









INDUSTRY RECOMMENDATION ON HARMONISATION OF THE REQUIREMENTS FOR MOBILE MACHINERY OCCASIONALLY TRAVELLING ON PUBLIC ROADS

30 May 2017

The Issue

Due to a void in the internal market each Member State in Europe is entitled to define their own rules to ensure an appropriate level of safety for mobile machines circulating on public roads. Member States have each specified and implemented these requirements at National level to address general safety concerns. The variety of those National requirements represents a disproportionate and unjustified economic and administrative burden for the mobile machinery industry.

Therefore, the European associations **CECE** (construction equipment), **CEMA** (agricultural machinery), **EGMF** (garden equipment), **EUnited Municipal Equipment** and **FEM** (material handling equipment) warmly welcome the European Commission's initiative to address the problem concerning the lack of harmonisation of on road circulation requirements for mobile machinery. This future EU legislation should harmonise the road circulation requirements for mobile machinery, mitigating one of the last remaining gaps in the internal market and to review any legislative inconsistencies applying to industrial products to which the European Commission has committed itself.

The industry associations would like to take this opportunity to outline their preferences with respect to important elements of the new legislation.

Scope: The legislation should be dedicated to mobile machinery

We believe that the scope of the new legislation should cover mobile machinery that is outside the scope of vehicle legislation; i.e. Directive 2007/46/EC, Regulation (EU) 167/2013 and Regulation (EU) 168/2013. Mobile machinery may be either self-propelled or towed and is designed to carry out work specific to certain sectors such as agriculture, forestry, construction, industrial, grounds keeping, maintenance, gardening, municipal or road operation services, either by itself or with additional implements. Mobile machinery is not primarily intended to transport goods or passengers. Examples of mobile machinery are wheeled excavators, road sweepers, ride-on lawnmowers, combine harvesters, and self-propelled sprayers. In annex II to this document a number of pictures of examples of mobile machines can be found,

To ensure that all machinery which is used occasionally circulating on public roads is covered by harmonised legislation, CECE, CEMA, EGMF, EUnited Municipal Equipment and FEM wish to clarify that the following definition of mobile machinery should always apply:

'mobile machinery' means any self-propelled or towed machinery which is designed and constructed specifically to perform work, with or without an additional implement, which, because of its construction characteristics, is not primarily intended for carrying passengers and/or transporting goods on the road, unless it is required to store temporarily any materials produced or necessary during its operation and/or to occasionally carry passengers in the context of the work. Machinery mounted on a motor vehicle chassis shall not be considered as mobile machinery;

Goal: One single approval allowing authorisation for road circulation of a mobile machine in all Member States without further technical requirements

The industry requests a legislative act, enabling a mobile machine manufacturer to receive an EU wide accepted 3rd party approval, permitting public road circulation of the mobile machines in any EU Member State without the need for additional tests and/or documentation. It is important to note that all technical requirements in this legislation should only be related to public road circulation.

The manufacturer may choose whether to apply for approval under this new regulation or whether to comply with the relevant national requirements.

It remains the duty of the Member States to set the traffic rules. Market surveillance checks are intended to ensure that those machines, utilising an approval, are compliant.

Approval procedure: Different ways of verification for different aspects

The legislation should take into consideration the various options available for conformity assessment including a possibility to utlise a combination of existing relevant legislation, the use of harmonized standards or specific adopted EU or UNECE legislative acts.

In order to minimize burden where possible while involving 3rd parties where necessary, four distinct columns with safety aspects relevant for mobile machinery have been defined (see annex I), each one with a discreet procedure to verify the compliance of mobile machinery with the technical requirements. These columns are:

- 1. **Requirements under full 3rd party testing and reporting:** For requirements which have a big impact on the machine's level of on-road safety, such as steering and braking, it is considered appropriate to have the necessary compliance tests carried out by a 3rd party. A test report issued by the 3rd party should demonstrate conformity of the concerning aspect with the technical requirements.
- 2. **UNECE and EU approved component and/or system information**: Components/systems which are UNECE or EU type approved, should not require any additional conformity assessment at that level. Certification of these components/systems (e.g. lights) should provide sufficient evidence of conformity.

