

Current Status of WLTP Durability Procedure

WLTP-27-05e

STATUS	items	Lv1a	Lv1b	Lv2	note
AGREED	Limit value	latest EU limit (4phases)	latest JPN limit (3phases)	Comply with both Lv1a/Lv1b	
AGREED	Fuel during durability mileage accumulation	suitable commercially available fuel			
OPEN	Durability family	unique	unique	under the discussion	EU/JPN are working on developing the harmonized family
AGREED	Durability test cycle (running pattern)	Operating cycle(6.1.) or Standard Road Cycle	allow following patterns (1) 60% or more of v<60km/h, 20% or more of v=100km/h), or (2) launch 20 times/h, 8% or more of v=100km/h, average speed > 45km/h (3) Code of Federal Regulations Title40 Chapter1 Part86 SubpartA (4) 70/220/EEC AnnexVII (5) EC No.692/2008 AnnexVII	Operating cycle(6.1.) or Standard Road Cycle	
AGREED	Useful life	160,000km	60,000km for light motor vehicles 80,000km for others	Lv2 vehicles need to comply with both EU limit @ 160K km and JPN limit @ 80K or 60K km	
OPEN	Test mass	test mass of the vehicle or more	vehicle mass+ 110kg (JPN will consider to change)	Test mass of the vehicle of WLTP	need to harmonize
OPEN	Test interval @ whole vehicle durability	0, 10k, 20k, ---, 160k km	5k, 20k, 40k, 60k(, 80k) km	under the discussion	consider effective procedure maintaining accuracy
AGREED	Interpolated point	linearize the test results and get interpolated point at 6,400km and 160,000km	linearize the test results and get interpolated point at 80,000km (60,000km for K car)	4phase: 6,400 and 160,000km 3phase: 3,000 and 80,000km (60,000km for light motor vehicles)	
AGREED	Judgement @ whole vehicle durability	interpolated points shall below the limit	interpolated points and all test results shall below the limit	interpolated points and all test results shall below the limit	
AGREED with possible modification	Assigned Deterioration Factor (ADF)	<PI engine> ADF(multiple ADF) CO: 1.5, THC: 1.3, NMHC: 1.3 NOx: 1.6, PM: 1.0, PN: 1.0 <CI engine> current : no ADF (OICA plan to propose ADF)	<Petrol fuel and LPG> AADF(additive ADF) CO: 0.11, NMHC: 0.12, NOx: 0.21, PM: 0.00 *no AADF for diesel fuel	4phase: EU ADF 3phase: JPN AADF (ADF and AADF should be applied separately)	
AGREED	Bench aging method	applicable	not applicable	not applicable	JPN has no plan to accept bench aging at the moment.