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**Test methods for Energy Consumption of Heavy-Duty
Hybrid Electric Vehicles**
重型混合动力电动汽车能量消耗量试验方法

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Test methods for Energy Consumption of Heavy-Duty Hybrid Electric Vehicles

1 SCOPE

This document specifies the test methods for measuring energy consumption of heavy-duty hybrid electric vehicles (HD-HEV) on the chassis dynamometer.

This document applies to the hybrid electric vehicles (HEV) with a maximum total mass exceeding 3,500 kg, including trucks, tractor-trailers, coaches, dumpers, and urban buses. The concrete mixing carriers may refer to the measuring methods for dumpers, while other special purpose transportation vehicles may refer to the measuring methods for trucks.

This document applies to the vehicles fuelled with gasoline or diesel, while vehicles using other type of fuel may use this document as a reference.

This document doesn't apply to special motor vehicles, including special goods vans, special goods tankers, special tippers, special goods box/stake trucks, special goods crane/lift trucks, and special goods special construction vehicles.

2 NORMATIVE REFERENCES

The following documents contain provisions which, through reference in this text, constitute essential provisions of this document. For dated references, only the editions cited apply. For undated references, the latest editions of the normative document (including any amendments) apply.

GB/T 1884	Crude Petroleum and Liquid Petroleum Products - Laboratory Determination of Density - Hydrometer Method
GB/T 3730.1	Motor vehicles and trailers - Types - Terms and definitions
GB/T 12534	Motor vehicles - General rules of road test method
GB/T 15089	Classification of power-driven vehicles and trailers
GB 17691-2018	Limits and measurement methods for emissions from diesel fuelled heavy-duty vehicles (CHINA VI)
GB 18352.6-2016	Limits and measurement methods for emissions from light-duty vehicles (CHINA 6)
GB/T 19596	Terminology of Electric Vehicles
GB/T 27840	Fuel consumption test methods for heavy-duty commercial vehicles
GB/T 38146.2-2019	China Automotive Test Cycle - Part 2: Heavy-Duty Commercial Vehicles

3 TERMS AND DEFINITIONS

For the purposes of this document, the terms and definitions given in GB/T 3730.1, GB/T 15089, GB/T 19596 and GB/T 38146.2-2019 apply.

4 CALCULATION METHODS OF NET ENERGY CHANGE (NEC)

4.1 General Requirements

The energy change of the rechargeable energy storage system (REESS) shall be monitored during vehicle moving and testing.

4.2 Determination of the NEC

4.2.1 NEC of traction battery

The NEC of traction battery is calculated according to Equations (1) to (3):



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