- 3. **Verification of documents**: Conformity assessment of many road circulation requirements are already or can relatively easy be implemented in the manufacturer's internal assessment procedures (e.g. lighting installation). An administrative check of the presence of documentation by a 3rd party is considered sufficient to ensure that the assessments have been done correctly. The manufacturer always has the option to involve a 3rd party for the assessment.
- 4. Other applicable legislation: It includes the elements that are already regulated by other legislation and which does not impact the road circulation safety aspects of machines including legislation such as the machinery directive and engine exhaust emissions regulation for non-road mobile machinery. These elements do not need to be considered in the legislative proposal on road circulation. Some items may be relevant in terms of general health and safety as well as road circulation and could therefore be mentioned in two columns, e.g. fuel tanks. When already covered by another legislative act, these aspects shouldn't be in the scope of the legislative act concerning road circulation.

A road circulation technical documentation containing all relevant aspects as defined in the annex is to be prepared by the manufacturer and submitted to a 3rd party for review of:

- 1. test reports
- 2. technical documentation provided
- 3. the list of approval numbers of EU and UNECE approved components or systems

Upon confirmation of correctness and completeness of the road circulation technical documentation the 3rd party issues a certificate to the mobile machine manufacturer. This allows authorisation for road circulation of any mobile machine covered by the approval in any EU Member State without additional technical requirements, tests or documentation.

Annex I – Approval procedure diagram

Other legislation applicable to mobile machinery (non exhaustive list)

Engine emissions **Machinery Directive**

- **ROPS / FOPS** 1.
- 2. Driver exposure to noise levels
- 3. Driving seats (ergonomics)
- Operator space and access to operating position
- 5. Restraint systems
- 6. Anchorages;, position and assembly
- 7. Burning rate
- 8. Operator manual
- 9. Guards and protecting devices
- 10. Hazardous substances (cab filtration)
- 11. Controls
- 12. Hot surfaces and exhaust
- 13. Symbols and warnings
- 14. Batteries and electrical systems
- 15. **Emergency** exit
- 16. Interior fittings
- 17. risks due to surfaces, edges or angles (exterior projections)
- 18. structural integrity
- 19. driver information system
- 20. PTO
- 21. Retrieval device
- 22. Jacking and tie down points
- 23. Road mode
- 24. Fuel tank (non-road circulation aspects)
- 25. Heating and defrosting
- 26. Unauthorized use prevention **EMC**

Outdoor noise

PFD

Requirements for verification of documents by 3rd party (self-testing: real or virtual testing) - only road circulation aspects

- Noise (external sound level)
- 2. Maximum design speed
- 3. Speedometer
- Δ Field of vision
 - 1. Front, side, rear and wipers
 - 2. Rear view mirrors/camera installation
- 5. Lighting and signalling installation
- Audible warning device installation 6.
- 7. Registration plate space
- 8. Statutory plate
- Mass and dimensions (Road preservation for tracked vehicle and ground pressure)
- 10. Operator controls related to road circulation
- 11. Fuel Tank (road circulation aspects))
- 12. Guard and fenders (spray suppression)
- 13. Tracks & tyres (without UNECE approval) (Road preservation for tracked machine)
- 14. Mechanical couplings installation
- 15. Driver seat installation
- 16. Swinging upper structure

UNECE and EU approved components - Only road circulation aspects

Glass

Mobile machinery road circulation approval process

(Tyres)

Mirrors/camera Lamps/panels Mechanical coupling

Audible warning device

devices and components

Systems/ requirements only when used for road circulation - for test and check by 3rd party

> Steering and dynamic stability Braking (including braked and unbraked towable mass if applicable)

