

**Proposal for draft amendments to GLOBAL TECHNICAL REGULATION (gtr No. 4)
on world-wide harmonized heavy-duty certification (WHDC)**

**UNIFORM PROVISIONS CONCERNING THE TEST PROCEDURE FOR
COMPRESSION-IGNITION (C.I.) AND POSITIVE-IGNITION (P.I.) ENGINES
FUELLED WITH NATURAL GAS (NG) OR LIQUEFIED PETROLEUM GAS (LPG)
WITH REGARD TO THE EMISSION OF POLLUTANTS**

Ref. Documents: ECE/TRANS/WP.29/GRPE/2006/17 dt. 27 March 2006

A. PROPOSAL

The current paragraph 3.1.12.:

"3.1.12. "high speed (n_{hi})" means the highest engine speed where 70 per cent of the declared maximum power occurs."

amend to read:

"3.1.12. "high speed (n_{hi})" means the highest engine speed where 70 per cent of the declared maximum power occurs. **In case of gas engines where determination of n_{hi} is not possible due a sudden drop of power, n_{hi} will be replaced with rated speed.**"

B. JUSTIFICATION

It may not be possible to determine n_{hi} for "gas engines" because, after the max power point, there is a sudden power drop to zero due to immediate fuel cut-off and ignition cut-off. Currently in India we are using rated speed as n_{hi} for gas engines. Hence the above text has been incorporated so that in case of gas or other engines where determination of n_{hi} is not possible, rated speed could be used in place of n_{hi}
