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Colfontaine, the 29th April 2022

# **INSPECTION REPORT**

Check of in-service conformity carried out by the granting type approval authority following the requirements of Article 9 and Annex II of Regulation EU 2017/1151 and 2018/1832.

File n° GE2/2022/0457

Report nº 0928/2022

	First name, Name	Function	Signature
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#### 1. Applicant:

Vlaamse overheid, Departement Mobiliteit en Openbare Werken Toegepast Mobiliteitsbeleid, Cel Homologatie

Address: Koning Albert II-laan 20, (bus 2), 1000 Brussels, Belgium

Subject: Check of in-service conformity carried out by the granting type approval authority following the requirements of Article 9 and Annex II of Regulation EU 2017/1151 and 2018/1832.

### 2. Dates of the testing campaign:

From Thursday 24<sup>th</sup> March 2022 to Thursday 22<sup>nd</sup> April 2022.

#### 3. Identification of families/vehicles tested:

Number of batch sample: 2

Sample size: 3

Manufacturer: Toyota Motor Europe NV/SA Make: LEXUS NX300H

ISC family: 6-JT1-38-0 VIN: xxxxxxxxxxx51881

xxxxxxxxxxx05420 xxxxxxxxxxxx03636

Manufacturer: Toyota Motor Europe NV/SA Make: LEXUS UX250H

ISC family: 6-JT1-27-2 VIN: xxxxxxxxxx66533

xxxxxxxxxxx70606 xxxxxxxxxxx55045

Remark: The vehicles identification numbers (VIN) are partially masked for confidentiality reasons.

#### 4. Used procedures and tests performed:

Check of in-service conformity following the requirements of Article 9 and Annex II of Regulation EU 2017/1151 and 2018/1832.

- Conformity check;
- WLTC Type I test;
- PEMS validation;
- RDE test.

### 5. Location of the testing campaign:

UTAC - AUTODROME LINAS-MONTLHERY, BP 20212 LINAS, 91311 MONTLHERY CEDEX - France (<a href="www.utac.com">www.utac.com</a>); The subcontracted laboratory is accredited by COFRAC according to ISO 17025/2017 standards related to the procedures mentioned above.

# 6. Results

The detailed results, provided by the subcontractor UTAC, are presented in annexes, report  $n^\circ$  22/02979 and  $n^\circ$  22/03323.

# Overview of the results

# - Family 6-JT1-38-0

# - WLTC Type 1

		LEXUS NX300H xxxxxxxxxxxx51881	LEXUS NX300H xxxxxxxxxxxx05420	LEXUS NX300H xxxxxxxxxxxx03636	Limit values
Pollutants	Units	Final values	Final values	Final values	
СО	(mg/km)	90.6	74.3	105.6	1000
THC	(mg/km)	8.8	7.3	9.4	100
NMHC	(mg/km)	7.2	5.9	7.8	68
NOx	(mg/km)	3.9	3.3	3.6	60
THC + NOx	(mg/km)	-	-	-	¥
Particulate Matter	(mg/km)			-	1
Particle Number	(#.10 <sup>11</sup> /km)		-	-	-

<sup>-:</sup> not applicable

### - RDE

		LEXUS NX300H		LEXUS NX300H		LEXUS NX300H		Limit
		XXXXXXXX	xxxx51881	XXXXXXXX	xxxx05420	xxxxxxxx	xxxx03636	values
Pollutants	Units	Final	values	Final	values	Final	values	
		Urban	Total trip	Urban	Total trip	Urban	Total trip	
		trip		trip		trip		
NOx	(mg/km)	9.4	6.7	9.7	7.1	1.8	3.2	85.8
CO	(mg/km)	188.3	254.6	58.0	752.0	86.3	322.3	-
Particle	(#.10 <sup>11</sup> /km)	-	-	-	1 -	-	-	-
Number								

<sup>-:</sup> not applicable

#### - Family 6-JT1-27-2

# - WLTC Type 1

		LEXUS UX250H	LEXUS UX250H	LEXUS UX250H	Limit
		xxxxxxxxxxx66533	xxxxxxxxxxx70606	xxxxxxxxxxx55045	values
Pollutants	Units	Final values	Final values	Final values	
CO	(mg/km)	127.2	128.2	113.4	1000
THC	(mg/km)	11.1	10.7	9.1	100
NMHC	(mg/km)	8.0	9.2	8.1	68
NOx	(mg/km)	1.8	1.6	1.9	60
THC + NOx	(mg/km)	-	-	-	-
Particulate	(mg/km)	0.13	0.08	0.12	4.5
Matter					
Particle	(#.10 <sup>11</sup> /km)	0.57	0.75	0.61	6.0
Number					

<sup>-:</sup> not applicable

#### - RDE

		LEXUS	LEXUS UX250H		LEXUS UX250H		LEXUS UX250H	
		xxxxxxx	xxxx66533	XXXXXXXX	xxxxx70606	xxxxxxxx	xxxx55045	values
Pollutants	Units	Final	Final values Final		al values Final values			
		Urban	Total trip	Urban	Total trip	Urban	Total trip	
		trip		trip		trip		
NOx	(mg/km)	2.8	5.3	2.8	3.5	2.8	3.1	85.8
CO	(mg/km)	45.4	319.6	94.0	535.5	104.9	2266.1	-
Particle	(#.10 <sup>11</sup> /km)	0.56	1.12	0.94	1.13	0.62	1.39	9.0
Number								

<sup>- :</sup> not applicable

### 7. Conclusion:

The ISC procedures are under the responsibility of the Granting Type Approval Authority. Two families of three vehicles have been submitted to Type 1 (WLTC) and Type 1a (RDE) tests. All of the vehicles comply with the regulatory requirements (regulation EU 2018/1832) in compliance with reports n° 22/02979 and n°22/03323.

# 8. Remarks:

In this report, tests results are only available for the equipments/vehicles submitted to tests or materiel identified in the present test report.

The Institute (ISSeP) is responsible for all information provided in this report excepted data/information provided by the Authority.

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#### 9. Annexes

Annex 1: Report n° 22/02979 (12 pages) and « Appendices 1 of the selected vehicles » (24 pages)

Annex 2: Report n° 22/03323 (12 pages) and « Appendices 1 of the selected vehicles » (24 pages)

Annex 1: Report n° 22/02979 (report + appendices)



**REPORT N°: 22/02979** 

APPLICANT : ISSeP

Zoning A.Schweitzer Rue de la Platinerie 12 7340 Colfontaine, Belgium

**SUBJECT** 

Check of in-service conformity carried out by the granting type approval authority following the

requirements of Article 9 and Annex II of Regulation EU 2017/1151\*2018/1832.

#### **VEHICLES SUBMITTED TO TESTS**

Manufacturer TOYOTA MOTOR EUROPE NV/SA

Make LEXUS (LEXUS NX300H)

Type approval number . e6\*2007/46\*0111

ISC family . 6-JT1-38-0

MONTLHÉRY, 20/04/2022



Grégory PICARD Conformity Team Manager

NB: UTAC shall not be liable for any industrial or commercial applications that occur as a result of these tests. This test report may only be reproduced in the form of a full photographic facsimile. Tests results are only available for the materiel submitted to tests or materiel identified in the present test report.





1. Quick overview and main conclusions

The ISC procedures are under the responsibility of the Flemish Type Approval Authority (Mobilitelt en Openbare Werken, Vlaams Huis voor de Verkeersveiligheid, Cel Homologatie). In accordance with the requirements of Annex II of Regulation EU 2018/1832, the vehicles of 1 ISC family of the manufacturer have been submitted to Type 1 (WLTC) and Type 1a (RDE) tests.

The results of the tests performed on the 3 vehicles comply with regulatory requirements.

2. Name and address of the manufacturer

Toyota Motor Europe NV/SA Avenue du Bourget 60 - Bourgetlaan 60, 1140 Brüssel, Belgien

3. Name, address, telephone and fax numbers and e-mail address of the responsible testing laboratory

UTAC
Autodrome de Linas-Montlhéry
BP 20212
91311 Montlhéry Cedex France
+33 (0)1 69 80 17 00
www.utac.com

4. Model name of the vehicles included in the test plan

#### LEXUS NX300H (AZ1)





**5.** List of vehicle types covered within the manufacturer's information, i.e. for tailpipe emissions, the in-service family group

6-JT1-38-0

**6.** Numbers of the type approvals applicable to these vehicle types within the family, including, where applicable, the numbers of all extensions and field fixes/recalls (re-works)

 $\label{eq:RCE/WVTA:e6*2007/46*0111*07, Emissions:e6*715/2007*2018/1832AM*0310*00 RCE/WVTA:e6*2007/46*0111*08, Emissions:e6*715/2007*2018/1832AP*0310*01}$ 



#### **REPORT Nº 22/02979**

**7.** Details of extensions, field fixes/recalls to those type approvals for the vehicles covered within the manufacturer's information (if requested by the approval authority)

1

8. Period of time over which the sales information was collected

01/01/2020 - 31/12/2020

9. Vehicle build period covered

xxxxxxxxxxxxx51881:08/09/2020 xxxxxxxxxxxxxx05420:24/09/2020 xxxxxxxxxxxxxx03636:30/03/2020

10. ISC checking procedure:

Vehicle sourcing method

Compliance with vehicle eligibility criteria (article 9 and Annex II of Regulation EU 2018/1832)

Vehicle selection and rejection criteria (including the answers to the table in Appendix 1, including photos)

See Annex 2 « Appendices 1 of selected vehicles »

Test types and procedures used for the campain

Type 1 (WLTC) / RDE performed under the conditions defined in Annex IIIa of Regulation EU 2018/1832

The acceptance/rejection criteria for the family group

Compliance with the statistical rule of Table B.2.a of §5.10 of Annex II of Regulation EU 2018/1832

Geographical area(s) within which the manufacturer has collected information

Belgium, Germany and France (information collected by the Flemish Type Appoval Authority (MOW) and ProRent) concerning the vehicles selection and by UTAC concerning the control of the vehicle conformity

Sample size and sampling plan used

3 vehicles selected per ISC family in accordance with Annex II of Regulation EU 2018/1832

11. Results of the ISC procedure:

 $\underline{\text{Identification of the vehicles included in the campain (whether tested or not). The identification shall include the Table in Appendix} \, \underline{1}$ 

See annex 2 "Appendices 1 of the selected vehicles"



## Test data for tailpipe emissions:

Test fuel specifications (e.g. test reference fuel or market fuel) :

# Reference fuel (see §3 of Annex 1 "Details of test results")

Test conditions (temperature, humidity, dynamometer inertia weight):

Vehicle identification number	xxxxxxxxxxxx51881	xxxxxxxxxxxx05420	xxxxxxxxxxxx03636
Test temperature (°C)	22,5	22,5	22,4
Relative humidity (%)	47,7	47,5	47,7
IWR : Inertial Work Rating (%)	1,7	0,0	-0,3

Dynamometer setting (e.g. road load, power setting):

Test mass (kg)	1909	1909	1885
Inertia mass (kg)	1936	1936	1912
f <sub>0</sub> (N)	171,4	171,4	140,5
f <sub>1</sub> (N/(km/h))	0,889	0,889	0,889
f <sub>2</sub> (N/(km/h)²)	0,04307	0,04307	0,04137

Test results and calculation of pass/fail:

Vehicle identification number	xxxxxxxxxxxx51881	xxxxxxxxxxxxx05420	xxxxxxxxxxxx03636
TYPE 1 (WLTC)	Pass	Pass	Pass
RDE	Pass	Pass	Pass

Details of test results: see annex 1 "Details of test results"

# Test data for evaporative emissions:

Tests not performed on the selected vehicles



# Annex 1 "Details of test results"

# 1. DESCRIPTION OF TESTED VEHICLE

Vehicle	N° 1	N° 2	N° 3
Make	LEXUS	LEXUS	LEXUS
Commercial designation	LEXUS NX300H	LEXUS NX300H	LEXUS NX300H
Interpolation family	IP-0075-JT1-1	IP-0075-JT1-1	IP-0075-JT1-1
Vehicle number	xxxxxxxxxxxx51881	xxxxxxxxxxxxx05420	xxxxxxxxxxxx03636
Category	M1	M1	M1

