Clean Transportation Program Brief

September 2017

China Light-duty Vehicle Fuel Economy Label Standard Update

China's "Fuel consumption label for light-duty vehicles" (GB 22757), aimed at enhancing consumers' fuel efficiency and fuel cost saving awareness and enforced as of July 2009[1], underwent revisions led by the Auto Standard Research Institute, operating under China Automotive Technology and Research Center (CATRAC). The new standard has released on May 12th by the Standards Administration Council (SAC)[2]. The new label standard includes not only ICE fuel consumption information (namely, GB 22757.1-2017), but also NEVs electricity consumption (namely, GB 22757.2-2017)[3].

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 label also lists information such as vehicle manufacturer, series, weight and engine displacement (net power included), transmission and fuel, and drive type (AWD, RWD, 4WD etc.).

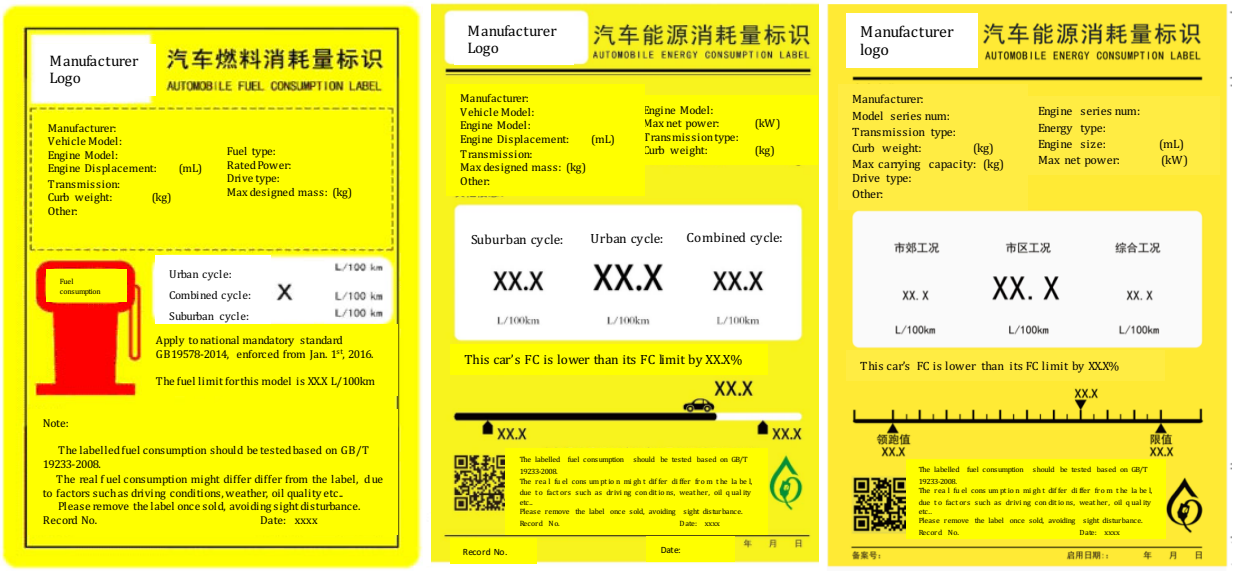
The new labelling standard, in comparison to the previous standard (2008), highlights urban cycle fuel consumption instead of combined driving-cycle fuel consumption, following recognition of the gap between reported and real-world fuel consumption. Also, a fuel consumption comparison bar was added to indicate how well the FC of the particular model in comparison to China's average fleet (similar to the label enacted in the US) and the vehicle weight-bin FC limit. The bar has a 'top runner fuel consumption' marking the FC of the top 5% of the models (left side of the bar) and the FC limit for the weight group marking the least performing (right side of the bar). In comparison to the standard draft released last year, the final version was re-designed (arguably to be clearly distinguished from the US standard style).

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

[2] http://www.gb688.cn/bzgk/gb/newGbInfo?hcno=84625054729FC25A75FA55B4B5A5485C

[3] http://www.gb688.cn/bzgk/gb/newGbInfo?hcno=FE50E9A9CD474E98FAD203236E267126

[4] http://chinaafc.miit.gov.cn/n2257/n2339/c63900/content.html



ICE vehicle Label: GB 22757-2008 (left), GB 22757.1-DRAFT (middle), GB 22757.1-2017 (right); Translated to English by iCET

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.

NEV Label: GB 22757.2-DRAFT for PEVs (left), GB 22757.2-2017 for PEVs (right); Main parts were translated to English by iCET

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NEV Label: GB 22757.2-DRAFT for PHEVs (left), GB 22757.2-2017 for PHEVs (right); Main parts were translated to English by iCET

At the end of 2015, MIIT authorized China Automotive Technology & Research Center (CATRAC) to develop an online labeling verification system[5], 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 force in January 2016[6]. 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 2014) and cooperate average fuel consumption (CAFC) standards (GB27999, as of 2014).

[5] www.catarc.org.cn/recordmanager

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