



# Informal Group on Gaseous Fuelled Vehicles (GFV)

Report 68th GRPE January 2014



# Meetings GFV Group

- 28th GFV meeting
  - **12 September 2013 Brussels**
- 29th GFV meeting
  - **3-4 December 2013 The Hague (The Netherlands)**
- 30th GFV meeting
  - **07 January 2014 Geneva**



# GFV items

## Heavy Duty Dual-Fuel (HDDF)

Amendments to rev.5 Regulation 49  
(EURO V) with the introduction of Dual Fuel.

- Approved in November 2013 WP29



# GFV items

## **HDDF retrofitted engines and vehicles**

- **66th GRPE June 2013 Geneva.**
  - Decision to develop a new UN Regulation for heavy-duty dual-fuel retrofit.
  - Scope of R115 should be changed to only retrofits of LDV.
- **28<sup>th</sup> 29<sup>th</sup> and 30<sup>th</sup> GFV**
  - Structure and basic principles of new Regulation discussed.
  - AEGPL proposal for a new regulation on Dual Fuel retrofit for Heavy Duty
  - OICA suggestions about a framework for a new regulation.



# GFV items

## HDDF retrofitted engines and vehicles

### Timing:

- January 68<sup>th</sup> GRPE 2014: discussions
- June 69<sup>th</sup> GRPE 2014: informal document (if available)
- January 70<sup>th</sup> GRPE 2015: formal document (if available)
- June WP.29 2015: adoption

### Organisation:

- GFV mean group will discuss the HDDF activity of fundamentals & principles & process
- Task Force retrofit HDDF activity technical implementation and drafting activity
- Chair Task Force retrofit HDDF: TNO (Henk Dekker)
- Secretariat HDDF TF → NGV global (Jeff Seisler)
- Meetings HDDF TF → to be decided by the TF (or GFV)



# GFV items

## Discussed/agreed issues

### ○ Scope

- First Euro stage IV / V  
Possibly later Euro stage VI, (under discussion)
- Only type B Dual-Fuel systems (diesel mode + dual-fuel mode)  
applicability for type 3B (less than 10 % Gas Energy Ratio); is under discussion

### ○ Families

- Parent engine: emission test compliant with EL
- Robust description of family to be developed

### ○ Approval

- Retrofit systems (LPG/CNG/LNG systems for a vehicle and engine type)
- Discussion ongoing concerning the need for a type approval of a retrofit DF engine  
(*dual fuel engines approvals exist in R49*)

(Open Issue List)



# GFV items

## Retrofit principles discussion

- A. Retrofit modification → **without** substantially modifying its emission strategies
- B. Retrofit modification → **with** substantially modifying its emission strategies
  - Discussion if we need other words/definitions A= retrofit and B= conversion.
  - The GFV agreed to keep the historical wording 'retrofit' system to avoid any confusion
  - Sub-classification of retrofit systems of 'substantially' modify emission and operating strategies like intrusive and non-intrusive systems should be considered.
  - Discussion once an engine is "retrofitted" about the responsibility or liability of the OEM. OEM vs Retrofit debate is not new and should be avoided.
  - Our task is to set well written regulations to ensure that only the best retrofit HDDF systems can come into the market. (there are good and bad retrofits)
  - It would be very good if the OEMs would work cooperatively with retrofit fitters to ensure quality control of vehicles that are fitted with retrofit DF systems.



# GFV items

## Retrofit further activity

- The GFV will discuss further the initial principles and find solutions
- The open issue list will be used.
- The Task Force should start as soon as possible.
- On the 31th GFV meeting (on January 29th) we can develop milestones and the operating procedures for the HDDF
- This 31<sup>th</sup> GFV meeting will be used as Kick-Off meeting for the TF





# GFV items

## **Update on other UN regulatory activities related to safety (Jeff Seisler)**

- New amendments on LNG being considered for May 2014 GRSG
- Update on UN WP15 (Carriage of Dangerous Goods) and ADR regulatory issues regarding CNG and LNG safety on ADR-regulated trucks. (Updated from document GFV 29-08, with progress from December 2013 teleconference)



# Next steps GFV

## o Next meetings

- 31<sup>th</sup> GFV meeting 29 January 2014 Brussels
- Further GFV meetings to be scheduled.
- GFV request GRPE for a ½ day meeting during the 69th GRPE
  
- HDDF TF kick off meeting on the 29 January 2014, further meetings to be scheduled by the Task Force

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