# 2. POWERTRAIN ARCHITECTURE

Vehicle	N° 1	N° 2	N° 3
Powertrain architecture	not off-vehicle charging hybrid	not off-vehicle charging hybrid	not off-vehicle charging hybrid
Working principle of internal combustion engine	positive ignition	positive ignition	positive ignition
Gearbox	continuous variable	continuous variable	continuous variable

### 3. TEST FUEL FOR TYPE 1 TEST

Make : TOTAL

Type : ULG E10 EURO6 CERT

Density at 15°C (kg/dm3) : **0,746** 

Sulphur content (mg/kg) : 4,4

Batch number : PCU050140G





# 4. TEST CONDITIONS FOR TYPE 1 TEST

Vehicle	N° 1	N° 2	N° 3
Date of tests	29/03/2022	01/04/2022	08/04/2022
Place of the test	Bench CE2, Montihéry, France	Bench CE2, Montlhéry, France	Bench CE2, Montlhéry, France
Odometer value at test start (km)	24546	22147	22732
Test mass (kg)	1909	1909	1885
Inertia mass (kg)	1936	1936	1912
fo (N)	171,4	171,4	140,5
f <sub>1</sub> (N/(km/h))	0,889	0,889	0,889
$f_2$ (N/(km/h) <sup>2</sup> )	0,04307	0,04307	0,04137
Test temperature (°C)	22,5	22,5	22,4
Relative humidity (%)	47,7	47,5	47,7
IWR : Inertial Work Rating (%)	1,7	0,0	-0,3
RMSSE: Root Mean Squared Speed Error (km/h)	0,48	0,52	0,52

# 5. EQUIPMENT USED FOR TYPE 1 TEST

Equipment	Brand	Reference	
Diluted gaz analysis bay	Horiba	BAI0039	
Particle counter	AVL	EMI0101	
Weather station	Vaisala	SME0005	
Ventilation	FEV	EMI0100	
CVS	Horiba	EMI0098	
Roller	Maha	BRX0019 & BRX0020	
Dynamometer	FEV	CPL0012 & CPL0013	





# 6. POLLUTANT EMISSIONS - TYPE 1

Vehicle	Pollutants	СО	THC	NMHC	NOx	THC+NOx	Particulate Matter	Particle Number
		(mg/km)	(mg/km)	(mg/km)	(mg/km)	(mg/km)	(mg/km)	(#.10 <sup>11</sup> /km)
	Measured values	90,58	8,81	7,18	3,89	-	-	-
	Regeneration factors (Ki)	-	-	-	-	-	-	-
N° 1	Final values	90,6	8,8	7,2	3,9	-	-	-
	Limit values	1000	100	68	60	-	-	-
	Final result				Compli	iant		
	Measured values	74,30	7,30	5,88	3,28	-	-	-
	Regeneration factors (Ki)	6	1	-	-	-	-	-
N°2	Final values	74,3	7,3	5,9	3,3	-	-	-
	Limit values	1000	100	68	60	-	-	
	Final result				Compli	iant		
	Measured values	105,63	9,44	7,75	3,56	-	-	н
	Regeneration factors (Ki)	\			-	-	-	-
N°3	Final values	105,6	9,4	7,8	3,6	-	-	-
	Limit values	1000	100	68	60	-	-	-
	Final result				Compli	iant		

n.a. : not applicable

# 7. MESURED CO2 EMISSION (STEP 1) - TYPE 1

II IIILOOITLD T	JOL LIMICOIOIT (OIL				
Vehicle	Phase 1 (Low) (g/km)	Phase 2 (Medium) (g/km)	Phase 3 (High) (g/km)	Phase 4 (Extra High) (g/km)	Global (g/km)
N°1	154,88	147,99	139,30	181,51	158,13
N°2	161,21	143,37	138,44	183,77	158,57
N°3	153,21	171,04	135,02	176,14	159,37



# 8. RDE FAMILY CRITERIA

Family reference : 6-JT1-38-0

# 9. DECLARED CO2 VALUES FROM COC

CO₂ Emission (g/km)	Vehicle N°1	Vehicle N°2	Vehicle N°3
Low	176	176	168
Mid	139	139	131
High	147	147	139
Extra-High	202	202	191
Combined	169	169	160

# 10. TEST CONDITIONS FOR RDE TEST

	Vehicle N°1	Vehicle N°2	Vehicle N°3
Date of tests	31/03/2022	29/03/2022	04/04/2022
Place of tests	Montlhéry, France	Montlhéry, France	Montlhéry, France
Hot start	no	no	no
Odometer value at test start (km)	24593	21994	22580
Odometer value at test end (km)	24695	22083	22668
Artificial payload (% deviation from the payload)	0	0	0
PEMS validation procedure (carried out on tested vehicles)	carried out	carried out	carried out





# 11. POLLUTANT EMISSIONS - RDE

	Vehicle		N° 1			N° 2			N° 3	
Pol	lutants emissions	NOx [mg/km]	CO [mg/km]	PN [#.10 <sup>11</sup> /km]	NOx [mg/km]	CO [mg/km]	PN [#.10 <sup>11</sup> /km]	NOx [mg/km]	CO [mg/km]	PN [#.10 <sup>11</sup> /km]
	Measured values m <sub>RDE,u</sub>	9,4	188,3	-	9,7	58,0	-	1,8	86,3	-
	Evaluation factor RFu		1,0000			1,0000			1,0000	
Urban trip	Calculated values MRDE,u	9,4	188,3	-	9,7	58,0	-	1,8	86,3	-
	Regeneration factors (Ki)	-	-	-	-	-	-	-	-	-
	Final values	9,4	188,3		9,7	58,0	-	1,8	86,3	-
	Conformity factors	0,16	s.o. / <i>n.a.</i>	2	0,16	s.o. / n.a.	-	0,03	s.o. / n.a.	-
	Measured values m <sub>RDE,u</sub>	6,7	254,6	-	7,1	752,0	-	3,2	322,3	í
	Evaluation factor RF <sub>u</sub>		1,0000			1,0000			1,0000	
Total trip	Calculated values MRDE,u	6,7	254,6	-	7,1	752,0	-	3,2	322,3	-
	Regeneration factors (Ki)			-		-	-	-	-	-
	Final values	6,7	254,6	-	7,1	752,0	-	3,2	322,3	-
	Conformity factors	0,11	s.o. / <i>n.a.</i>	-	0,12	s.o. / n.a.	-	0,05	s.o. / n.a.	-
	Applicable Euro 6 limits	60	1000	-	60	1000	-	60	1000	¥
Limit values	Conformity factors	1 + 0,43	s.o. / n.a.	-	1 + 0,43	s.o. / n.a.	-	1 + 0,43	s.o. / n.a.	-
	Not to exceed limits	85,8	s.o. / <i>n.a</i> .	-	85,8	s.o. / n.a.	-	85,8	s.o. / n.a.	-
	Final result		Compliant	t		Compliant	t		Compliant	t

n.a.: not applicable





# 12. MESURED CO2 EMISSION - RDE

Vehicle	Urban (g/km)	Rural (g/km)	Motorway (g/km)	Trip (g/km)
N°1	169,47	159,96	200,85	173,79
N°2	169,16	162,18	203,30	177,50
N°3	149,83	169,61	192,23	168,99

# 13. RDE TESTS CHARACTERISTICS

Parameter		N°1	N°2	N°3	Legislation bundaries
Trip Duration (min:s)		100:46	95:09	91:39	90-120min
Trip Distance (km)		82,97	89,18	82,55	> 46 km
Stop Duration (% of urbar	1)	10,2%	10,1%	12,9%	6-30%
	Urban	36,7% (30 km)	34,5% (31 km)	35,5% (29 km)	29-44% & > 16 km
Distance share (%) (and typical km- distance)	Rural	38,0% (32 km)	34,1% (30 km)	36,2% (30 km)	23-43% & > 16 km
distarrooy	Motorway	25,3% (21 km)	31,4% (28 km)	28,3% (23 km)	23-43% & > 16 km
	Urban	28,47	32,38	30,93	15-40 km/h
Average Speed (km/h)	Rural	75,28	78,46	79,39	60-90 km/h
	Motorway	109,88	113,24	114,44	100-145 km/h
Motorway (>100km/h) (min	Motorway (>100km/h) (min:s)		12:02	10:09	> 5 min
Max altitude (m)		167	168	173	< 700m
Altitude difference (end-start)	(m)	12	13	2	< 100 m
Minimum Temperature (°C	C)	4,5	12,2	7,3	3°C (-2°C ; 3°C)
Maximum Temperature (°C	C)	7,7	15,2	9,9	30°C (30°C; 35°C)
	Urban	11,296	12,485	12,495	<=18,622 (m <sup>2</sup> /s <sup>3</sup> )
V*Apos_95% (W/kg) (m²/s³)	Rural	18,317	18,862	16,671	<=24.7 (m <sup>2</sup> /s <sup>3</sup> )
	Motorway	20,014	22,316	22,506	<=28,016 (m <sup>2</sup> /s <sup>3</sup> )
	Urban	0,219	0,236	0,242	>= 0.126 (m/s²)
RPA (m/s²)	Rural	0,123	0,145	0,125	>= 0.052 (m/s²)
	Motorway	0,130	0,136	0,128	>= 0.025 (m/s²)

# 14. EQUIPMENT USED FOR RDE TEST

Vehicle	PN (AVL)	Exhaust flowmeter (AVL)	Gaz analyser (AVL)
N°1	EMI0125	DEG0073	ANA0144
N°2	EMI0125	DEG0073	ANA0144
N°3	EMI0125	DEG0073	ANA0144





# 15. CORRELATION BETWEEN PEMS AND CVS

	Vehicle 1							
	PEMS result	CVS result	Difference	Difference	Tolerance	Assessment		
CO2 (g/km)	162,1	153,9	8,2	5,3 %	+/- 10 g/km or 10 %	Passed		
CO (mg/km)	70,9	82,1	-11,2	-13,6 %	+/- 150 mg/km or 15 %	Passed		
NOx (mg/km)	5,4	3,8	1,6	42,1 %	+/- 15 mg/km or 15 %	Passed		
PN (#/km)	-			-	+/- 1,0E11#/km <i>or</i> 50%	Passed		
Distance (m)	22560	23246	-686		+/- 250m	Failed		

Y			Vehicle 2			
	PEMS result	CVS result	Difference	Difference	Tolerance	Assessment
CO2 (g/km)	186,1	174,0	12,1	6,9 %	+/- 10 g/km or 10 %	Passed
CO (mg/km)	55,1	78,9	-23,8	-30,2 %	+/- 150 mg/km or 15 %	Passed
NOx (mg/km)	4,1	2,5	1,6	64,2 %	+/= 15 mg/km or 15 %	Passed
PN (#/km)	- /	-	-	-	+/- 1,0E11#/km or 50%	Passed
Distance (m)	22576	23213	-637	-	+/- 250m	Failed

	/		Vehicle 3			
	PEMS result	CVS result	Difference	Difference	Tolerance	Assessment
CO2 (g/km)	181,5	172,9	8,6	5,0 %	+/- 10 g/km or 10 %	Passed
CO (mg/km)	87,1	101,7	-14,6	-14,3 %	+/- 150 mg/km or 15 %	Passed
NOx (mg/km)	3,9	2,7	1,2	42,1 %	+/- 15 mg/km or 15 %	Passed
PN (#/km)	-	-	-	-	+/- 1,0E11#/km or 50%	Passed
Distance (m)	22808	23202	-394	-	+/ <b>- 250m</b>	Failed



Annex 2 "Appendices 1 of the selected vehicles"

# Appendice 1 Criteria for vehicle selection and failed vehicles decision Selection of Vehicles for In Service Conformity Emissions Testing

	X = checked & reported	x x x	24/03/2022  UTAC  UTAC / Montlhéry
	X	х	UTAC
	X		
	X	х	UTAC / Montlhéry
	Х		
			GERMANY
		. '	
	Х	x	-
х			24 480 km
x			05/05/2021
	Х		xxxxxxxxxxx51881
	х		715/2007*2018/1832APEURO6
х	Х		GERMANY
	х		AZ1
	Х		2AR-FXE
	х		2.494
	х		114
	x		CVT
	х		FWD
	х		225/60 R18 100H
х	х		No
	x	x  x  x  x  x  x  x  x  x  x  x  x  x	x

