



Clean Transportation Program Brief

October 2016

China Light-duty Vehicle Fuel Economy Label standard and management update

China's "Fuel consumption label for light vehicle" (GB 22757), aimed at enhancing consumers' fuel efficiency and fuel cost saving awareness and enforced as of July 2009¹, underwent revisions led by the Auto Standard Research Institute, operating under China Automotive Technology and Research Center (CATRAC). The new draft standard has recently entered the Standards Administration Council (SAC) final approval process². The new label standard includes not only ICE fuel consumption information, but also NEVs electricity consumption³.

The fuel economy labeling regulation requires all light-duty vehicles (M1, M2, N1 type) with a curb weight of less than 3,500kg to have a fuel economy label placed at the front or side window of a vehicle when introduced for sale. The label includes the vehicle's fuel consumption under urban conditions (市区工况), suburban conditions (市郊工况), as well as combined driving conditions (综合工况)⁴.

The new labelling standard draft (2016), in comparison to the current standard (2008), highlights urban cycle fuel consumption instead of combined driving-cycle fuel consumption, following recognition of the gap between reported and real-world fuel consumption, stemming from the higher urban/rural rides ratio that is represented in the type-approval test cycle (NEDC). A fuel comparison bar was added to indicate how well the FC of the particular model is as oppose to China's average fleet (similar to the label enacted in the US).

¹ <http://www.miit.gov.cn/n11293472/n11293832/n11294282/n14295524.files/n14295523.pdf>

² <http://www.catarc.org.cn/Upload/file/bzyj/PDF/zhengqiuyijian-sc32-2-1.pdf>

³ <http://www.catarc.org.cn/Upload/file/bzyj/PDF/zhengqiuyijian-sc32-2-2.pdf>

⁴ <http://chinaafc.miit.gov.cn/n2257/n2339/c63900/content.html>

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企业标志 **汽车燃料消耗量标识**
AUTOMOBILE FUEL CONSUMPTION LABEL

生产企业:
车辆型号:
发动机号:
排量: mL
变速器类型:
整车整备质量: kg
其他信息:

燃料类型:
额定功率: kW
驱动型式:
最大设计总质量: kg

燃料消耗量

市区工况: XX.X L/100 km
综合工况: **XX.X** L/100 km
市郊工况: XX.X L/100 km

适用国家标准为GB XXXX-XXXX:
第X阶段要求自XXXX年XX月XX日开始执行,
对应限值为XX.X L/100 km;
第X阶段要求自XXXX年XX月XX日开始执行,
对应限值为XX.X L/100 km.

说明
本标识所采用的燃料消耗量数据系根据GB/T 19233-2008《轻型汽车燃料消耗量试验方法》测定。
由于驾驶习惯、道路状况、气候条件和燃料品质等因素的影响,实际燃料消耗量可能与本标识的燃料消耗量不同。
为避免标识影响视野,请在购买车辆后去除此标识。

备案号: 启用日期: XXXX年XX月XX日

企业标志 **汽车能源消耗量标识**
AUTOMOBILE ENERGY CONSUMPTION LABEL

生产企业:
车辆型号:
排量: mL
燃料类型:
驱动型式:
最大设计总质量: kg
其他信息:

发动机型号:
最大净功率: kW
变速器类型:
整车整备质量: kg

市郊工况: XX.X L/100km
市区工况: **XX.X** L/100km
综合工况: XX.X L/100km

本车综合燃料消耗量低于限值 **XX.X** %

XX.X

说明
本标识所采用的燃料消耗量数据系根据GB/T 19233-2008《轻型汽车燃料消耗量试验方法》测定。
由于驾驶习惯、道路状况、气候条件和燃料品质等因素的影响,实际燃料消耗量可能与本标识的燃料消耗量不同。
为避免标识影响视野,请在购买车辆后去除此标识。

备案号: 启用日期: 年 月 日

Manufacturer Logo **汽车燃料消耗量标识**
AUTOMOBILE FUEL CONSUMPTION LABEL

Manufacturer:
Vehicle Model:
Engine Model:
Engine Displacement: (mL)
Transmission:
Curb weight: (kg)
Other:

Fuel type:
Rated Power:
Drive type:
Max designed mass: (kg)

Fuel consumption

Urban cycle: L/100 km
Combined cycle: **X** L/100 km
Suburban cycle: L/100 km

Apply to national mandatory standard
GB19578-2014, enforced from Jan. 1st, 2016.
The fuel limit for this model is XXX L/100km

Note:
The labelled fuel consumption should be tested based on GB/T 19233-2008.
The real fuel consumption might differ from the label, due to factors such as driving conditions, weather, oil quality etc.
Please remove the label once sold, avoiding sight disturbance.
Record No. Date: xxxx

Manufacturer Logo **汽车能源消耗量标识**
AUTOMOBILE ENERGY CONSUMPTION LABEL

Manufacturer:
Vehicle Model:
Engine Model:
Engine Displacement: (mL)
Transmission:
Max designed mass: (kg)
Other:

Engine Model:
Max net power: (kW)
Transmission type:
Curb weight: (kg)

Suburban cycle: XX.X L/100km
Urban cycle: **XX.X** L/100km
Combined cycle: XX.X L/100km

This car's FC is lower than its FC limit by XXX%

XX.X

说明
The labelled fuel consumption should be tested based on GB/T 19233-2008.
The real fuel consumption might differ from the label, due to factors such as driving conditions, weather, oil quality etc.
Please remove the label once sold, avoiding sight disturbance.
Record No. Date: xxxx

Record No. Date: 年 月 日

ICE vehicle Label: GB 22757-2008 (left) & GB 22757-2016 (right); Translated to English by iCET

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As plug-in electric vehicles and pure electric vehicles are increasing their market share market, a dedicated energy label was introduced as part of the new 2016 standard draft (see below). For PEVs, the combined driving-cycle electricity consumption (kwh/100km) and equivalent fuel consumption (L/100km) are listed as well as some basic vehicle information. For PHEVs, both fuel consumption and electricity consumption at both e-power and f-power modes are reported (right label as below). Driving range (e-km) is also required in the NEV labelling standard.

