The European Association of Internal Combustion Engine Manufacturers



# **EUROMOT POSITION**

15 April 2015



# Potential amendment for COM(2014) 581 for global alignment with the certification requirements for spark ignited engines to be defined as "wintertime engine".

EUROMOT is requesting to improve the categorization of certain SI engines in scope of COM (2014) 581 by adding the definition of "wintertime engine" and by including these engines in the handheld category.

# 1. What is a wintertime engine?

The definition of a wintertime engines is "a non-road spark ignited engine used exclusively to power equipment that is used in wintertime, such as snow throwers (snow blowers) and ice augers".

# 2. Operation of wintertime engines

To ensure starting and operating performance wintertime engines must run a richer calibration. This richer calibration does raise the measured emission values of HC and NOx. These engines must also run with an open crankcase to ensure performance. Closing the crankcase in extreme cold conditions causes the engine to stop running. If wintertime engines were redesigned to operate in the same way as other engines, the engine performance would suffer. Engines in these applications would be harder to start and would potentially stall more often as loading requirements change in use. This drop in performance, due to leaning the calibration of the carburetor, may lead operators of equipment to tamper with the engine to seek the performance they were accustomed to prior to the regulatory change. This tampering could then lead to equipment being used in an unsafe manner, potentially causing harm to operators and increasing emissions beyond the proposed limits.

President: Georg Diderich **ENGINE IN SOCIETY** 

A European Interest Representative (EU Transparency Register Id. No. 6284937371-73)

General Manager: Dr Peter Scherm A Non Governmental Organisation in observer status with the UN Economic Commission for Europe (UNECE) and the UN International Maritime Organisation (IMO)

#### 3. US requirements

US EPA has exempted HC and NOx during wintertime use because there is significant improvement of air quality in winter months. Tropospheric (ground level) ozone is formed primarily from photochemical reactions between two classes of air pollutants, volatile compounds (VOC) and nitrogen oxides (NOx). These reactions typically need heat and sunlight to form and most frequently are present during summer months. During the winter months in the absence of heat these reactions occur at a much lower level and do not pose as large a threat to human health.

The EPA regulation (40CFR1054) has established that wintertime engines are required to only meet the published CO standard for the category of engine and be exempt from the requirements of HC+NOx. This allows manufacturers to properly calibrate the engines to perform in subzero conditions whilst delivering safe performance to operators such as emergency forces. EUROMOT is <u>not</u> requesting exemption from HC+NOx emission limits like EPA, but proposes that wintertime engines be included in the handheld category for COM (2014) 581.

(Amendment proposal in detail provided on the next page)

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# **Amendment Proposal** [1]

### CHAPTER I, SUBJECT MATTER, SCOPE AND DEFINITIONS, Article 3, definitions

Text proposed by the Commission

#### Amendment

(xx) "wintertime engine" means a non road spark ignited engine used exclusively to power equipment that is used only in wintertime, such as snowthrowers and ice augers.

# **Amendment Proposal** [2]

ANNEX I, Definition of engine sub-categories referred to in Article 4, Table I-4, Footnote

#### **Footnote under Table I-4:**

Text proposed by the Commission	Amendment
or engines <19 kW with SV<80 cm <sup>3</sup> in	For wintertime engines and engines <19 kW
achinery other than hand-held machinery	with SV<80 cm <sup>3</sup> in machinery other than

Fo machinery other than hand-held machinery, engines of the category NRSh shall be used

with SV<80 cm<sup>3</sup> in machinery other than hand-held machinery, engines of the category NRSh shall be used

# **Justification**

The proposed amendment will ensure that wintertime engines can be operated at extreme temperatures whilst maintaining low emission levels and safe operation. Wintertime engines are frequently used by emergency forces and are designed to operate under harsh weather conditions (as low as -40°C). This amendment also reflects the spirit of requirements set by US EPA without however exempting them from HC and NOx requirements.

**EUROMOT** is the European Association of Internal Combustion Engine Manufacturers. It is committed to promoting the central role of the IC engine in modern society, reflects the importance of advanced technologies to sustain economic growth without endangering the global environment and communicates the assets of IC engine power to regulators worldwide. For more than 20 years we have been supporting our members - the leading manufacturers of internal combustion engines in Europe, USA and Japan - by providing expertise and up-to-date information and by campaigning on their behalf for internationally aligned legislation. The EUROMOT member companies employ all over the world about 200,000 highly skilled and motivated men and women. The European market turnover for the business represented exceeds 25 bn euros.

Our EU Transparency Register identification number is 6284937371-73.

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