 9162. It is not applicable to the following:

a) fuel containers;

b) stationary gas engines;

c) container mounting hardware;

d) electronic fuel management; and

e) refuelling receptacles.

NOTE 1 It is recognized that miscellaneous components not specifically addressed herein can be examined for compliance with the criteria of any applicable part of ISO 20766, including testing to the appropriate functional tests.

NOTE 2 All references to pressure in this document are considered gauge pressures unless otherwise specified.

NOTE 3 This document applies to devices which have a service pressure in the range of 110 kPa (Butane rich at 20 °C) and 840 kPa (Propane at 20 °C), hereinafter referred to in this document.

Other service pressures can be accommodated by adjusting the pressure by the appropriate factor (ratio).

<https://www.iso.org/obp/ui/en/#iso:std:iso:20766:-6:ed-1:v1:amd:1:v1:en>

We are therefore seeking views from potential users in respect of the same. The Standard is available at the Kenya Bureau of Standards Information Centre. Please tick and fill your preference of the listed option. (If the spaces provided are not enough, please attach a separate sheet of paper).

 Adoption acceptable as presented

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 Adoption proposal not acceptable because of the reason(s) below

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 Our Recommendations are as follows

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Name and Signature (of respondent): ................................................

Position (of respondent): .....................................

On behalf of ......................................................................................... (Name of organization)

Date .........................................................................

**NOTE:** Absence of any reply or comments shall be deemed to be an acceptance of the proposal for adoption and **shall constitute an approval vote**.