企业标志 汽车能源消耗量标识
AUTOMOBILE ENERGY CONSUMPTION LABEL

生产企业:
车辆型号:
驱动电机峰值功率: kW
整车整备质量: kg
其他信息:

能源类型: 纯电动
变速器类型:
最大设计总质量: kg

综合工况电能消耗量: **XX.X** kWh/100 km
当量燃料消耗量: **XX.X** L/100 km

续航里程: **XX** km

说明区: 本标识所采用的电能消耗量和续航里程数据系根据 GB/T 18386-2005《电动汽车能量消耗率和续驶里程试验方法》测定。电能消耗量与燃料消耗量的折算方法会随我国电力构成、发电效率以及传输效率等因素的变化而变化。由于驾驶习惯、道路状况、气候条件等因素的影响,实际电能消耗量可能与本标识的电能消耗量不同。

附加信息区: 备案号: 启用日期: 年 月 日

企业标志 汽车能源消耗量标识
AUTOMOBILE ENERGY CONSUMPTION LABEL

生产企业:
车辆型号:
能源种类:
排量:
驱动电机峰值功率: kW
整车整备质量: kg
其他信息:

发动机型号:
最大净功率: kW
变速器类型:
最大设计总质量: kg

燃料消耗量: **XX.X** L/100 km
电能消耗量: **XX.X** kWh/100 km
当量燃料消耗量: **XX.X** L/100 km
最高荷电状态下的电能消耗量: **XX.X** kWh/100 km
最低荷电状态下的燃料消耗量: **XX.X** L/100 km

纯电动续航里程: **XX** km

说明区: 本标识所采用的燃料消耗量、电能消耗量和续航里程数据系根据 GB/T 19753-2013《轻型混合动力电动汽车能量消耗量试验方法》测定。电能消耗量与燃料消耗量的折算方法会随我国电力构成、发电效率以及传输效率等因素的变化而变化。由于驾驶习惯、道路状况、气候条件和燃料品质等因素的影响,实际燃料消耗量和电能消耗量可能与本标识的燃料消耗量和电能消耗量不同。

附加信息区: 备案号: 启用日期: 年 月 日

Manufacturer Logo 汽车能源消耗量标识
AUTOMOBILE ENERGY CONSUMPTION LABEL

Manufacturer:
Vehicle Model:
Max electric engine power: (kW)
Curb weight: (kg)
Other:

Energy type: Full electric
Transmission type:
Total weight: (kg)

Electricity Energy Consumption (EEC) at Combined cycle: **X.X** kWh/100 km
Equivalent Fuel Consumption (FC): **XX.X** L/100 km

E-range: **XX** km

说明区: The labelled EEC and E-range should be tested based on GB/T 18386-2005. The EEC and FC convert factor might change with electricity structure and efficiency improvement. The EEF and FC might differ to labelled, the impact factors including driving conditions, weather, oil quality, and so on.

附加信息区: 备案号: 启用日期: 年 月 日

Manufacturer Logo 汽车能源消耗量标识
AUTOMOBILE ENERGY CONSUMPTION LABEL

Manufacturer:
Vehicle Model:
Energy type:
Engine displacement:
Max electric engine power: (kW)
Curb Weight: (kg)
Other:

Engine model:
Max energy consumption: (kW)
Transmission type:
Max designed mass: (kg)

Fuel consumption(FC): **XXX** L/100km
Electric energy consumption(EEC): **XXX** kWh/100km
Equivalent FC level: **XXX** L/100km
EEC at Max electric load: **XXX** kWh/100km
FC at Min electric load: **L/100km**

E-range: **XX** km

说明区: The labelled FC, EEC and E-range should be tested based on GB/T 19573-2013. The EEC and FC convert factor might change with electricity structure and efficiency improvement. The EEF and FC might differ to labelled, the impact factors including driving conditions, weather, oil quality, and so on.

附加信息区: 备案号: 启用日期: 年 月 日

NEV Label: GB 22757-2016 for PEVs (left) and PHEVs (right); Translated by iCET

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At the end of 2015, MIIT authorized China Automotive Technology & Research Center (CATRAC) to develop an online labeling verification system⁵, through which vehicle manufacturers are able to submit each model's fuel consumptions data online. This new reporting method is meant to enter into implementation during Phase IV of the fuel economy standard, which entered into force in January 2016⁶. This reporting system joined China's automotive energy saving management regime, governed by the Ministry of Industry and Information Technology (MIIT): Light duty vehicle individual fuel consumption limit standards (GB19578, as of 2005) and cooperate average fuel consumption (CAFC) standards (GB27999, as of 2011).

⁵ www.catarc.org.cn/recordmanager

⁶ <http://www.miit.gov.cn/n1146295/n1652858/n1652930/n3757016/c4525118/content.html>

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