	Vehicle Examination and Maintenance	X = exclusion criteria / F = faulty vehicle	X = checked and reported	
1	Fuel tank level (full / empty) Is the fuel reserve light ON? If yes, refuel before test		х	Level done with reference fuel after enptying procedure (Fuel form available in the folder)
2	Are there any warning lights on the instrument panel activated indicating a vehicle or exhaust after-treatment system malfunctioning that cannot be resolve by normal maintenance? (Malfunction Indication Light, Engine Service Light, etc?)  If yes, the vehicle cannot be selected	х	х	No
3	Is the SCR light on after engine-on? If yes, the AdBlue should be filled in, or the repair executed before the vehicle is used for testing	х		No
4	Visual inspection exhaust system Check leaks between exhaust manifold and end of tailpipe. Check and document (with photos) If there is damage of leaks, the vehicle is declared faulty	х		No leak detected
5	Exhaust gas relevant components Check and document (with photos) all emissions relevant components for damage If there is damage, the vehicle is declared faulty	х		Ok (see photos)
6	<b>Evap system:</b> Pressurize fuel-system (from canister side), testing for leaks in a constant ambient temperature environment, FID sniff test around and in the vehicle. If the FID sniff test is not passed, the vehicle is declared faulty	х		-
7	Fuel sample Collect fuel sample from the fuel tank		х	Fuel form in the folder
8	Air filter and oil filter Check for contamination and damage and change if damaged or heavily contaminated of less than 800 km before the next recommended change		x	Uk
9	Window washer fluid (only for evaporative testing) Remove window washer fluid and fill tank with hot water		Х	-
10	Wheels (front and rear) Check whether the wheels are freely moveable of blocked by the brake If not, the vehicle cannot be selected	х		No hard point

SIGNES

_				
11	Tyres (only for evaporative testing) Remove spare tyre, change to stabilised tyres if the tyres were changes less than 15 000 km ago Use summer and all season tyres only		х	-
12	Drive belts & cooler cover In case of damage, the vehicle is declared faulty Document with photos	х		Ok
13	Check fluid levels Check the max. and min. levels (engine oil, cooling liquid) / top up if below minimum		х	Levels OK
14	Filler flap (only for evaporative testing) Check overfill line within filler flap is completely free of residues or flush the hose with hot water.		х	-
15	Vacuum hoses and electrical wiring Check all for integrity. In case of damage, the vehicle is declared faulty. Document with photos	х		Ok
16	Injection valves / cabling Check all cables and fuel lines. In case of damage, the vehicle is declared faulty. Document with photos	Х		0k
17	<b>Ignition cable (gasoline)</b> Check spark plugs, cables, etc. <i>In case of samage, replace them</i>		х	0k
18	EGR & Catalyst, Particle Filter Check all cables, wires and sensors In case of tampering, the vehicle cannot be selected. In case of damage, the vehicle is declared faulty Document with photos	х		Ok
19	Safety condition Check tyres, vehicle's body, electrical and braking system status are in safe conditions for the test and respect road traffic rules If not, the vehicle cannot be selected	x		Ok
20	Semi-trailer Are there electric cables for semi-traile connection, where required ?		х	-
21	Aerodynamic modifications Verify no aftermarket aerodynamics modification that cannot be removed before testing was made (roof boxes, load racking, spoilers, etc.) and no standard aerodynamics components are missing (front deflectors, diffusers, splitters, etc.) If yes, the vehicle cannot be selected. Document with photos.	x		No modification

SIGNED

Check if less than 800 km away from next 22 scheduled service, if yes, then perform the service	x	Ok
All checks requiring OBD connections to be performed before and/or after the end of testing	x	Done
Powertrain Control Module calibration part number and checksum	x	Cal ID : 848701000998578 N° Cal : \$48 \$ed \$6f \$65
25 OBD diagnosis (before or after the emissions test)	x	No default
OBD Service Mode 09 Query (before or after the emissions test) Read Service Mode 09. Record the information	x	No default
OBD mode 7 (before or after the emissions test) Read Service Mode 07. Record the information	3	No default



Confidential

Appendix 1

#### Criteria for vehicle selection and failed vehicles decision

### Selection of Vehicles for In Service Conformity Emissions Testing

	,		
Date: 14.03.2022			x
Name of investigator:			х
Location of test: Linas			х
Country of registration (in EU only): Germany		x	
Vehicle Characteristics	x = Exclusion Criteria	X = Checked and reported	
Registration plate number:		x	x
Mileage: 24.500 km  The vehicle must have between 15 000 km (or 30 000 km for testing evaporative emissions) and 100 000 km	х		
Date of first registration: 05.05.2021  The vehicle must be between 6 months (or 12 months for testing evaporative emissions) and 5 years old	x		
VIN: XXXXXXXXXXXXX51881		x	
Emission class and character: Euro 6 / 36AP		x	
Country of registration: Germany The vehicle must be registered in the EU	x	x	
Model: Lexus NX 3		x	
Engine code: 2AR		x	
Engine volume (I): 2.494		x	
Engine power (kW): 114		x	
Gearbox type (auto/manual): A/T		x	
Drive axle (FWD/AWD/RWD): FWD		x	
Tyre size (front and rear if different): 225/60 R1	8	x	
Is the vehicle involved in a recall or service campaign? If yes: Which one? Has the campaign repairs already been done? The repairs must have been done	x	x	



# **▼**<u>M3</u>

#### Vehicle Owner Interview

(the owner will only be asked the main questions and shall have no knowledge of the implications of the replies)

Name of the owner (only available to the accredited inspection body or laboratory/technical service)			х
Contact (address / telephone) (only available to the accredited inspection body or laboratory/technical service) xxxxxx			x
	,		
How many owners did the vehicle have? 1		x	
Did the odometer not work?  If yes, the vehicle cannot be selected.	х		
Was the vehicle used for one of the following?			
As car used in show-rooms?		x	
As a taxi?		x	
As delivery vehicle?		x	
For racing / motor sports?	x		
As a rental car?		x	
Has the vehicle carried heavy loads over the specifications of the manufacturer?  If yes, the vehicle cannot be selected.	x		
Have there been major engine or vehicle repairs? No		x	
Have there been unauthorised major engine or vehicle repairs?  If yes, the vehicle cannot be selected.	x		
Has there been a power increase/tuning?  If yes, the vehicle cannot be selected.	х		
Was any part of the emissions after-treatment and/or the fuel system replaced? Were original parts used? If original parts were not used, the vehicle cannot be selected.	х	x	
Was any part of the emissions after-treatment system permanently removed?  If yes, the vehicle cannot be selected No	x		
Were there any unauthorised devices installed (Urea killer, emulator, etc)?  If yes, the vehicle cannot be selected No	x		



# **▼**<u>M3</u>

Was the vehicle involved in a serious accident? Provide a list of damage and repairs done afterwards No		x	
Has the car been used with a wrong fuel type (i.e. gasoline instead of diesel) in the past? Has the car been used with non-commercially available EU-quality fuel (black market, or blended fuel?)  If yes, the vehicle cannot be selected.	x		
Did you use air-fresher, cockpit-spray, brake cleaner or other high hydrocarbon emission source around the vehicle during the last month? If yes, the vehicle cannot be selected for evaporative testing.	х		
Was there a gasoline spill in the inside or outside of the vehicle during the last 3 months?  If yes, the vehicle cannot be selected for evaporative testing.	x		
Did anyone smoke in the car during the last 12 months?  If yes, the vehicle cannot be selected for evaporative testing No	x		
Did you apply corrosion protection, stickers, under seal protection, on any other potential sources of volatile compounds to the car?  If yes, the vehicle cannot be selected for evaporative testing No	x		
Was the car repainted?  If yes, the vehicle cannot be selected for evaporative testing No	x		
Where do you use your vehicle more often?  40 % motorway  30 % rural		x x	
30 % urban		х	
Did you drive the vehicle in a non EU Member State for more than 10 % of driving time?  If yes, the vehicle cannot be selected No	*	_	
In which country was the vehicle refuelled during the last two times?  If the vehicle was refuelled the last two times outside a state applying the EU Fuel Standards, the vehicle cannot be selected.  Germany	х		
Has a fuel additive, not approved by the manufacturer been used?  If yes then the vehicle cannot be selected.	х		
Has the vehicle been maintained and used in accordance with the manufacturer's instructions?  If not, the vehicle cannot be selected.	X		



# **▼** M3

Full service and repair history including any re-works  If the full documentation cannot be provided, the vehicle cannot be selected.  Dokument attached
--

Vehicle Examination and Maintenance

X = Exclusion Criteria/ F = Faulty Vehicle

X = checked and reported



# Appendice 1 Criteria for vehicle selection and failed vehicles decision Selection of Vehicles for In Service Conformity Emissions Testing

	x=exclusion criteria	X = checked & reported	Confidential	
Date :			х	25/03/2022
Name of investigator :			х	UTAC
Location of test :			х	UTAC / Montlhéry
Country of registration (in EU only):		Х		GERMANY
4	1		1	
Registration plate number :		х	х	-
Mileage : The vehicle must have between 15 000 km (or 30 000 km for testing evaporative emissions) and 100 000 km	х			21 971 km
Date of first registration : The vehicle must be between 6 months (or 12 months for testing evaporative emissions) and 5 years old	х	4		05/05/2021
VIN:		х		xxxxxxxxxxx05420
Emission class and character :		х		715/2007*2018/1832APEURO6
Country of registration : The vehicle must be registered in the EU	X	x		GERMANY
Model :		х		AZ1
Engine code :		х		2AR-FXE
Engine volume [l] :		х		2.494
Engine power (kW) :		х		114
Gearhox type (auto/manual) :		x		CVT
Drive axle (FWD/AWD/RWD) :		х		FWD
Tire size (front and rear if different) :		х		225/60 R18 104H
Is the vehicle involved in a recall or service campain ? If yes : Which one ? Has the campain repairs already been done ? The repairs must have been done	x	х		No

	Vehicle Examination and Maintenance	X = exclusion criteria / F = faulty vehicle	X = checked and reported	
1	Fuel tank level (full / empty) Is the fuel reserve light ON? If yes, refuel before test		х	Level done with reference fuel after enptying procedure (Fuel form available in the folder)
2	Are there any warning lights on the instrument panel activated indicating a vehicle or exhaust after-treatment system malfunctioning that cannot be resolve by normal maintenance? (Malfunction Indication Light, Engine Service Light, etc?)  If yes, the vehicle cannot be selected	х	х	No
3	Is the SCR light on after engine-on? If yes, the AdBlue should be filled in, or the repair executed before the vehicle is used for testing	х		No
4	Visual inspection exhaust system Check leaks between exhaust manifold and end of tailpipe. Check and document (with photos) If there is damage of leaks, the vehicle is declared faulty	х		No leak detected
5	Exhaust gas relevant components Check and document (with photos) all emissions relevant components for damage If there is damage, the vehicle is declared faulty	х		Ok (see photos)
6	<b>Evap system:</b> Pressurize fuel-system (from canister side), testing for leaks in a constant ambient temperature environment, FID sniff test around and in the vehicle. If the FID sniff test is not passed, the vehicle is declared faulty	х		-
7	Fuel sample Collect fuel sample from the fuel tank		х	Fuel form in the folder
8	Air filter and oil filter Check for contamination and damage and change if damaged or heavily contaminated of less than 800 km before the next recommended change		x	Uk
9	Window washer fluid (only for evaporative testing) Remove window washer fluid and fill tank with hot water		х	-
10	Wheels (front and rear) Check whether the wheels are freely moveable of blocked by the brake If not, the vehicle cannot be selected	х		No hard point