Compile information on the **UNECE** and EU approved components (only approval number)

Collect information to be provided to the 3rd Party/Parties that will conduct the tests

Tests and/or verification conducted and test report provided by 3rd party

Provide technical documentation with road circulation aspects (e.g. installation drawings, test results) to the 3rd Party

Provide approval numbers of the UNECE and EU approved components for the road circulation documentation to 3rd Party

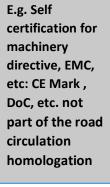
Provide test reports to the 3rd party

Road Circulation Technical Documentation

Check correctness and completeness of the road circulation technical documentation by third party

Machine certification

Approval for road circulation of the machine in the EU without additional requirements, testing, documentation



Annex II – Examples of mobile machinery

1.1. Construction equipment going on the road (CECE)



Wheeled loader¹



Backhoe loader²



Rollers²



Rough terrain truck mixer



Side dumper



Planer²



Paver²



Bitumen spreading machine



Tipping Barrow



Articulated dumptruck²



Grader²

- ¹ picture of a NRMM in road travelling conditions ² picture of a NRMM in working conditions

1.2. Agricultural machinery going on the road (CEMA)







Combine Harvesters²

Combine Harvesters¹







Forage Harvesters¹







Forage Harvesters²







Self propelled sprayers²

Self propelled sprayers¹





Self propelled potato harvesters ²



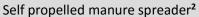




Self propelled sugar beet harvesters²

Self propelled sugar beet harvesters¹











Self propelled fertiliser spreader²



Self propelled mixer wagons¹

 $^{^{\}rm 1}$ picture of a NRMM in road travelling conditions $^{\rm 2}$ picture of a NRMM in working conditions

1.3. Garden machinery occasionally going on the road (EGMF)





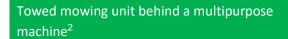






Ride-on lawn mower¹







Towed mowing unit behind a multipurpose machine¹

- $^{\rm 1}$ picture of a NRMM in road travelling conditions
- ² picture of a NRMM in working conditions

1.4 Municipal equipment going on the road (EUnited Municipal equipment)







 $^{^{\}rm 1}\,{\rm picture}$ of a NRMM in road travelling conditions

² picture of a NRMM in working conditions

1.5 Handling equipment going on the road (FEM)







¹ picture of a NRMM in road travelling conditions

² picture of a NRMM in working conditions

Associations involved:

CECE, the Committee of European Construction Equipment is the recognised organisation representing the European construction equipment and related industries. CECE is a European network consisting of a secretariat in Brussels and national association offices in 13 different European countries.

The industry behind CECE counts around 1200 companies that employ about 300,000 people directly and inderictly. Their annual revenues amounts to ca. 40 billion euros. www.cece.eu

CEMA is the European association representing the agricultural machinery industry. In the agricultural machinery sector, there are some 4,500 manufacturers, that generated a turnover of around €26 billion in 2014. 135,000 people work in this sector and a further 12,000 people work in distribution and maintenance. The companies are mainly small and medium-sized manufacturers. The sector covers around 450 different machine types. www.cema-agri.org

EGMF. The European Garden Machinery Industry Federation – EGMF – has been the voice of the entire garden machinery industry in Europe since 1977. With 30 European corporate members and 7 National Associations representing manufacturers of garden, landscaping, forestry and turf maintenance equipment, EGMF has the most powerful network in this sector in Europe. www.egmf.org

EUnited Municipal Equipment is the European Association of Municipal Equipment Manufacturers. The association represents the leading manufacturers of mobile machines used in municipalities and other public areas. www.eu-nited.net/municipalequipment

FEM. Created in 1953, the European Materials Handling Federation represents, defends and promotes European manufacturers of materials handling, lifting and storage equipment. FEM speaks for 17 members representing some 1,000 companies (mostly SMEs) employing 160,000 people directly and with an annual turnover of more than €50 billion. www.fem-eur.com