Informal document. No. GRSG-88-28
(88th GRSG session, 18-22 April 2005, agenda item 5.3.)

Information on OBD System

**WWH-OBD**

Diesel Heavy Duty emission related OBD
A module within a more generic GTR

**Original scope and project management**

- **WP29 decided in November 2001 a GTR will be made, dealing with "On Board emission Diagnostic systems for Heavy duty vehicles and engines".**
  It will concern Diesel fuelled compression ignition engines

- **GRPE was given the task to draft this GTR**

- **A GRPE informal group, named WWH-OBD, has been created for that purpose**
  - Chairman: Mr. NARUSAWA, NTSEL (Japan)
  - Secretary: Mr. RENAUDIN, OICA/ISO
The OBD concept
Diagnosing, Recording, Communicating

"On Board Diagnostic system (OBD)" means a system on-board a vehicle or engine which has the capability of

- detecting malfunctions,
- indicating their occurrence by means of a malfunction indicator,
- identifying the likely area of these malfunctions by means of diagnostic elements
- storing that information in computer memory
- communicating that information off-board.
Further request from AC3

**AC3 decided in November 2003 the GTR will be structured in such a manner as to enable its future extension to other functions of the vehicle.**

Notes:
1- the scope of the task given to GRPE / GRPE WWH -OBD has not been modified (emission related / Heavy Duty Diesel vehicles)
2- GRPE has been mandated to propose the requested structure

GTR structure – decisions from GRPE and AC3

**Proposal (decision from GRPE; no objection from AC3)**

- Agreed structure: the GTR will consist of
  - a generic core set of requirements, and
  - specific modules.

- Agreed conditions of success (timing issue)
  - Generic provisions will be limited to “low hanging fruits” (e.g. definitions) in this first version of the gtr
  - Generic part will be completed by technical provisions (generic communication system, generic alert system, etc..) in a later stage when the OBD modules for other functions will be decided by AC3

**Development of the GTR structure (decisions from GRPE)**

- WWH-OBD will draft both the core part and the emission related module.
- GRRF, GRSG, and GRSP will review the content of the generic core part.
GTR structure - concept

OBD - GTR

Generic OBD Provisions
- Considerations
- Definitions
- Requirements

Emission related OBD provisions

Function X OBD provisions

Function Y OBD provisions

WHDC

WWH-oce

ISO standards

GTR structure - editorial

OBD - GTR

Generic OBD Provisions

Emission related OBD provisions

"Module"

Annex 1
Annex 2
Annex 1
Annex 2
Annex 1
Content of the generic part – major elements

- **Generic definitions**
  - OBD
  - Types of malfunctions (functional, electrical, rationality, etc...)

- **Generic requirements**
  
  Note: these requirements are considered as generic but are related to specific ones. It may be necessary to amend or to complete them as and when new OBD modules are introduced.
  - Alert system (Indication of a Malfunction, etc...)
  - Failure classification (when applicable)
  - Diagnosis information (DTC, freeze-frames, etc...)
  - Durability of the OBD system
  - Documentation requirements

GTR – drafting process

- Information to GRRF, GRSG and GRSP in spring 2005
- Joint informal meeting to finalise the generic part scheduled on Monday morning, 30 May 2005
  - Delegates of GRRF, GRSG, GRSP are invited
- Complete draft GTR submitted to GRPE on Thursday, 02 June 2005 as informal document
- Comments of GRPE, GRRF, GRSG, and GRSP on the gtr to be provided by [31]* August 2005
- GTR submitted to GRPE as formal document in January 2006

*note: date to be confirmed on 30 May 2005