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11	Tyres (only for evaporative testing) Remove spare tyre, change to stabilised tyres if the tyres were changes less than 15 000 km ago Use summer and all season tyres only		x	-
12	Drive belts & cooler cover In case of damage, the vehicle is declared faulty Document with photos	X		Ok
13	Check fluid levels Check the max. and min. levels (engine oil, cooling liquid) / top up if below minimum		х	Levels OK
14	Filler flap (only for evaporative testing) Check overfill line within filler flap is completely free of residues or flush the hose with hot water.		х	-
15	Vacuum hoses and electrical wiring Check all for integrity. In case of damage, the vehicle is declared faulty. Document with photos	х		0k
16	Injection valves / cabling Check all cables and fuel lines. In case of damage, the vehicle is declared faulty. Document with photos	х		0k
17	<b>Ignition cable (gasoline)</b> Check spark plugs, cables, etc. In case of samage, replace them		х	0k
18	EGR & Catalyst, Particle Filter Check all cables, wires and sensors In case of tampering, the vehicle cannot be selected. In case of damage, the vehicle is declared faulty Document with photos	х		Ok
19	Safety condition Check tyres, vehicle's body, electrical and braking system status are in safe conditions for the test and respect road traffic rules If not, the vehicle cannot be selected	х		Ok
20	Semi-trailer Are there electric cables for semi-traile connection, where required ?		х	-
21	Aerodynamic modifications Verify no aftermarket aerodynamics modification that cannot be removed before testing was made (roof boxes, load racking, spoilers, etc.) and no standard aerodynamics components are missing (front deflectors, diffusers, splitters, etc.) If yes, the vehicle cannot be selected. Document with photos.	x		No modification

SIGNED

Check if less than 800 km away from next scheduled service, if yes, then perform the service		x	Ok
All checks requiring OBD connections to be performed before and/or after the end of testing		х	Done
Powertrain Control Module calibration part number and checksum		х	Cal ID : 3788378520F9000 N° Cal : \$1e \$e2 \$10 \$9d
25 OBD diagnosis (before or after the emissions test)		х	No default
OBD Service Mode 09 Query (before or after the emissions test) Read Service Mode 09. Record the information		х	No default
OBD mode 7 (before or after the emissions test) Read Service Mode 07. Record the information	9		No default



Confidential

Appendix 1

#### Criteria for vehicle selection and failed vehicles decision

### Selection of Vehicles for In Service Conformity Emissions Testing

Date: 14.03.2022			x
Name of investigator:			Х
Location of test: Linas			х
Country of registration (in EU only): Germany		x	
Vehicle Characteristics	x = Exclusion Criteria	X = Checked and reported	
Registration plate number:		x	х
Mileage: 22.000 km  The vehicle must have between 15 000 km (or 30 000 km for testing evaporative emissions) and 100 000 km	x		
Date of first registration: 05.05.2021  The vehicle must be between 6 months (or 12 months for testing evaporative emissions) and 5 years old	x		
VIN: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		x	
Emission class and character: Euro 6 / 36AP		x	
Country of registration: Germany The vehicle must be registered in the EU	x	x	
Model: Lexus NX 3		x	
Engine code: 2AR		x	
Engine volume (I): 2.494		x	
Engine power (kW): 114		x	
Gearbox type (auto/manual): A/T		x	
Drive axle (FWD/AWD/RWD): FWD		x	
Tyre size (front and rear if different): 225/60 R1	8	x	
Is the vehicle involved in a recall or service campaign? If yes: Which one? Has the campaign repairs already been done?  The repairs must have been done  No	х	x	



# **▼**<u>M3</u>

#### Vehicle Owner Interview

(the owner will only be asked the main questions and shall have no knowledge of the implications of the replies)

Name of the owner (only available to the accredited inspection body or laboratory/technical service)			x
Contact (address / telephone) (only available to the accredited inspection body or laboratory/technical service) xxxxxx			x
	,		,
How many owners did the vehicle have? 1		x	
Did the odometer not work?  If yes, the vehicle cannot be selected.	x		
Was the vehicle used for one of the following?			
As car used in show-rooms?		x	
As a taxi?		x	
As delivery vehicle?		x	
For racing / motor sports?	x		
As a rental car?		x	
Has the vehicle carried heavy loads over the specifications of the manufacturer?  If yes, the vehicle cannot be selected.	x		
Have there been major engine or vehicle repairs? No		x	
Have there been unauthorised major engine or vehicle repairs?  If yes, the vehicle cannot be selected.	x		
Has there been a power increase/tuning?  If yes, the vehicle cannot be selected.	x		
Was any part of the emissions after-treatment and/or the fuel system replaced? Were original parts used? If original parts were not used, the vehicle cannot be selected.	х	х	
Was any part of the emissions after-treatment system permanently removed?  If yes, the vehicle cannot be selected No	x		
Were there any unauthorised devices installed (Urea killer, emulator, etc)?  If yes, the vehicle cannot be selected No	x		



# **▼**<u>M3</u>

Was the vehicle involved in a serious accident? Provide a list of damage and repairs done afterwards No		x	
Has the car been used with a wrong fuel type (i.e. gasoline instead of diesel) in the past? Has the car been used with non-commercially available EU-quality fuel (black market, or blended fuel?)  If yes, the vehicle cannot be selected.	x		
Did you use air-fresher, cockpit-spray, brake cleaner or other high hydrocarbon emission source around the vehicle during the last month? If yes, the vehicle cannot be selected for evaporative testing.	х		
Was there a gasoline spill in the inside or outside of the vehicle during the last 3 months?  If yes, the vehicle cannot be selected for evaporative testing.	x		
Did anyone smoke in the car during the last 12 months?  If yes, the vehicle cannot be selected for evaporative testing No	x		
Did you apply corrosion protection, stickers, under seal protection, on any other potential sources of volatile compounds to the car?  If yes, the vehicle cannot be selected for evaporative testing No	x		
Was the car repainted?  If yes, the vehicle cannot be selected for evaporative testing No	x		
Where do you use your vehicle more often?  40 % motorway  30 % rural		x x	
30 % urban		х	
Did you drive the vehicle in a non EU Member State for more than 10 % of driving time?  If yes, the vehicle cannot be selected No	*	_	
In which country was the vehicle refuelled during the last two times?  If the vehicle was refuelled the last two times outside a state applying the EU Fuel Standards, the vehicle cannot be selected.  Germany	x		
Has a fuel additive, not approved by the manufacturer been used?  If yes then the vehicle cannot be selected.	х		
Has the vehicle been maintained and used in accordance with the manufacturer's instructions?  If not, the vehicle cannot be selected.	X		



# **▼** M3

Full service and repair history including any re-works  If the full documentation cannot be provided, the vehicle cannot be selected.  Dokument attached
--

Vehicle Examination and Maintenance

X = Exclusion Criteria/ F = Faulty Vehicle

X = checked and reported



# Appendice 1 Criteria for vehicle selection and failed vehicles decision Selection of Vehicles for In Service Conformity Emissions Testing

	x=exclusion criteria	X = checked & reported	Confidential	
Date :			x	31/03/2022
Name of investigator :			х	UTAC
Location of test :			х	UTAC / Montlhéry
Country of registration (in EU only):		Х		GERMANY
4		'	'	
Registration plate number :		х	х	-
Mileage : The vehicle must have between 15 000 km (or 30 000 km for testing evaporative emissions) and 100 000 km	x			22 469 km
Date of first registration : The vehicle must be between 6 months (or 12 months for testing evaporative emissions) and 5 years old	х			11/08/2020
VIN:		х		xxxxxxxxxxx03636
Emission class and character :		х		715/2007*2018/1832AMEURO6
Country of registration : The vehicle must be registered in the EU	x	х		GERMANY
Model :		х		AZ1
Engine code :		х		2AR-FXE
Engine volume [l] :		х		2.494
Engine power (kW) :		х		114
Gearhox type (auto/manual) :		x		CVT
Drive axle (FWD/AWD/RWD) :		х		FWD
Tire size (front and rear if different) :		х		225/60 R18 104H
Is the vehicle involved in a recall or service campain? If yes: Which one? Has the campain repairs already been done? The repairs must have been done	x	х		No

	Vehicle Examination and Maintenance	X = exclusion criteria / F = faulty vehicle	X = checked and reported	
1	Fuel tank level (full / empty) Is the fuel reserve light ON? If yes, refuel before test		х	Level done with reference fuel after enptying procedure (Fuel form available in the folder)
2	Are there any warning lights on the instrument panel activated indicating a vehicle or exhaust after-treatment system malfunctioning that cannot be resolve by normal maintenance? (Malfunction Indication Light, Engine Service Light, etc?)  If yes, the vehicle cannot be selected	х	х	No
3	Is the SCR light on after engine-on? If yes, the AdBlue should be filled in, or the repair executed before the vehicle is used for testing	х		No
4	Visual inspection exhaust system Check leaks between exhaust manifold and end of tailpipe. Check and document (with photos) If there is damage of leaks, the vehicle is declared faulty	х		No leak detected
5	Exhaust gas relevant components Check and document (with photos) all emissions relevant components for damage If there is damage, the vehicle is declared faulty	х		Ok (see photos)
6	<b>Evap system:</b> Pressurize fuel-system (from canister side), testing for leaks in a constant ambient temperature environment, FID sniff test around and in the vehicle. If the FID sniff test is not passed, the vehicle is declared faulty	х		-
7	Fuel sample Collect fuel sample from the fuel tank		х	Fuel form in the folder
8	Air filter and oil filter Check for contamination and damage and change if damaged or heavily contaminated of less than 800 km before the next recommended change		x	Uk
9	Window washer fluid (only for evaporative testing) Remove window washer fluid and fill tank with hot water		х	-
10	Wheels (front and rear) Check whether the wheels are freely moveable of blocked by the brake If not, the vehicle cannot be selected	х		No hard point

SIGNES

_				
11	Tyres (only for evaporative testing) Remove spare tyre, change to stabilised tyres if the tyres were changes less than 15 000 km ago Use summer and all season tyres only		х	-
12	Drive belts & cooler cover In case of damage, the vehicle is declared faulty Document with photos	х		Ok
13	Check fluid levels Check the max. and min. levels (engine oil, cooling liquid) / top up if below minimum		х	Levels OK
14	Filler flap (only for evaporative testing) Check overfill line within filler flap is completely free of residues or flush the hose with hot water.		х	-
15	Vacuum hoses and electrical wiring Check all for integrity. In case of damage, the vehicle is declared faulty. Document with photos	х		Ok
16	Injection valves / cabling Check all cables and fuel lines. In case of damage, the vehicle is declared faulty. Document with photos	Х		Ok
17	<b>Ignition cable (gasoline)</b> Check spark plugs, cables, etc. <i>In case of samage, replace them</i>		х	0k
18	EGR & Catalyst, Particle Filter Check all cables, wires and sensors In case of tampering, the vehicle cannot be selected. In case of damage, the vehicle is declared faulty Document with photos	x		Ok
19	Safety condition Check tyres, vehicle's body, electrical and braking system status are in safe conditions for the test and respect road traffic rules If not, the vehicle cannot be selected	x		Ok
20	Semi-trailer Are there electric cables for semi-traile connection, where required ?		х	-
21	Aerodynamic modifications Verify no aftermarket aerodynamics modification that cannot be removed before testing was made (roof boxes, load racking, spoilers, etc.) and no standard aerodynamics components are missing (front deflectors, diffusers, splitters, etc.) If yes, the vehicle cannot be selected. Document with photos.	x		No modification

SIGNED

Check if less than 800 km away from next 22 scheduled service, if yes, then perform the service		x	Ok
All checks requiring OBD connections to be performed before and/or after the end of testing		х	Done
Powertrain Control Module calibration part number and checksum		х	Cal ID : 378837836000 N° Cal : \$e5 \$82 \$56 \$be
25 OBD diagnosis (before or after the emissions test)		х	No default
OBD Service Mode 09 Query (before or after the emissions test) Read Service Mode 09. Record the information		х	No default
OBD mode 7 (before or after the emissions test) Read Service Mode 07. Record the information	9		No default



Confidential

Appendix 1

### Criteria for vehicle selection and failed vehicles decision

### Selection of Vehicles for In Service Conformity Emissions Testing

Date: 14.03.2022			X
Name of investigator:			X
Location of test: Linas			x
Country of registration (in EU only): Germany		х	
Vehicle Characteristics	x = Exclusion Criteria	X = Checked and reported	
Registration plate number:		x	x
Mileage: 22.500 km  The vehicle must have between 15 000 km (or 30 000 km for testing evaporative emissions) and 100 000 km	x		
Date of first registration: 11.08.2020  The vehicle must be between 6 months (or 12 months for testing evaporative emissions) and 5 years old	x		
VIN: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		x	
Emission class and character: Euro 6 / 36AM		x	
Country of registration: Germany The vehicle must be registered in the EU	x	x	
Model: Lexus NX 3		x	
Engine code: 2AR		x	
Engine volume (1): 2.494		x	
Engine power (kW): 114		X	
Gearbox type (auto/manual): A/T		x	
Drive axle (FWD/AWD/RWD): FWD		x	
Tyre size (front and rear if different): 225/65 R1	7	x	
Is the vehicle involved in a recall or service campaign? If yes: Which one? Has the campaign repairs already been done? The repairs must have been done  No	х	x	



