

Informal document No. GRPE-47-16
(47th GRPE, 12-16 January 2004,
agenda item 7.)

**DRAFT PROPOSAL FOR AMENDMENTS
TO REGULATION No. 85**

(MEASUREMENT OF THE NET POWER)

Prescriptions concerning type-approval of hybrid vehicles

Transmitted by the expert from France.

The text hereafter was prepared by the GRPE Informal group on Hybrids.

In paragraph 2. Definitions: Insert new paragraph 2.5., to read:

2.5. Hybrid vehicles (HV)

2.5.1 “Hybrid vehicle (HV)” means a vehicle with at least two different energy converters and two different energy storage systems (on vehicle) for the purpose of vehicle propulsion.

2.5.2 “Hybrid electric vehicle (HEV)” means a vehicle that, for the purpose of mechanical propulsion, draws energy from both of the following on-vehicle sources of stored energy/power:

- a consumable fuel
- an electrical energy/power storage device (e.g. : battery, capacitor, flywheel/generator...)

2.5.3 For a Hybrid Electric Vehicle the “power train” comprises a combination of two different drive train types:

- an internal combustion engine, and
- one (or several) electric drive train(s).

In paragraph 3 : APPLICATION FOR APPROVAL:

Paragraph 3.2, amend to read:

- 3.2 It shall be accompanied by the description of the drive train comprising all the relevant particulars in triplicate referred to:
- in Annex 1 for vehicles powered by an internal combustion engine only,
 - or Annex 2 for pure electric vehicles
 - or in Annexes 1 and 2 for hybrid electric vehicles.

Paragraph 3.3, amend to read:

- 3.3 For hybrid electric vehicles (HEV), the tests shall be carried out separately on the internal combustion engine (according to Annex 5) and on the electric drive train(s) (according to Annex 6).

Renumber paragraph 3.3 to be 3.4 and amend to read:

- 3.4 A drive train (or set of drive trains), representative of the (set of) drive train type(s) to be approved, shall with the equipment prescribed in Annexes 5 and 6 to this regulation be submitted to the technical service conducting the approval tests.

Annex 3, COMMUNICATION

Paragraph 1, amend to read:

1. Trade name or mark of drive train or set of drive trains:.....

Paragraph 2, amend to read:

2. Internal combustion engine:
- 2.1 Make:
- 2.2 Type:
- 2.3 Manufacturer's name and address:

Paragraph 3, amend to read:

3. Electric drive train(s):
- 3.1 Make:
- 3.2 Type:
- 3.3 Manufacturer's name and address:

Paragraph 5, amend to read:

5. Drive train or set of drive trains submitted for approval on:.....

Paragraph 12, amend to read:

12. Electric drive train(s):.....