



Work Package 5 – Deliverable 5

D5.5 ‘Approval of OEM vehicles (Hyundai ix35FCEV) for use by Municipality’

The Hyundai ix35 received its European type approval on 19th October 2012. This means that the vehicles are allowed to run in all European countries. A copy of the first page of the approval document can be found below.

In addition to the European type approval – local Danish approval was required.

When the 15 Hyundai ix35 fuel cell vehicles were to be delivered to the Municipality of Copenhagen, Hyundai Bill Import encountered some issues regarding registration of the vehicles. The Danish registration and the taxation of this, runs through several different systems that were not set up to handle hydrogen as a source of power for cars. This had to be created with the Danish taxation authorities and the Danish Car Importers Association who handles the manufacturers data used for basis of taxation of cars.

Registration of vehicles in Denmark (and other EU countries) are primarily based on data in COC documents (Certificate of Conformity). This data was transferred to the tax authority who through their system allows registration of the particular vehicles. Both the systems that send and receive the data could not use the COC documents data because several figures were left blank, i.e. because the vehicles has no CO₂ emission. The systems had to be changed, but also because the cars are tax exempt until 2015 the system also had to be able to allow this, which also required a change.

These issues were overcome and as such, the Danish registration of the Hyundai ix35 FCEVs was carried out from April 22nd -29th 2013 and completed so that the cars were ready for deployment in Copenhagen in June 2013.

See overleaf for copies of approval documents.



CERTIFICADO DE HOMOLOGACIÓN DE TIPO CE / EC TYPE-APPROVAL CERTIFICATE

Comunicación relativa a/ *Communication concerning the:*

- homologación CE/ *EC type approval* (1)
- extensión de homologación CE/ *extension of EC type approval* (1)
- denegación de homologación CE/ *refusal of EC type approval* (1)
- retirada de homologación CE/ *withdrawal of EC type approval* (1)

De un tipo de/ *Of a type of:*

- vehículo completo/ *complete vehicle* (1)
- vehículo completado/ *completed vehicle* (1)
- vehículo incompleto/ *incomplete vehicle* (1)
- vehículo con variantes completas e incompletas/ *vehicle with complete and incomplete variants* (1)
- vehículo con variantes completadas e incompletadas/ *vehicle with completed and incomplete variants* (1)

Con arreglo a la Directiva 2007/46/CE modificada en último lugar por el Reglamento (CE) N° 678/2011
With regard to the Directive 2007/46/EC as last amended by Regulation (EC) No. 678/2011

Informe n° KR12090026 del servicio técnico IDIADA con fecha de 19/10/2012
Report No. KR12090026 by technical service IDIADA dated 19/10/2012

Número de homologación de tipo CE / *EC type-approval number:* e9*KS07/46*0071*00
Motivo de la prórroga / *Reason for extension:* ---


SECCION I / *SECTION I*

- 0.1. Marca (razón social) / *Make (trade name of manufacturer):* Hyundai
- 0.2. Tipo de vehículo / *Vehicle type:* LMFC
- 0.2.1. Denominación comercial / *Commercial name(s):* TUCSON, ix35
- 0.3. Medio de identificación del tipo, si está indicado en el vehículo (2) / *Means of identification of type if marked on the vehicle (2):* Ver documentación aportada / *See technical documentation*
- 0.3.1. Ubicación de esa marca / *Location of that marking:* Ver documentación aportada / *See technical documentation*
- 0.4. Categoría del vehículo(3) / *Category type(3):* M1
- 0.5. Nombre y dirección del fabricante / *Manufacturer's name and address*
Hyundai Motor Company
231, Yangjae-dong, Seocho-gu, Seoul, 137-938, Korea
Nombre y dirección del fabricante del vehículo base / Name and address of manufacturer of the base vehicle (1)(4):
Nombre y dirección del fabricante de la última fase del vehículo incompleto / Name and address of manufacturer of the latest built stage of the incomplete vehicle (1)(4):
Nombre y dirección del fabricante del vehículo completado / Name and address of manufacturer of the completed vehicle (1)(4):
- 0.8. Nombre y dirección de la planta o plantas de montaje / *Name(s) and address(es) of assembly plant(s):*
Ulsan plant, 700, Yangjeong-dong, Buk-gu, Ulsan, 683-791, Korea
- 0.9. En su caso, nombre y dirección del representante autorizado del fabricante / *Name and address of the manufacturer's authorized representative (if any):*
Hyundai Motor Europe Technical Center GmbH, Hyundai-Platz, 65428, Russelsheim, Germany