### Vehicle Owner Interview

(the owner will only be asked the main questions and shall have no knowledge of the implications of the replies)

Name of the owner (only available to the accredited inspection body or laboratory/technical service)			x
Contact (address / telephone) (only available to the accredited inspection body or laboratory/technical service) XXXXXX			х
How many owners did the vehicle have? 1		x	
Did the odometer not work?  If yes, the vehicle cannot be selected.	х		
Was the vehicle used for one of the following?			
As car used in show-rooms?		x	
As a taxi?		x	
As delivery vehicle?		x	
For racing / motor sports?	x		
As a rental car?		x	
Has the vehicle carried heavy loads over the specifications of the manufacturer?  If yes, the vehicle cannot be selected.	x		
Have there been major engine or vehicle repairs? No		x	
Have there been unauthorised major engine or vehicle repairs?  If yes, the vehicle cannot be selected.	x		
Has there been a power increase/tuning?  If yes, the vehicle cannot be selected. No	x		
Was any part of the emissions after-treatment and/or the fuel system replaced? Were original parts used? If original parts were not used, the vehicle cannot be selected.	x	x	
Was any part of the emissions after-treatment system permanently removed?  If yes, the vehicle cannot be selected No	x		
Were there any unauthorised devices installed (Urea killer, emulator, etc)?  If yes, the vehicle cannot be selected No	x		



Was the vehicle involved in a serious accident? Provide a list of damage and repairs done afterwards No		x	
Has the car been used with a wrong fuel type (i.e. gasoline instead of diesel) in the past? Has the car been used with non-commercially available EU-quality fuel (black market, or blended fuel?)  If yes, the vehicle cannot be selected.	x		
Did you use air-fresher, cockpit-spray, brake cleaner or other high hydrocarbon emission source around the vehicle during the last month? If yes, the vehicle cannot be selected for evaporative testing.	х		
Was there a gasoline spill in the inside or outside of the vehicle during the last 3 months?  If yes, the vehicle cannot be selected for evaporative testing.	x		
Did anyone smoke in the car during the last 12 months?  If yes, the vehicle cannot be selected for evaporative testing No	x		
Did you apply corrosion protection, stickers, under seal protection, on any other potential sources of volatile compounds to the car?  If yes, the vehicle cannot be selected for evaporative testing No	x		
Was the car repainted?  If yes, the vehicle cannot be selected for evaporative testing No	x		
Where do you use your vehicle more often?  40 % motorway  30 % rural		x x	
30 % urban		х	
Did you drive the vehicle in a non EU Member State for more than 10 % of driving time?  If yes, the vehicle cannot be selected No	*	_	
In which country was the vehicle refuelled during the last two times?  If the vehicle was refuelled the last two times outside a state applying the EU Fuel Standards, the vehicle cannot be selected.  Germany	х		
Has a fuel additive, not approved by the manufacturer been used?  If yes then the vehicle cannot be selected.	х		
Has the vehicle been maintained and used in accordance with the manufacturer's instructions?  If not, the vehicle cannot be selected.	X		



# **▼** M3

Full service and repair history including any re-works  If the full documentation cannot be provided, the vehicle cannot be selected.  Dokument attached	х	
--	---	--

Vehicle Examination and Maintenance

X = Exclusion Criteria/ F = Faulty Vehicle

X = checked and reported



Annex 2: Report n° 22/03323 (report + appendices)



**REPORT N°: 22/03323** 

APPLICANT : ISSeP

Zoning A.Schweitzer Rue de la Platinerie 12 7340 Colfontaine, Belgium

**SUBJECT** 

Check of in-service conformity carried out by the granting type approval authority following the

requirements of Article 9 and Annex II of Regulation EU 2017/1151\*2018/1832.

### **VEHICLES SUBMITTED TO TESTS**

Manufacturer TOYOTA MOTOR EUROPE NV/SA

Make LEXUS (LEXUS UX250H)

Type approval number . e6\*2007/46\*0263

ISC family . 6-JT1-27-2

MONTLHÉRY, 25/04/2022



**Grégory PICARD**Conformity Team Manager

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### **REPORT Nº 22/03323**



1. Quick overview and main conclusions

The ISC procedures are under the responsibility of the Flemish Type Approval Authority (Mobilitelt en Openbare Werken, Vlaams Huis voor de Verkeersveiligheid, Cel Homologatie). In accordance with the requirements of Annex II of Regulation EU 2018/1832, the vehicles of 1 ISC family of the manufacturer have been submitted to Type 1 (WLTC) and Type 1a (RDE) tests.

The results of the tests performed on the 3 vehicles comply with regulatory requirements.

2. Name and address of the manufacturer

Toyota Motor Europe NV/SA Avenue du Bourget 60 - Bourgetlaan 60, 1140 Brüssel, Belgien

3. Name, address, telephone and fax numbers and e-mail address of the responsible testing laboratory

UTAC
Autodrome de Linas-Montlhéry
BP 20212
91311 Montlhéry Cedex France
+33 (0)1 69 80 17 00
www.utac.com

4. Model name of the vehicles included in the test plan

### LEXUS UX250H (ZA1)





**5.** List of vehicle types covered within the manufacturer's information, i.e. for tailpipe emissions, the in-service family group

6-JT1-27-2

**6.** Numbers of the type approvals applicable to these vehicle types within the family, including, where applicable, the numbers of all extensions and field fixes/recalls (re-works)

RCE/WVTA: e6\*2007/46\*0263\*02, Emissions: e6\*715/2007\*2018/1832AM\*0231\*02





7. Details of extensions, field fixes/recalls to those type approvals for the vehicles covered within the manufacturer's information (if requested by the approval authority)

8. Period of time over which the sales information was collected

01/01/2020 - 31/12/2020

9. Vehicle build period covered

xxxxxxxxxxx66533:06/07/2020 xxxxxxxxxxx70606:31/08/2020 xxxxxxxxxxxx55045:01/01/2020

10. ISC checking procedure:

Vehicle sourcing method

Compliance with vehicle eligibility criteria (article 9 and Annex II of Regulation EU 2018/1832)

Vehicle selection and rejection criteria (including the answers to the table in Appendix 1, including photos)

See Annex 2 « Appendices 1 of selected vehicles »

Test types and procedures used for the campain

Type 1 (WLTC) / RDE performed under the conditions defined in Annex IIIa of Regulation EU 2018/1832

The acceptance/rejection criteria for the family group

Compliance with the statistical rule of Table B.2.a of §5.10 of Annex II of Regulation EU 2018/1832

Geographical area(s) within which the manufacturer has collected information

Belgium, Germany and France (information collected by the Flemish Type Appoval Authority (MOW) and ProRent) concerning the vehicles selection and by UTAC concerning the control of the vehicle conformity

Sample size and sampling plan used

3 vehicles selected per ISC family in accordance with Annex II of Regulation EU 2018/1832

11. Results of the ISC procedure:

Identification of the vehicles included in the campain (whether tested or not). The identification shall include the Table in Appendix 1

See annex 2 "Appendices 1 of the selected vehicles"



### Test data for tailpipe emissions:

Test fuel specifications (e.g. test reference fuel or market fuel) :

# Reference fuel (see §3 of Annex 1 "Details of test results")

Test conditions (temperature, humidity, dynamometer inertia weight):

Vehicle identification number	xxxxxxxxxxx66533	xxxxxxxxxxx70606	xxxxxxxxxxxx55045
Test temperature (°C)	24,4	22,0	22,3
Relative humidity (%)	43,3	47,6	47,5
IWR : Inertial Work Rating (%)	1,6	2,5	0,5

Dynamometer setting (e.g. road load, power setting):

Test mass (kg)	1718	1718	1718
Inertia mass (kg)	1743	1743	1743
fo (N)	137,7	137,7	137,7
f <sub>1</sub> (N/(km/h))	0,622	0,622	0,622
f <sub>2</sub> (N/(km/h) <sup>2</sup> )	0,03542	0,03542	0,03542

Test results and calculation of pass/fail:

Vehicle identification number	xxxxxxxxxxxx66533	xxxxxxxxxxx70606	xxxxxxxxxxxx55045
TYPE 1 (WLTC)	Pass	Pass	Pass
RDE	Pass	Pass	Pass

Details of test results: see annex 1 "Details of test results"

# Test data for evaporative emissions:

Tests not performed on the selected vehicles



# Annex 1 "Details of test results"

# 1. DESCRIPTION OF TESTED VEHICLE

Vehicle	N° 1	N° 2	N° 3
Make	LEXUS	LEXUS	LEXUS
Commercial designation	LEXUS UX250H	LEXUS UX250H	LEXUS UX250H
Interpolation family	IP-0063-JT1-1	IP-0063-JT1-1	IP-0063-JT1-1
Vehicle number	xxxxxxxxxxxx66533	xxxxxxxxxxxx70606	xxxxxxxxxxxx55045
Category	M1	M1	M1

# 2. POWERTRAIN ARCHITECTURE

Vehicle	N° 1	N° 2	N° 3
Powertrain architecture	not off-vehicle charging hybrid	not off-vehicle charging hybrid	not off-vehicle charging hybrid
Working principle of internal combustion engine	positive ignition	positive ignition	positive ignition
Gearbox	continuous variable	continuous variable	continuous variable

### 3. TEST FUEL FOR TYPE 1 TEST

Make : TOTAL

Type : ULG E10 EURO6 CERT

Density at 15°C (kg/dm3) : **0,746** 

Sulphur content (mg/kg) : 4,4

Batch number : PCU050140G





# 4. TEST CONDITIONS FOR TYPE 1 TEST

Vehicle	N° 1	N° 2	N° 3
Date of tests	12/04/2022	14/04/2022	20/04/2022
Place of the test	Bench CE3, Montihéry, France	Bench CE2, Montlhéry, France	Bench CE2, Montihéry, France
Odometer value at test start (km)	18356	22327	19267
Test mass (kg)	1718	1718	1718
Inertia mass (kg)	1743	1743	1743
fo (N)	137,7	137,7	137,7
f <sub>1</sub> (N/(km/h))	0,622	0,622	0,622
f <sub>2</sub> (N/(km/h) <sup>2</sup> )	0,03542	0,03542	0,03542
Test temperature (°C)	24,4	22,0	22,3
Relative humidity (%)	43,3	47,6	47,5
IWR : Inertial Work Rating (%)	1,6	2,5	0,5
RMSSE: Root Mean Squared Speed Error (km/h)	0,43	0,50	0,48

# 5. EQUIPMENT USED FOR TYPE 1 TEST

Equipment (CE2 / CE3)	Brand (CE2 / CE3)	Reference (CE2 / CE3)
Diluted gaz analysis bay	Horiba / Horiba	BAI0039 / BAI0046
Particle counter	AVL / Horiba	EMI0101 / EMI0094
Weather station	Vaisala / Kimo	SME0005 / SME0006
Ventilation	FEV / FEV	EMI0100 / EMI0097
CVS	Horiba / Horiba	EMI0098 / EMI0097
Roller	Maha / FEV	BRX0019 & BRX0020 / BRX0012
Dynamometer	FEV / FEV	CPL0012 & CPL0013 / CPL0005
HFID CE3	Horiba	BAI0047





