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NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

GB/T 19515-2015

Replacing GB/T 19515-2004

Road vehicles - Recyclability and recoverability - Calculation method

道路车辆 可再利用率和可回收利用计算方法

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Foreword

This Standard was drafted in accordance with rules given in GB/T 1.1-2009.

This Standard replaces GB/T 19515-2004 / ISO 22628:2002 "Road vehicles - Recyclability and recoverability - Calculation method". Compared with GB/T 19515-2004, the main technical changes are as follows:

- The standard name was revised to "Road vehicles - Recyclability and recoverability - Calculation method";
- ADD the definition of "Proven technology of automobile material";
- DELETE some of the terms;
- ADD some parts in the "pretreatment stage" and "dismantling stage".

The Standard was proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This Standard shall be under the jurisdiction of the National Automotive Standardization Technical Committee (SAC/TC 114).

Drafting organizations of this Standard: Pan Asia Technical Automotive Center Co., Ltd., China Automotive Technology and Research Center, Shanghai Volkswagen Automotive Co., Ltd.

Main drafters of this Standard: Liu Shuwen, Guo Miao, Hao Lianqingjun, Huang Xiaohan, Zhang Tongzhu, Shen Jian, Liu Bin.

The previous edition replaced by this Standard is as follows:

- GB/T 19515-2004.

Road vehicles - Recyclability and recoverability - Calculation method

1 Scope

This Standard specifies the calculation method of recyclability and recoverability of newly manufactured road vehicles, and parts and materials that shall be considered to be recyclable and recoverable at each stage when calculating.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this document.

GB/T 3730.2 Road vehicle - Masses - Vocabulary and codes

GB/T 26989 Automobile recovery - Terminology

3 Terms and Definitions

The following terms and definitions and those defined in GT/T 26989 and GB/T 3730.2 apply to this document.

3.1

Vehicle mass

The mass of vehicles on running, without drivers, passengers and cargoes, but the fuel tank is added with fuel takes up 90% of its total capacity, and with hand tools and spare wheel (if these are provided by the vehicle manufacturer as standard equipment).

Note: equivalent to the vehicle curb mass specified in GB/T 3730.2.

3.2

Proven technology of automobile material

Currently existing recycling technology of automobile materials that has achieved

5.3.1.3 DETERMINE the total mass m_P of these parts and materials.

5.3.2 Dismantling - determining m_D

5.3.2.1 At this stage, it can base on the following principles, to consider that some other parts on the vehicle that are deemed as recyclable and recoverable.

5.3.2.2 As general requirements, recyclability and/or recoverability of parts is based on their dismantling characteristic. The dismantling characteristic of parts shall be assessed by the following aspects:

- a) accessibility;
- b) fastening technology;
- c) proven dismantling technology.

5.3.2.3 As the specific requirements, and based on the following conditions, the parts can be deemed as recyclable:

- a) composition of part materials;
- b) proven recycling technology of automotive materials.

5.3.2.4 Disassembled parts shall meet two requirements at the same time:

- a) parts or materials meet dismantling characteristic;
- b) disassembled parts can be recycled or recovered.

5.3.2.5 Parts that can be disassembled include, but are not limited to: front bumper skin, rear bumper skin, threshold outer trim panels, threshold interior trim panels, A/B/C pillar trim panels, grille, spoiler, trunk side trim panels, sun visors, radiator, glass without PVB interlayers.

5.3.2.6 Additional requirements: when determining recyclability of parts, the safety and environmental protection shall meet the requirements of the relevant national laws and regulations, and technical standards.

5.3.2.7 After determining the list of parts that can be disassembled, it can determine the total mass m_D of recyclable parts.

5.3.3 Metal separation - determining m_M

5.3.3.1 At this stage, it mainly considers all metals that are not considered at the first two stages. Metallic parts are deemed as recyclable.

5.3.3.2 After the previous processing stage, m_M is the metal mass that are still retained

	1		m_{Tr1}				
	2		m_{Tr2}				
	3		m_{Tr3}				
	4 to N^a		m_{Tr4-n}				
						Total m_{Tr} (from m_{Tr1} to m_{Trn}) =	
	Materials that can be done with energy recovery (m_{Te})					Mass/kg	
	Residue of organic material (include polymer, rubber, modified organic natural material, etc.)					$m_{Te} =$	
Recyclability	$R_{cyc} = (m_P + m_D + m_M + m_{Tr}) / m_N \times 100\%$						
Recoverability	$R_{cov} = (m_P + m_D + m_M + m_{Tr} + m_{Tr}) / m_N \times 100\%$						
^a LIST a separate list for additional parts or technologies.							

^a At the 4th stage, the distribution of 3 treatment possibilities is declared by the vehicle manufacturer.

_____ **END** _____

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