

Manufacturer : Toyota  
Type : **XE1**  
(IS200 Compressor by TMG)

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## TECHNICAL REPORT

according to Council Directive on the approximation of the laws of the  
member States relating to the

### Permissible sound level and the exhaust system of motor vehicles

**70/157/EEC**

dated : **06.02.1970**

amended by

**96/29/EC**

dated : **27.03.1996**

Structure of report :

1. Test object(s) and general test information
2. Test minutes
3. Remark about concerning tested objects
4. Appendices
5. Statement of conformity

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## 1. Test object(s) and general test information

### 1.1. Test object(s)

1.1.1. Vehicle type : **XE1**

Identification No. : JTDBS182000009893 (mechanical gear box, M6)  
 JTDBS182700037187 (automatik gear box, A4)

Model : Lexus IS 200 Compressor

Sort/Categorie : **M<sub>1</sub>**

### 1.1.2. Mass of the vehicle

Test weight (incl. driver) [kg] : 1475 (M6)  
 1485 (A4)

Technical permissible maximum  
 mass > 2800 kg : no

### 1.1.3. Engine

Manufacturer : Toyota

Manufacturer's engine code : 1G-FE

Working principle : 4 stroke, positive ignition

Enginecapacity (cm<sup>3</sup>) : 1988

Maximum net power : 151 kW at 6300 min<sup>-1</sup>

1.1.4. Transmission : automatic gearbox / non automatic gearbox

Ratio of gearbox : 4 / 6

Final drive ratio : 4,100 / 3,909

1.1.5. Brake : hydraulic/~~pneumatic~~ /  
~~combined hydraulic pneumatic~~<sup>2)</sup>

2) Delete where inapplicable

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1.1.6. Vehicle equipment : 2 catalysts exhaust manifold, 1 catalyst under floor, 1 middle silencer, 1 rear silencer

Exhaust System	Catalyst Exhaust manifold	Catalyst Underfloor	middle silencer	rear silencer
Type/Marking	70020	L10	37019	17047

Air intake system/air filter : Dry, paper element

Type / Identification : AM 27931

Insulation engine compartment/ at the engine : insulation hood panel, silencer engine under cover

Tyre size  
Axle 1 and Axle 2 : 215/45R17

1.1.7. Exhaust muffler equipped with / without fibrous material

The exhaust muffler were conditioned by : by pulsation

1.2. General test information

1.2.1. Order issued by : Toyota Motorsport GmbH (TMG)

1.2.2. Test object(s) / test vehicle received on : 18.04.2000

1.2.3. Test date : 18.04.2000 (M6)  
07.06.2000 (A4)

1.2.4. Test site : Amt für Straßenverkehr und Schifffahrt, Ecuwillens (CH)

1.2.5. Remark : The results of the test refer exclusively to the object(s) mentioned under point 1.1 of this report.

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## 2. Test minutes

- 2.1. Test facilities : The measuring equipment used was in compliance with the test requirements.

- 2.2. Conducted Tests

Test conditions <sup>1)</sup>

Kind of gearbox	M6	A4
2 <sup>nd</sup> gear, not more than 4 speed		
2 <sup>nd</sup> and 3 <sup>rd</sup> gear, more than 4 speed	X	
automatic gearbox with selector gear lever, step		X
automatic gearbox w/o selector gear mechanism		
several gears		
$n = \frac{3}{4} S \quad v = \text{ km/h}$		
$v = 30 \text{ km/h}$		
$v = 40 \text{ km/h}$		
$v = 50 \text{ km/h}$	X	X
$v = \frac{3}{4} v_{\max} = \text{ km/h}$		
95% fuel feed		
$v \text{ A-A} = 60 \text{ km/h}$		
$v \text{ B-B (3rd gear)} = \text{ km/h}$		
$n = \frac{1}{2} S \quad v = \text{ km/h}$		
$v = \text{ km/h}$		

<sup>1)</sup> Delete where inapplicable

- 2.3. Test results :

Sound level of moving vehicle : automatic gearbox / ~~non-automatic gearbox~~

Measurement results	1 <sup>st</sup> measur ement dB(A) <sup>1)</sup>	2 <sup>nd</sup> measur ement dB(A) <sup>1)</sup>	3 <sup>rd</sup> measure ment dB(A) <sup>1)</sup>	Position of gear lever  stabilised speed
Left-hand side	68,8	68,4	69,5	D / 50 km/h
Right-hand side	70,2	70,5	70,9	
Test result	70,9 dB(A)			
Type approval value	71 dB(A)			
Limit	74 dB(A)			

<sup>1)</sup> measurement values are given with the 1 dB(A) reduction in acc. with the provisions of section 5.2.2.5.1. (paragrapg 6.2.2.1.) of Annex 1.

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Sound level of stationary vehicle:

	dB(A)	Engine speed
1 <sup>st</sup> measurement	77,5	4725 min <sup>-1</sup>
2 <sup>nd</sup> measurement	76,5	
3 <sup>rd</sup> measurement	77,2	
Test result	77,5	dB(A) / E <sup>1)</sup>
Type approval value	78	dB(A)

1) „E“ indicates that the measurements in question were conducted in accordance with this Directive.

Sound level of compressed air noise: not applicable

### 2.3. Test results :

Sound level of moving vehicle : ~~automatic gearbox~~ / non automatic gearbox

Measurement results		1 <sup>st</sup> measur ement dB(A) <sup>1)</sup>	2 <sup>nd</sup> measur ement dB(A) <sup>1)</sup>	3 <sup>rd</sup> measur ement dB(A) <sup>1)</sup>	Position of gear lever  stabilised speed
Left-hand side	2 <sup>nd</sup>	74,8	75,2	--	2 <sup>nd</sup> / 50 km/h 3 <sup>rd</sup> / 50 km/h
	3 <sup>rd</sup>	70,9	71,5	--	
Right-hand side	2 <sup>nd</sup>	75,5	75,8	--	
	3 <sup>rd</sup>	71,5	71,2	--	
Test result		73,7    dB(A)			
Type approval value		74    dB(A)			
Limit		74    dB(A)			

1) measurement values are given with the 1 dB(A) reduction in acc. with the provisions of section 5.2.2.5.1. (paragrapg 6.2.2.1.) of Annex 1.

Sound level of stationary vehicle:

	dB(A)	Engine speed
1 <sup>st</sup> measurement	77,5	4725 min <sup>-1</sup>
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Test result	77,5	dB(A) / E <sup>1)</sup>
Type approval value	78	dB(A)

1) „E“ indicates that the measurements in question were conducted in accordance with this Directive.

Sound level of compressed air noise: not applicable

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### 3. Remark concerning tested object(s)

All versions of the **type** as stated in the information document of the EC Approval Certificate No. e11\*70/157\*96/20\*2585\*00 are covered by the tested **vehicle version(s)** and test object(s) respectively.

### 4. Appendices

Not applicable

### 5. Statement of conformity

The **type** described complies with the requirements mentioned on page 1.

The technical report comprises the pages 1 **to 6** and shall not be reproduced except in full without the written approval of the testing laboratory.

Cologne, **July 29, 2000**  
**Sh/pc**

**Dipl.-Ing. Heinz-Werner Stiehl**