# 6. POLLUTANT EMISSIONS - TYPE 1

Vehicle	Pollutants	СО	THC	NMHC	NOx	THC+NOx	Particulate Matter	Particle Number
		(mg/km)	(mg/km)	(mg/km)	(mg/km)	(mg/km)	(mg/km)	(#.10 <sup>11</sup> /km)
	Measured values	127,19	11,09	7,98	1,82	-	0,13	0,57
	Regeneration factors (Ki)	-	-	-	-	-	-	-
N° 1	Final values	127,2	11,1	8,0	1,8	-	0,13	0,57
	Limit values	1000	100	68	60	-,	4,5	6,0
	Final result				Compli	ant		
	Measured values	128,19	10,74	9,20	1,60	-	0,08	0,75
	Regeneration factors (Ki)	C	1	-	-	-	-	-
N°2	Final values	128,2	10,7	9,2	1,6	-	0,08	0,75
	Limit values	1000	100	68	60	-	4,5	6,0
	Final result				Compli	iant		
	Measured values	113,39	9,09	8,05	1,86	Ŧ	0,12	0,61
	Regeneration factors (Ki)			\	-	-	-	-
N°3	Final values	113,4	9,1	8,1	1,9	-	0,12	0,61
	Limit values	1000	100	68	60	-	4,5	6,0
	Final result			•	Compli	iant		

n.a. : not applicable

# 7. MESURED CO2 EMISSION (STEP 1) - TYPE 1

II IIILOOITED T	301 Emilooioit (011				
Vehicle	Phase 1 (Low) (g/km)	Phase 2 (Medium) (g/km)	Phase 3 (High) (g/km)	Phase 4 (Extra High) (g/km)	Global (g/km)
N°1	93,65	112,14	97,08	130,82	111,67
N°2	100,31	115,12	101,11	128,47	113,57
N°3	93,21	108,42	102,39	125,74	110,69



# 8. RDE FAMILY CRITERIA

Family reference : 6-JT1-27-2

# 9. DECLARED CO2 VALUES FROM COC

CO₂ Emission (g/km)	Vehicle N°1	Vehicle N°2	Vehicle N°3
Low	116	116	116
Mid	104	104	104
High	110	110	110
Extra-High	151	151	151
Combined	124	124	124

# 10. TEST CONDITIONS FOR RDE TEST

	Vehicle N°1	Vehicle N°2	Vehicle N°3
Date of tests	07/04/2022	12/04/2022	14/04/2022
Place of tests	Montlhéry, France	Montlhéry, France	Montlhéry, France
Hot start	yes	no	yes
Odometer value at test start (km)	18176	22179	19063
Odometer value at test end (km)	18262	22263	19151
Artificial payload (% deviation from the payload)	27	49	37
PEMS validation procedure (carried out on tested vehicles)	carried out	carried out	carried out





# 11. POLLUTANT EMISSIONS - RDE

	Vehicle		N° 1			N° 2			N° 3	
Poli	lutants emissions	NOx [mg/km]	CO [mg/km]	PN [#.10 <sup>11</sup> /km]	NOx [mg/km]	CO [mg/km]	PN [#.10 <sup>11</sup> /km]	NOx [mg/km]	CO [mg/km]	PN [#.10 <sup>11</sup> /km]
	Measured values m <sub>RDE,u</sub>	2,8	45,4	0,56	2,8	94,0	0,94	2,8	104,9	0,62
	Evaluation factor RFu	1,0000				1,0000			1,0000	
Urban trip	Calculated values MRDE,u	2,8	45,4	0,56	2,8	94,0	0,94	2,8	104,9	0,62
	Regeneration factors (Ki)	-	-	-	-	-	-	-	-	-
	Final values	2,8	45,4	0,56	2,8	94,0	0,94	2,8	104,9	0,62
	Conformity factors	0,05	s.o. / <i>n.a.</i>	0,09	0,05	s.o. / n.a.	0,16	0,05	s.o. / n.a.	0,10
	Measured values m <sub>RDE,u</sub>	5,3	319,6	1,12	3,5	535,5	1,13	3,1	2266,1	1,39
	Evaluation factor RF <sub>u</sub>		1,0000		1,0000			1,0000		
Total trip	Calculated values MRDE,u	5,3	319,6	1,12	3,5	535,5	1,13	3,1	2266,1	1,39
	Regeneration factors (Ki)			-		-	-	-	-	-
	Final values	5,3	319,6	1,12	3,5	535,5	1,13	3,1	2266,1	1,39
	Conformity factors	0,09	s.o. / <i>n.a.</i>	0,19	0,06	s.o. / n.a.	0,19	0,05	s.o. / <i>n.a.</i>	0,23
	Applicable Euro 6 limits	60	1000	6,0	60	1000	6,0	60	1000	6,0
Limit values	Conformity factors	1 + 0,43	s.o. / n.a.	1+ 0,50	1 + 0,43	s.o. / n.a.	1+ 0,50	1 + 0,43	s.o. / n.a.	1+ 0,50
	Not to exceed limits	85,8	s.o. / <i>n.a</i> .	9,0	85,8	s.o. / n.a.	9,0	85,8	s.o. / <i>n.a</i> .	9,0
	Final result		Compliant	t	ŀ	Compliant	t		Complian	t

n.a. : not applicable





# 12. MESURED CO2 EMISSION - RDE

Vehicle	Urban (g/km)	Rural (g/km)	Motorway (g/km)	Trip (g/km)
N°1	106,28	124,97	138,66	122,87
N°2	120,66	113,10	115,80	116,77
N°3	122,40	116,70	151,00	130,01

# 13. RDE TESTS CHARACTERISTICS

Parameter		N°1	N°2	N°3	Legislation bundaries
Trip Duration (min:s)		94:10	97:49	93:04	90-120min
Trip Distance (km)		88,22	85,29	88,28	> 46 km
Stop Duration (% of urban	)	9,9%	8,5%	9,3%	6-30%
	Urban	33,7% (30 km)	38,0% (32 km)	33,9% (30 km)	29-44% & > 16 km
Distance share (%) (and typical km- distance)	Rural	35,6% (31 km)	32,6% (28 km)	33,0% (29 km)	23-43% & > 16 km
distance	Motorway	30,7% (27 km)	29,5% (25 km)	33,2% (29 km)	23-43% & > 16 km
	Urban	31,98	30,57	32,23	15-40 km/h
Average Speed (km/h)	Rural	77,40	79,58	79,07	60-90 km/h
	Motorway	115,84	113,26	114,71	100-145 km/h
Motorway (>100km/h) (min	s)	12:26	10:44	12:12	> 5 min
Max altitude (m)		170	172	171	< 700m
Altitude difference (end-start)	(m)	3	65	15	< 100 m
Minimum Temperature (°C	:)	10,5	13,9	15,2	3°C (-2°C ; 3°C)
Maximum Temperature (°C	C)	13,6	19,7	18,8	30°C (30°C; 35°C)
	Urban	13,905	14,241	11,589	<=18.622 (m <sup>2</sup> /s <sup>3</sup> )
V*Apos_95% (W/kg) (m²/s³)	Rural	19,761	16,869	18,110	<=24.7 (m <sup>2</sup> /s <sup>3</sup> )
	Motorway	21,711	22,529	22,957	<=28.016 (m <sup>2</sup> /s <sup>3</sup> )
	Urban	0,201	0,214	0,238	>= 0.126 (m/s²)
RPA (m/s²)	Rural	0,083	0,085	0,115	>= 0.052 (m/s²)
	Motorway	0,104	0,080	0,119	>= 0.025 (m/s²)

# 14. EQUIPMENT USED FOR RDE TEST

Vehicle	PN (AVL)	Exhaust flowmeter (AVL)	Gaz analyser (AVL)
N°1	EMI0129	DEG0074	ANA0150
N°2	EMI0129	DEG0074	ANA0150
N°3	EMI0124	DEG0081	ANA0147





# 15. CORRELATION BETWEEN PEMS AND CVS

	Vehicle 1								
	PEMS result	CVS result	Difference	Difference	Tolerance	Assessment			
CO2 (g/km)	117,0	118,3	-1,3	-1,1 %	+/- 10 g/km or 10 %	Passed			
CO (mg/km)	129,1	146,6	-17,5	-11,9 %	+/- 150 mg/km or 15 %	Passed			
NOx (mg/km)	2,5	2,0	0,5	27,0 %	+/- 15 mg/km or 15 %	Passed			
PN (#/km)	5,4E+10	5,3E+10	1,5E+09	2,8 %	+/- 1,0E11#/km <i>or</i> 50%	Passed			
Distance (m)	22708	23263	-555	•	+/- 250m	Failed			

Y	Vehicle 2								
	PEMS result	CVS result	Difference	Difference	Tolerance	Assessment			
CO2 (g/km)	117,2	116,3	0,9	0,8 %	+/- 10 g/km or 10 %	Passed			
CO (mg/km)	79,8	90,2	-10,4	-11,5 %	+/- 150 mg/km or 15 %	Passed			
NOx (mg/km)	5,2	5,0	0,1	2,7 %	+/= 15 mg/km or 15 %	Passed			
PN (#/km)	2,3E+11	2,6E+11	-2,5E+10	-10,1 %	+/- 1,0E11#/km or 50%	Passed			
Distance (m)	22970	23269	-299	-	+/- 250m	Failed			

	Vehicle 3									
	PEMS result	CVS result	Difference	Difference	Tolerance	Assessment				
CO2 (g/km)	121,9	118,6	3,30	2,8 %	+/- 10 g/km or 10 %	Passed				
CO (mg/km)	108,4	110,9	-2,5	-2,3 %	+/- 150 mg/km or 15 %	Passed				
NOx (mg/km)	1,8	1,9	-0,2	-8,3 %	+/- 15 mg/km or 15 %	Passed				
PN (#/km)	4,9E+10	5,9E+10	-9,1E+09	-15,5 %	+/- 1,0E11#/km or 50%	Passed				
Distance (m)	22855	23253	398		+/ <b>- 250m</b>	Failed				



Annex 2 "Appendices 1 of the selected vehicles"

# Appendice 1 Criteria for vehicle selection and failed vehicles decision Selection of Vehicles for In Service Conformity Emissions Testing

x=exclusion criteria	& reported	Confidential	
1		x	24/03/2022
		х	UTAC
		х	UTAC / Montlhéry
	Х		GERMANY
1			
	х	x	D MY400
x			24 480 km
x	4		28/01/2021
	х		xxxxxxxxxxx66533
	х		715/2007*2018/1832AMEURO6
х	х		GERMANY
	х		UX250H (ZA1)
	х		M20A
	х		1.987
	х		112
	x		CVT
	x		FWD
	х		225/50 R18
x	х		No
	X	x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X

	Vehicle Examination and Maintenance	X = exclusion criteria / F = faulty vehicle	X = checked and reported	
1	Fuel tank level (full / empty) Is the fuel reserve light ON ? If yes, refuel before test		х	Level done with reference fuel after enptying procedure (Fuel form available in the folder)
2	Are there any warning lights on the instrument panel activated indicating a vehicle or exhaust after-treatment system malfunctioning that cannot be resolve by normal maintenance? (Malfunction Indication Light, Engine Service Light, etc?)  If yes, the vehicle cannot be selected	х	х	No
3	Is the SCR light on after engine-on? If yes, the AdBlue should be filled in, or the repair executed before the vehicle is used for testing	х		No
4	Visual inspection exhaust system Check leaks between exhaust manifold and end of tailpipe. Check and document (with photos) If there is damage of leaks, the vehicle is declared faulty	х		No leak detected
5	Exhaust gas relevant components Check and document (with photos) all emissions relevant components for damage If there is damage, the vehicle is declared faulty	х		Ok (see photos)
6	<b>Evap system:</b> Pressurize fuel-system (from canister side), testing for leaks in a constant ambient temperature environment, FID sniff test around and in the vehicle. If the FID sniff test is not passed, the vehicle is declared faulty	х		-
7	Fuel sample Collect fuel sample from the fuel tank		х	Fuel form in the folder
8	Air filter and oil filter Check for contamination and damage and change if damaged or heavily contaminated of less than 800 km before the next recommended change		x	Ok
9	Window washer fluid (only for evaporative testing) Remove window washer fluid and fill tank with hot water		Х	-
10	Wheels (front and rear) Check whether the wheels are freely moveable of blocked by the brake If not, the vehicle cannot be selected	х		No hard point

