Regulation (EU) 2016/1628 of the European Parliament and of the Council of 14 September 2016 on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery, amending Regulations (EU) No 1024/2012 and (EU) No 167/2013, and amending and repealing Directive 97/68/EC (Text with EEA relevance)

REGULATION (EU) 2016/1628 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 14 September 2016

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(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee[(1)],

Acting in accordance with the ordinary legislative procedure[(2)],

Whereas:

(1) The internal market comprises an area without internal frontiers in which the free movement of goods, persons, services and capital has to be ensured. To that end, measures for the reduction of air pollution by engines to be installed in non-road mobile machinery were established by Directive 97/68/EC of the European Parliament and of the Council[(3)]. It is appropriate to pursue efforts in the development and operation of the internal market of the Union.

(2) The internal market should be based on transparent, simple and consistent rules which provide legal certainty and clarity from which businesses and consumers alike can benefit.

(3) A new regulatory approach has been introduced in respect of Union engine type-approval legislation, with the aim of simplifying and accelerating the adoption of such legislation. Pursuant to that approach, the legislator sets out the fundamental rules and principles and empowers the Commission to adopt delegated and implementing acts concerning further technical details. Therefore, with regard to substantive requirements, this Regulation should lay down only essential provisions on the emission of gaseous

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and particulate pollutants and type-approval for internal combustion engines for non-road mobile machinery, and should empower the Commission to lay down the technical specifications in delegated and implementing acts.

(4) Regulation (EU) No 167/2013 of the European Parliament and of the Council[(4)] established a regulatory framework for the approval and market surveillance of agricultural and forestry vehicles. Given the similarity of the fields and the positive experience in applying Regulation (EU) No 167/2013, many of the rights and obligations established by that Regulation should be taken into consideration in respect of non-road mobile machinery. However, it is essential that a distinct set of rules be adopted to fully take into account the specific requirements of engines for non-road mobile machinery.

(5) Directive 2006/42/EC of the European Parliament and of the Council[(5)] lays down the essential health and safety requirements in relation to design and manufacture in order to improve the safety of machinery placed on the market. However, that Directive does not lay down gaseous and particulate pollutant emission requirements for engines for non-road mobile machinery. Certain specific obligations for non-road mobile machinery manufacturers should therefore be laid down in order to ensure that the installation of engines in such machinery is carried out in a manner that does not adversely affect engine performance with regard to gaseous and particulate pollutant emissions. Certain obligations relating to aspects of the emission limits for gaseous and particulate pollutants from engines for non-road mobile machinery are also necessary, in order to ensure the effectiveness of the emission limits for engines laid down in this Regulation.

(6) This Regulation should contain substantive requirements relating to emission limits and EU type-approval procedures for engines for non-road mobile machinery. The main elements of the relevant requirements of this Regulation are based on the results of the impact assessment of 20 November 2013 carried out by the Commission and in which the different options were analysed by listing potential advantages and disadvantages in terms of economic, environmental, safety and societal aspects and in terms of health effects. Both qualitative and quantitative aspects were included in that analysis.

(7) With a view to ensuring the functioning of the internal market, this Regulation should lay down harmonised rules for the EU type-approval of engines for non-road mobile machinery. For that purpose, new emission limits should be established and applied to engines for non-road mobile machinery as well as for agricultural and forestry machinery, to reflect technological progress and to ensure convergence with Union policies in the on-road sector. Those new emission limits should be established with a view to achieving Union air quality targets and reducing the emissions from non-road mobile machinery and agricultural and forestry vehicles, thus decreasing the share of non-road mobile machinery emissions in relation to road vehicle emissions. Accordingly, the scope of Union legislation in this field should be broadened, with a view to improving market harmonisation at Union and international level and minimising the risk of market distortions and adverse health effects.

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(8) In addition to broadening the scope of Union legislation in the field of market harmonisation, while minimising the risk of market distortions, this Regulation aims to simplify the current legal framework, including by providing for measures for the simplification of administrative procedures, and to improve the general conditions for enforcement of such legislation, in particular by strengthening the rules on market surveillance.

(9) The Commission White Paper of 28 March 2011, entitled 'Roadmap to a Single European Transport Area — Towards a competitive and resource efficient transport system', highlights the particular role to be played by railways and inland waterways in achieving climate targets. Given that the progress of those modes of transport compares unfavourably with that of other sectors in relation to improving air quality, the Commission and Member States' authorities, within their respective remits, should provide different ways of supporting innovation in emission technology so that the continuing increase in the volume of freight shifted to rail and inland waterways goes hand-in-hand with an improvement in air quality in Europe.

(10) The requirements in respect of engines for non-road mobile machinery should follow the principles laid down in the Commission Communication of 5 June 2002 entitled 'Action plan "Simplifying and improving the regulatory environment"'.

(11) The Seventh General Union Environment Action Programme as adopted by Decision No 1386/2013/EU of the European Parliament and of the Council[(6)] recalls that the Union has agreed to achieve levels of air quality that do not give rise to significant negative impacts on, and risks to, human health and the environment. Union legislation has established appropriate emission limits for ambient air quality for the protection of human health and sensitive individuals in particular, as well as for national emission ceilings[(7)]. Following its Communication of 4 May 2001, which established the Clean Air for Europe (CAFE) Programme, on 21 September 2005 the Commission adopted another Communication entitled 'Thematic Strategy on air pollution'. One of the conclusions of that thematic strategy is that further reductions in emissions from the transport sector (air, maritime and land transport), from households and from the energy, agricultural and industrial sectors are needed to achieve Union air quality objectives. In that context, the task of reducing emissions from engines for non-road mobile machinery should be approached as part of an overall strategy. The new emissions limits, referred to as 'Stage V', are one of the measures designed to reduce the current in-use emissions of air pollutants, such as particulate pollutants, as well as ozone precursors such as nitrogen oxides (NO_x) and hydrocarbons.