(1) Táchese lo que no proceda / *Delete where not applicable*
(2) Si no está disponible en el momento de otorgar la homologación, este apartado deberá ser completado en el momento de la comercialización del vehículo. / *If not available at the time of granting the type-approval, this item shall be completed at the latest when the vehicle is introduced on the market.*
(3) Como se define en el anexo II, sección A / *As defined in Annex II.A.*
(4) Véase la cara 2 / *See side 2*

Hyundai ix35 European type approval (page 1 of 32 – show for reference)

COMPLETE VEHICLES		VEHICLE CATEGORY M1 (complete and completed vehicles)		Bodywork	
EEC CERTIFICATE OF CONFORMITY		General construction characteristics		38. Code for bodywork : AC(station wagon)	
The undersigned S. B. CHO		1. Number of axles : 2 and wheels 4		40. Colour of vehicle : white	
Position GENERAL MANAGER		3. Powered axle(number,position,interconnector) : 1		41. Number and configuration of doors : 4 ; 2 left, 2 right	
EXPORT PRODUCT MARKETING TEAM		Main dimensions		42. Number of seating positions (including the driver) : 5	
hereby certifies that the vehicle		4. Wheel base : 2640 mm		42.1 Seat(s) designated for use only when the vehicle is stationary : -	
0.1. Make (Trade name of manufacture) : Hyundai		4.1. Axle spacing : 1-2 : 2640 mm 2-3 : - mm 3-4 : - mm		42.3 Number of wheelchair user accessible position : -	
0.2. Type : LMFC		5. Length : 4110 mm		Environmental performances	
variant : CSE11		6. Width : 1820 mm		46. Sound level	
version : A11ZZ1		7. Height : 1655 mm		Stationary : - dB(A) at engine speed : min-1	
0.2.1. Commercial name : TUCSON ix35		Masses		Drive-by : 70.90 dB(A)	
0.4. Vehicle Category : M1		13. Mass of the vehicle in running order : 1921 kg		47. Exhaust emission level : Euro 5 J	
0.5. Name and address of the manufacturer : Hyundai Motor Company,231,Yangjae-dong, Seocho-gu,Seoul,137-928,Korea		16. Technically permissible maximum laden mass : 2250 kg		48. Exhaust emissions : EC 715/2007/1030/2012	
0.6. Location and method of attachment of the statutory plates : On the left-hand B-post		16.1 Technically permissible maximum mass on each axle : 1. 1220 kg 2. 1090 kg		1.2. test procedure: Type I CO2 : mg/km,	
Location of the vehicle identification number : Under the right front seat		16.2 Technically permissible maximum mass of the combination : - kg		NOx : mg/km,	
0.9. Name and address of the manufacturer's representative (if any) : Hyundai Motor Europe Technical Center GmbH		16.3. Centre-axle trailer : - kg		THC+NOx : mg/km,	
Hyundai-Platz, 65428 Russelsheim, Germany		16.4. Unbraked trailer : - kg		Particulates : mg/km,	
0.10. Vehicle identification number : 90M4JUB19FDU000074		18. Technically permissible maximum static vertical mass at the coupling point : - kg		Particulates (number) : -	
confirms in all respects to the type described in approval 09*9207*07*001*00		Power plant		48.1. Smoke corrected absorption coefficient : -(m-1)	
issued on 22.10.2012 and can be permanently registered in Member States having right hand traffic and using metric units for the speedometer.		20. Manufacturer of the engine : Mobis		49. CO2 emissions/fuel consumption/electric energy consumption : 1. all power train except pure electric vehicles	
Place of Issue HMC Issue Date 09.04.2013		21. Engine code as marked on the engine : MG10		CO2 emissions Fuel consumption	
Signature		22. Working principle : -		Urban conditions - g/km 0 l/100km	
		24. Number and arrangement of cylinders : -		Extra-urban conditions - g/km - l/100km	
		25. Capacity : - cm3		Combined - g/km 0 l/100km	
		26. Fuel : Hydrogen Gas		Weighted, combined - g/km - l/100km	
		27. Mono fuel/Bi fuel/Flex fuel : Mono fuel		Miscellaneous	
		28. Maximum speed : 160 km/h		51. For special purpose vehicles: designation in accordance with Annex II Section 5: -	
		Axles and suspension		52. Remarks : -	
		30. Axle(s) track : 1. 1585 mm 2. 1586 mm			
		35. Tyre/wheel combination : Axle1 : 225/50R17 99H 6.5Jx17JET48 Axle2 : 225/50R17 99H 6.5Jx17JET48			
		Brakes			
		36. Trailer brake connections : -			

EEC Certificate of Conformity