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_				
11	Tyres (only for evaporative testing) Remove spare tyre, change to stabilised tyres if the tyres were changes less than 15 000 km ago Use summer and all season tyres only		х	-
12	Drive belts & cooler cover In case of damage, the vehicle is declared faulty Document with photos	х		Ok
13	Check fluid levels Check the max. and min. levels (engine oil, cooling liquid) / top up if below minimum		х	Levels OK
14	Filler flap (only for evaporative testing) Check overfill line within filler flap is completely free of residues or flush the hose with hot water.		х	-
15	Vacuum hoses and electrical wiring Check all for integrity. In case of damage, the vehicle is declared faulty. Document with photos	х		Ok
16	Injection valves / cabling Check all cables and fuel lines. In case of damage, the vehicle is declared faulty. Document with photos	Х		Ok
17	<b>Ignition cable (gasoline)</b> Check spark plugs, cables, etc. <i>In case of samage, replace them</i>		х	0k
18	EGR & Catalyst, Particle Filter Check all cables, wires and sensors In case of tampering, the vehicle cannot be selected. In case of damage, the vehicle is declared faulty Document with photos	x		Ok
19	Safety condition Check tyres, vehicle's body, electrical and braking system status are in safe conditions for the test and respect road traffic rules If not, the vehicle cannot be selected	x		Ok
20	Semi-trailer Are there electric cables for semi-traile connection, where required ?		х	-
21	Aerodynamic modifications Verify no aftermarket aerodynamics modification that cannot be removed before testing was made (roof boxes, load racking, spoilers, etc.) and no standard aerodynamics components are missing (front deflectors, diffusers, splitters, etc.) If yes, the vehicle cannot be selected. Document with photos.	x		No modification

SIGNED

Check if less than 800 km away from next 22 scheduled service, if yes, then perform the service		x	Ok
All checks requiring OBD connections to be performed before and/or after the end of testing		х	Done
Powertrain Control Module calibration part number and checksum		х	Cal ID : 898637623000 N° Cal : \$f8 \$c7 \$cf \$8d
25 OBD diagnosis (before or after the emissions test)		х	No default
OBD Service Mode 09 Query (before or after the emissions test) Read Service Mode 09. Record the information		х	No default
OBD mode 7 (before or after the emissions test) Read Service Mode 07. Record the information	9		No default



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Appendix 1

### Criteria for vehicle selection and failed vehicles decision

### Selection of Vehicles for In Service Conformity Emissions Testing

Date: 17.03.2022			x
Name of investigator:			X
Location of test: Linas			х
Country of registration (in EU only): Germany		x	
Vehicle Characteristics	x = Exclusion Criteria	X = Checked and reported	
Registration plate number:		x	x
Mileage: 20.000 km  The vehicle must have between 15 000 km (or 30 000 km for testing evaporative emissions) and 100 000 km	x		
Date of first registration: 28.01.2021  The vehicle must be between 6 months (or 12 months for testing evaporative emissions) and 5 years old	x		
VIN: XXXXXXXXXXXX66533		x	
Emission class and character: Euro 6 / 36AM		x	
Country of registration: Germany The vehicle must be registered in the EU	x	x	
Model: LexusUX250		x	
Engine code: M20A		x	
Engine volume (I): 1.987		x	
Engine power (kW): 112		x	
Gearbox type (auto/manual): A/T		x	
Drive axle (FWD/AWD/RWD): FWD		x	
Tyre size (front and rear if different): 225/50 R1	8	x	
Is the vehicle involved in a recall or service campaign? If yes: Which one? Has the campaign repairs already been done? The repairs must have been done	х	x	



### Vehicle Owner Interview

(the owner will only be asked the main questions and shall have no knowledge of the implications of the replies)

Name of the owner (only available to the accredited inspection body or laboratory/technical service)			x
Contact (address / telephone) (only available to the accredited inspection body or laboratory/technical service)			x
	,		
How many owners did the vehicle have? 1		x	
Did the odometer not work?  If yes, the vehicle cannot be selected.	х		
Was the vehicle used for one of the following?			
As car used in show-rooms?		x	
As a taxi?		x	
As delivery vehicle?		x	
For racing / motor sports?	x		
As a rental car?		x	
Has the vehicle carried heavy loads over the specifications of the manufacturer?  If yes, the vehicle cannot be selected.	x		
Have there been major engine or vehicle repairs? No		x	
Have there been unauthorised major engine or vehicle repairs?  If yes, the vehicle cannot be selected.	x		
Has there been a power increase/tuning?  If yes, the vehicle cannot be selected.	x		
Was any part of the emissions after-treatment and/or the fuel system replaced? Were original parts used? If original parts were not used, the vehicle cannot be selected.	х	х	
Was any part of the emissions after-treatment system permanently removed?  If yes, the vehicle cannot be selected No	x		
Were there any unauthorised devices installed (Urea killer, emulator, etc)?  If yes, the vehicle cannot be selected No	x		



Was the vehicle involved in a serious accident? Provide a list of damage and repairs done afterwards No		x	
Has the car been used with a wrong fuel type (i.e. gasoline instead of diesel) in the past? Has the car been used with non-commercially available EU-quality fuel (black market, or blended fuel?)  If yes, the vehicle cannot be selected.	x		
Did you use air-fresher, cockpit-spray, brake cleaner or other high hydrocarbon emission source around the vehicle during the last month? If yes, the vehicle cannot be selected for evaporative testing.	х		
Was there a gasoline spill in the inside or outside of the vehicle during the last 3 months?  If yes, the vehicle cannot be selected for evaporative testing.	x		
Did anyone smoke in the car during the last 12 months?  If yes, the vehicle cannot be selected for evaporative testing No	x		
Did you apply corrosion protection, stickers, under seal protection, on any other potential sources of volatile compounds to the car?  If yes, the vehicle cannot be selected for evaporative testing No	x		
Was the car repainted?  If yes, the vehicle cannot be selected for evaporative testing No	x		
Where do you use your vehicle more often?  40 % motorway  30 % rural		x x	
30 % urban		х	
Did you drive the vehicle in a non EU Member State for more than 10 % of driving time?  If yes, the vehicle cannot be selected No	*	_	
In which country was the vehicle refuelled during the last two times?  If the vehicle was refuelled the last two times outside a state applying the EU Fuel Standards, the vehicle cannot be selected.  Germany	х		
Has a fuel additive, not approved by the manufacturer been used?  If yes then the vehicle cannot be selected.	х		
Has the vehicle been maintained and used in accordance with the manufacturer's instructions?  If not, the vehicle cannot be selected.	X		



Full service and repair history including any re-works  If the full documentation cannot be provided, the vehicle cannot be selected.  Dokument attached	x		
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Vehicle Examination and Maintenance

X = Exclusion Criteria/ F = Faulty Vehicle  $X = checked \ and \\ reported$ 





# Appendice 1 Criteria for vehicle selection and failed vehicles decision Selection of Vehicles for In Service Conformity Emissions Testing

	x=exclusion criteria	X = checked & reported	Confidential	
Date :			х	07/04/2022
Name of investigator :			X	UTAC
Location of test :			х	UTAC / Montlhéry
Country of registration (in EU only):		X		GERMANY
4	1		1	
Registration plate number :		х	х	-
Mileage : The vehicle must have between 15 000 km (or 30 000 km for testing evaporative emissions) and 100 000 km	х			22 155 km
Date of first registration : The vehicle must be between 6 months (or 12 months for testing evaporative emissions) and 5 years old	х			03/2021
VIN:		х		xxxxxxxxxxx70606
Emission class and character :		x		715/2007*2018/1832AMEURO6
Country of registration : The vehicle must be registered in the EU	x	х		GERMANY
Model :		х		UX250H (ZA1)
Engine code :		х		M20A
Engine volume [l] :		х		1.987
Engine power (kW) :		х		112
Gearhox type (auto/manual) :		x		CVT
Drive axle (FWD/AWD/RWD) :		х		FWD
Tire size (front and rear if different) :		х		225/50 R18
Is the vehicle involved in a recall or service campain ? If yes : Which one ? Has the campain repairs already been done ? The repairs must have been done	x	х		No

	Vehicle Examination and Maintenance	X = exclusion criteria / F = faulty vehicle	X = checked and reported	
1	Fuel tank level (full / empty) Is the fuel reserve light ON? If yes, refuel before test		х	Level done with reference fuel after enptying procedure (Fuel form available in the folder)
2	Are there any warning lights on the instrument panel activated indicating a vehicle or exhaust after-treatment system malfunctioning that cannot be resolve by normal maintenance? (Malfunction Indication Light, Engine Service Light, etc?)  If yes, the vehicle cannot be selected	х	х	No
3	Is the SCR light on after engine-on? If yes, the AdBlue should be filled in, or the repair executed before the vehicle is used for testing	х		No
4	Visual inspection exhaust system Check leaks between exhaust manifold and end of tailpipe. Check and document (with photos) If there is damage of leaks, the vehicle is declared faulty	х		No leak detected
5	Exhaust gas relevant components Check and document (with photos) all emissions relevant components for damage If there is damage, the vehicle is declared faulty	х		Ok (see photos)
6	<b>Evap system:</b> Pressurize fuel-system (from canister side), testing for leaks in a constant ambient temperature environment, FID sniff test around and in the vehicle. If the FID sniff test is not passed, the vehicle is declared faulty	х		-
7	Fuel sample Collect fuel sample from the fuel tank		х	Fuel form in the folder
8	Air filter and oil filter Check for contamination and damage and change if damaged or heavily contaminated of less than 800 km before the next recommended change		x	Uk
9	Window washer fluid (only for evaporative testing) Remove window washer fluid and fill tank with hot water		Х	-
10	Wheels (front and rear) Check whether the wheels are freely moveable of blocked by the brake If not, the vehicle cannot be selected	х		No hard point

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11	Tyres (only for evaporative testing) Remove spare tyre, change to stabilised tyres if the tyres were changes less than 15 000 km ago Use summer and all season tyres only		х	-
12	Drive belts & cooler cover In case of damage, the vehicle is declared faulty Document with photos	х		Ok
13	Check fluid levels Check the max. and min. levels (engine oil, cooling liquid) / top up if below minimum		х	Levels OK
14	Filler flap (only for evaporative testing) Check overfill line within filler flap is completely free of residues or flush the hose with hot water.		х	-
15	Vacuum hoses and electrical wiring Check all for integrity. In case of damage, the vehicle is declared faulty. Document with photos	х		Ok
16	Injection valves / cabling Check all cables and fuel lines. In case of damage, the vehicle is declared faulty. Document with photos	Х		Ok
17	<b>Ignition cable (gasoline)</b> Check spark plugs, cables, etc. <i>In case of samage, replace them</i>		х	0k
18	EGR & Catalyst, Particle Filter Check all cables, wires and sensors In case of tampering, the vehicle cannot be selected. In case of damage, the vehicle is declared faulty Document with photos	x		Ok
19	Safety condition Check tyres, vehicle's body, electrical and braking system status are in safe conditions for the test and respect road traffic rules If not, the vehicle cannot be selected	x		Ok
20	Semi-trailer Are there electric cables for semi-traile connection, where required ?		х	-
21	Aerodynamic modifications Verify no aftermarket aerodynamics modification that cannot be removed before testing was made (roof boxes, load racking, spoilers, etc.) and no standard aerodynamics components are missing (front deflectors, diffusers, splitters, etc.) If yes, the vehicle cannot be selected. Document with photos.	x		No modification

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Check if less than 800 km away from next 22 scheduled service, if yes, then perform the service		x	Ok
All checks requiring OBD connections to be performed before and/or after the end of testing		х	Done
Powertrain Control Module calibration part number and checksum		х	Cal ID : 898637623000 N° Cal : \$f8 \$c7 \$cf \$91
25 OBD diagnosis (before or after the emissions test)		х	No default
OBD Service Mode 09 Query (before or after the emissions test) Read Service Mode 09. Record the information		х	No default
OBD mode 7 (before or after the emissions test) Read Service Mode 07. Record the information	9		No default



Confidential

Appendix 1

### Criteria for vehicle selection and failed vehicles decision

### Selection of Vehicles for In Service Conformity Emissions Testing

Date: 04.04.2022			x
Name of investigator:			x
Location of test: Linas			x
Country of registration (in EU only): Germany		x	
Vehicle Characteristics	x = Exclusion Criteria	X = Checked and reported	
Registration plate number:		x	x
Mileage: 18.943 km  The vehicle must have between 15 000 km (or 30 000 km for testing evaporative emissions) and 100 000 km	x		
Date of first registration: 10/2020  The vehicle must be between 6 months (or 12 months for testing evaporative emissions) and 5 years old	x		
VIN: XXXXXXXXXXXX55045		x	
Emission class and character: Euro6 AM		x	
Country of registration: Germany The vehicle must be registered in the EU	x	x	
Model: Lexus UX 250		x	
Engine code: M20A		x	
Engine volume (l): 1.987		x	
Engine power (kW): 112 KW		x	
Gearbox type (auto/manual): A/T		X	
Drive axle (FWD/AWD/RWD): FWD		x	
Tyre size (front and rear if different): 18 inch	4	х	
Is the vehicle involved in a recall or service campaign? If yes: Which one? Has the campaign repairs already been done?  The repairs must have been done  No	x	x	