(12) On 12 June 2012, the World Health Organisation, through its International Agency for Research on Cancer, reclassified diesel engine exhaust emissions as 'carcinogenic to humans' (Group 1), based on sufficient evidence that exposure is associated with an increased risk of lung cancer.

(13) In order to bring about an improvement in the Union's air quality and reach its objectives on air protection in a sustainable manner between now and 2020, and beyond, continuous efforts are required to reduce emissions from various types of engines. For that reason, manufacturers should be provided in advance with clear and

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comprehensive information on future emission limit values, and should be afforded an appropriate period of time in which to comply with them and pursue the requisite technical developments.

(14) In setting emission limits, it is important to take into account the implications for the competitiveness of markets and manufacturers, the direct and indirect costs imposed on business and the benefits that accrue in terms of stimulating innovation, improving air quality, reducing health costs and increasing life expectancy.

(15) The reduction of emissions from engines in a sustainable manner requires the constant intensification of direct cooperation between manufacturers and related businesses, on the one hand, and well-established scientific research institutions, on the other. Such cooperation plays a significant role in the development of new products and technologies that positively contribute to improving air quality.

(16) Emissions from engines for non-road mobile machinery constitute a significant proportion of the total man-made emissions of certain noxious atmospheric pollutants. Engines responsible for a considerable share of air pollution by NO_x and particulate matter should be subject to the new emission limits.

(17) In order to guarantee an optimum level of protection for persons working in the vicinity of machinery, and to keep the cumulative exposure of persons working in the vicinity of several different items of mobile machinery and equipment as low as possible, technology that is currently available should be used to minimise emissions.

(18) The Commission should keep under review emissions which are, as yet, unregulated and which arise as a consequence of the wider use of new fuel formulations, engine technologies and emission control systems. Where necessary, the Commission should submit a proposal to the European Parliament and to the Council with a view to regulating such emissions.

(19) It is necessary to encourage the introduction of alternative fuel engines which can have low NO_x and particulate pollutant emissions. Therefore, limit values for total hydrocarbons should be adapted in order to take into account non-methane hydrocarbons and methane emissions.

(20) This Regulation is without prejudice to the entitlement of Member States to lay down, in compliance with the Treaties, such requirements as they may deem necessary to ensure that the public and workers are protected whenever non-road mobile machinery referred to in this Regulation is in use, provided that such requirements do not affect the placing on the market of engines for such machinery.

(21) In order to ensure that emissions of ultrafine particulate pollutants (of size 0,1 μm and below) are regulated, the Commission should be empowered to adopt a number-based approach to emissions of particulate pollutants, in addition to the mass-based approach which is currently used. The number-based approach should draw on the results of the Particulate Measurement Programme of the United Nations Economic Commission for Europe (UNECE) and should be consistent with the existing ambitious objectives for the environment.

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(22) In order to achieve those environmental objectives, it is appropriate that the particle number limits laid down in this Regulation are likely to reflect the highest levels of performance currently achieved with particle filters by using the best available technology.

(23) Given the long lifetime of non-road mobile machinery, it is appropriate to consider the retrofitting of engines already in service. Such retrofitting should, in particular, target densely populated urban areas as a means of helping Member States to comply with Union air quality legislation. To ensure a comparable and ambitious level of retrofitting, Member States should take into account the principles of UNECE Regulation No. 132.

(24) Where appropriate and where technologies are interlinked, synergies should be sought between the reduction of gaseous and particulate pollutant emissions from engines for non-road mobile machinery, and emission limits as applied to heavy-duty vehicles. Such action could help to improve economies of scale and improve air quality.

(25) The Commission should adopt worldwide harmonised test cycles in the test procedures that form the basis of EU type-approval emissions regulations. The application of portable emissions measurement systems for monitoring actual in-use emissions should also be considered.

(26) In order to address actual in-use emissions and to prepare the in-service conformity process, a testing methodology for monitoring compliance with emission performance requirements based on the use of portable emission measurement systems should be adopted within an appropriate timeframe.

(27) The proper functioning of the exhaust after-treatment system, specifically in the case of NO_x, is essential for complying with the established limits for pollutant emissions. In this context, measures aimed at ensuring the proper operation of exhaust after-treatment systems that rely on the use of any consumable or non-recoverable reagent should be introduced.

(28) Portable fire-fighting pumps are essential in certain emergency situations in which a channelled water supply is unavailable. The installation of exhaust after-treatment systems in engines for such machinery would, however, increase their weight and operating temperatures to the extent that it would become dangerous for the operator and they would be impossible to carry by hand. Portable fire-fighting pumps should, therefore, be excluded from the scope of this Regulation.

(29) Modifications to an engine such as the inactivation of its exhaust after-treatment system, or the increase in its power, could have serious consequences for the engine's emissions performance and durability. Legal persons carrying out such modifications should therefore be responsible for ensuring that the applicable emission limits are respected.

(30) Engines which are covered by, and comply with, the new rules on emission limits and EU type-approval procedures laid down by this Regulation should be permitted to be placed on the market in the Member States. Such engines should not be subject to any other national emission requirements in respect of their being placed on the market. This should be without prejudice to the right of Member States to encourage or restrict