### Vehicle Owner Interview

(the owner will only be asked the main questions and shall have no knowledge of the implications of the replies)

Name of the owner (only available to the accredited inspection body or laboratory/technical service)	1		x
Contact (address / telephone) (only available to the accredited inspection body or laboratory/technical service)	1		x
How many owners did the vehicle have?		x	
Did the odometer not work?  If yes, the vehicle cannot be selected.	x		
Was the vehicle used for one of the following?			
As car used in show-rooms?		x	
As a taxi?		x	
As delivery vehicle?		x	
For racing / motor sports?	x		
As a rental car?		x	
Has the vehicle carried heavy loads over the specifications of the manufacturer?  If yes, the vehicle cannot be selected.	x		
Have there been major engine or vehicle repairs? No		x	
Have there been unauthorised major engine or vehicle repairs?  If yes, the vehicle cannot be selected.	x		
Has there been a power increase/tuning?  If yes, the vehicle cannot be selected.	x		
Was any part of the emissions after-treatment and/or the fuel system replaced? Were original parts used? If original parts were not used, the vehicle cannot be selected.	х	х	
Was any part of the emissions after-treatment system permanently removed?  If yes, the vehicle cannot be selected	x		
Were there any unauthorised devices installed (Urea killer, emulator, etc)?  If yes, the vehicle cannot be selected	x		



Was the vehicle involved in a serious accident? Provide a list of damage and repairs done afterwards $${\rm No}$$		x	
Has the car been used with a wrong fuel type (i.e. gasoline instead of diesel) in the past? Has the car been used with non-commercially available EU-quality fuel (black market, or blended fuel?)  If yes, the vehicle cannot be selected.	x		
Did you use air-fresher, cockpit-spray, brake cleaner or other high hydrocarbon emission source around the vehicle during the last month? If yes, the vehicle cannot be selected for evaporative testing.	x		
Was there a gasoline spill in the inside or outside of the vehicle during the last 3 months?  If yes, the vehicle cannot be selected for evaporative testing.	х		
Did anyone smoke in the car during the last 12 months?  If yes, the vehicle cannot be selected for evaporative testing	x		
Did you apply corrosion protection, stickers, under seal protection, on any other potential sources of volatile compounds to the car?  If yes, the vehicle cannot be selected for evaporative testing	x		
Was the car repainted?  If yes, the vehicle cannot be selected for evaporative testing  No	х		
Where do you use your vehicle more often?  40 % motorway  30 % rural  30 % urban		x x	
Did you drive the vehicle in a non EU Member State for more than 10 % of driving time?  If yes, the vehicle cannot be selected  No	*	_	
In which country was the vehicle refuelled during the last two times?  If the vehicle was refuelled the last two times outside a state applying the EU Fuel Standards, the vehicle cannot be selected.  Germany	х		
Has a fuel additive, not approved by the manufacturer been used?  If yes then the vehicle cannot be selected.	X		
Has the vehicle been maintained and used in accordance with the manufacturer's instructions?  If not, the vehicle cannot be selected.  Yes	х		



Full service and repair history including any re-works  If the full documentation cannot be provided, the vehicle cannot be selected.  Dokument attached	x		
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Vehicle Examination and Maintenance

X = Exclusion Criteria/ F = Faulty Vehicle  $X = checked \ and \\ reported$ 





# Appendice 1 Criteria for vehicle selection and failed vehicles decision Selection of Vehicles for In Service Conformity Emissions Testing

	x=exclusion criteria	X = checked & reported	Confidential	
Date :			x	08/04/2022
Name of investigator :			х	UTAC
Location of test :			х	UTAC / Montlhéry
Country of registration (in EU only):		Х		GERMANY
4	'		'	
Registration plate number :		х	х	-
Mileage : The vehicle must have between 15 000 km (or 30 000 km for testing evaporative emissions) and 100 000 km	x			18 951 km
Date of first registration : The vehicle must be between 6 months (or 12 months for testing evaporative emissions) and 5 years old	x			10/2020
VIN:		х		xxxxxxxxxxx55045
Emission class and character :		x		715/2007*2018/1832AMEURO6
Country of registration : The vehicle must be registered in the EU	х	х		GERMANY
Model :		х		UX250H (ZA1)
Engine code :		х		M20A
Engine volume [l] :		х		1.987
Engine power (kW) :		х		112
Gearhox type (auto/manual) :		х		CVT
Drive axle (FWD/AWD/RWD) :		х		FWD
Tire size (front and rear if different) :		х		225/50 R18
Is the vehicle involved in a recall or service campain? If yes: Which one? Has the campain repairs already been done? The repairs must have been done	x	x		No

	Vehicle Examination and Maintenance	X = exclusion criteria / F = faulty vehicle	X = checked and reported	
1	Fuel tank level (full / empty) Is the fuel reserve light ON? If yes, refuel before test		х	Level done with reference fuel after enptying procedure (Fuel form available in the folder)
2	Are there any warning lights on the instrument panel activated indicating a vehicle or exhaust after-treatment system malfunctioning that cannot be resolve by normal maintenance? (Malfunction Indication Light, Engine Service Light, etc?)  If yes, the vehicle cannot be selected	х	х	No
3	Is the SCR light on after engine-on? If yes, the AdBlue should be filled in, or the repair executed before the vehicle is used for testing	х		No
4	Visual inspection exhaust system Check leaks between exhaust manifold and end of tailpipe. Check and document (with photos) If there is damage of leaks, the vehicle is declared faulty	X		No leak detected
5	Exhaust gas relevant components Check and document (with photos) all emissions relevant components for damage If there is damage, the vehicle is declared faulty	х		Ok (see photos)
6	<b>Evap system:</b> Pressurize fuel-system (from canister side), testing for leaks in a constant ambient temperature environment, FID sniff test around and in the vehicle. If the FID sniff test is not passed, the vehicle is declared faulty	х		-
7	Fuel sample Collect fuel sample from the fuel tank		х	Fuel form in the folder
8	Air filter and oil filter Check for contamination and damage and change if damaged or heavily contaminated of less than 800 km before the next recommended change		x	Uk
9	Window washer fluid (only for evaporative testing) Remove window washer fluid and fill tank with hot water		Х	-
10	Wheels (front and rear) Check whether the wheels are freely moveable of blocked by the brake If not, the vehicle cannot be selected	х		No hard point

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11	Tyres (only for evaporative testing) Remove spare tyre, change to stabilised tyres if the tyres were changes less than 15 000 km ago Use summer and all season tyres only		х	-
12	Drive belts & cooler cover In case of damage, the vehicle is declared faulty Document with photos	x		Ok
13	Check fluid levels Check the max. and min. levels (engine oil, cooling liquid) / top up if below minimum		х	Levels OK
14	Filler flap (only for evaporative testing) Check overfill line within filler flap is completely free of residues or flush the hose with hot water.		х	-
15	Vacuum hoses and electrical wiring Check all for integrity. In case of damage, the vehicle is declared faulty. Document with photos	x		Ok
16	Injection valves / cabling Check all cables and fuel lines. In case of damage, the vehicle is declared faulty. Document with photos	Х		Ok
17	<b>Ignition cable (gasoline)</b> Check spark plugs, cables, etc. <i>In case of samage, replace them</i>		х	0k
18	EGR & Catalyst, Particle Filter Check all cables, wires and sensors In case of tampering, the vehicle cannot be selected. In case of damage, the vehicle is declared faulty Document with photos	x		Ok
19	Safety condition Check tyres, vehicle's body, electrical and braking system status are in safe conditions for the test and respect road traffic rules If not, the vehicle cannot be selected	x		Ok
20	Semi-trailer Are there electric cables for semi-traile connection, where required ?		х	-
21	Aerodynamic modifications Verify no aftermarket aerodynamics modification that cannot be removed before testing was made (roof boxes, load racking, spoilers, etc.) and no standard aerodynamics components are missing (front deflectors, diffusers, splitters, etc.) If yes, the vehicle cannot be selected. Document with photos.	x		No modification

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Check if less than 800 km away from next 22 scheduled service, if yes, then perform the service		x	Ok
All checks requiring OBD connections to be performed before and/or after the end of testing		х	Done
Powertrain Control Module calibration part number and checksum		х	Cal ID : 898637623000 N° Cal : \$f8 \$c7 \$cf \$91
25 OBD diagnosis (before or after the emissions test)		х	No default
OBD Service Mode 09 Query (before or after the emissions test) Read Service Mode 09. Record the information		х	No default
OBD mode 7 (before or after the emissions test) Read Service Mode 07. Record the information	9		No default



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Appendix 1

### Criteria for vehicle selection and failed vehicles decision

### Selection of Vehicles for In Service Conformity Emissions Testing

Date: 25.03.2022			х
Name of investigator:			x
Location of test: Linas			x
Country of registration (in EU only): Germany		x	
Vehicle Characteristics	x = Exclusion Criteria	X = Checked and reported	
Registration plate number:		x	x
Mileage: 22.000 km			
The vehicle must have between 15 000 km (or 30 000 km for testing evaporative emissions) and 100 000 km	x		
Date of first registration: 03/2021			
The vehicle must be between 6 months (or 12 months for testing evaporative emissions) and 5 years old	X		
VIN: XXXXXXXXXXX70606		x	
Emission class and character: Euro6 AM		x	
Country of registration: Germany The vehicle must be registered in the EU	x	x	
Model: Lexus UX 250		x	
Engine code: M20A		x	
Engine volume (I): 1.987		x	
Engine power (kW): 112 KW		X	
Gearbox type (auto/manual): A/T		X	
Drive axle (FWD/AWD/RWD): FWD		x	
Tyre size (front and rear if different): 18 inch		x	
Is the vehicle involved in a recall or service campaign? If yes: Which one? Has the campaign repairs already been done? The repairs must have been done	x	x	



### Vehicle Owner Interview

(the owner will only be asked the main questions and shall have no knowledge of the implications of the replies)

Name of the owner (only available to the accredited inspection body or laboratory/technical service)	1		x
Contact (address / telephone) (only available to the accredited inspection body or laboratory/technical service)	1		x
How many owners did the vehicle have?		x	
Did the odometer not work?  If yes, the vehicle cannot be selected.	x		
Was the vehicle used for one of the following?			
As car used in show-rooms?		x	
As a taxi?		x	
As delivery vehicle?		x	
For racing / motor sports?	x		
As a rental car?		x	
Has the vehicle carried heavy loads over the specifications of the manufacturer?  If yes, the vehicle cannot be selected.	x		
Have there been major engine or vehicle repairs? No		x	
Have there been unauthorised major engine or vehicle repairs?  If yes, the vehicle cannot be selected.	x		
Has there been a power increase/tuning?  If yes, the vehicle cannot be selected.	x		
Was any part of the emissions after-treatment and/or the fuel system replaced? Were original parts used? If original parts were not used, the vehicle cannot be selected.	х	х	
Was any part of the emissions after-treatment system permanently removed?  If yes, the vehicle cannot be selected	x		
Were there any unauthorised devices installed (Urea killer, emulator, etc)?  If yes, the vehicle cannot be selected	x		



cident? Provide wards No		x	
fuel type (i.e. ? Has the car able EU-quality	x		
rake cleaner or ce around the es, the vehicle	x		
r outside of the for evaporative No	x		
g the last 12 for evaporative	x		
kers, under seal rces of volatile for evaporative	x		
for evaporative	x		
ften?			
% motorway		x	
30 % rural		x	
30 % urban		x	
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Full service and repair history including any re-works  If the full documentation cannot be provided, the vehicle cannot be selected.  Dokument attached	x		
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Vehicle Examination and Maintenance

X = Exclusion Criteria/ F = Faulty Vehicle  $X = checked \ and \\ reported$ 



