

FAQ

Frequently Asked Questions on exhaust emission requirements for tractors

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Introduction



The agricultural vehicle EU type-approval Regulation¹ (art. 19 (3)) sets out that the provisions on engine exhaust emission levels and all the associated procedures for agricultural tractors shall be derived from the Non-Road Mobile Machinery (NRMM) engines exhaust emission legislation. This NRMM Regulation² introduces Stage V engine emission requirements for non-road mobile machinery. The Stage V NRMM emission legislation changes the reference in the tractor type-approval legislation from the Directive 97/68/EC³ to the Stage V NRMM Regulation 2016/1628. However, these provisions are by no means sufficient to ensure the practical applicability of those requirements to the agricultural tractors. Adaptation to the specific legislative context is necessary to achieve the full applicability of Article 19(3) mentioned above. To this purpose, delegated regulation on environmental and propulsion performance requirements (REPPR) Regulation 2018/985⁴ was published on 18 July 2018 and entered into force on 21 July 2018. This regulation repealed the previous REPPR Regulation 2015/96⁵.

Several European industry associations including CEMA published a Frequently Asked Question (FAQ) document providing an interpretation of the main aspects of Regulation 2016/1628 relevant for manufacturers of non-road mobile machinery (NRMM). Considering that there are several elements and requirements that differ between non-road mobile machinery and tractors, this document will provide a further explanation on those differences. Therefore, for all those elements where this document does not include a further explanation, the answers in the FAQ for non-road mobile machinery are also valid for tractors.

Moreover, special provisions are applicable to narrow-wheeled and tracked and high-clearance tractors (vehicles of category T2, C2 and T4.1). This document will provide further explanation on these provisions in Chapter 2.

¹ Regulation (EU) 167/2013 on the approval and market surveillance of agricultural and forestry vehicles

² Regulation (EU) 2016/1628 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

³ Directive 97/68/EC of the European Parliament and of the Council of 16 December 1997 on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery

⁴ Commission Delegated Regulation (EU) 2018/985 supplementing Regulation (EU) No 167/2013 of the European Parliament and of the Council as regards environmental and propulsion unit performance requirements for agricultural and forestry vehicles and their engines and repealing Commission Delegated Regulation (EU) 2015/96

⁵ Commission Delegated Regulation (EU) 2015/96 supplementing Regulation (EU) No 167/2013 of the European Parliament and the Council as regards environmental and propulsion unit performance requirements of agricultural and forestry vehicles

Table of contents

Chapter 1: Stage V exhaust emission requirements for tractors

1.	What is the scope of this document?	04
2.	How are the exhaust emission requirements for tractors regulated?	04
3.	What are the relevant engine categories for tractors?	05
4.	What is an agricultural tractor?	05
5.	Is there a separate shipment provision for tractors and which is its timing?	05
6.	What is the Stage V timetable for tractors?	05
7.	Are there differences in the dates of the transition scheme for tractors and non-road mobile machinery?	06
8.	Are there further transitional provisions?	06
9.	What are the marking requirements for transition engines fitted into tractors?	07
10.	What are the emission related marking requirements for tractors?	07
11.	What is the earliest date when tractors with a Stage V engine may get EU type-approval?	07
12.	Up to which date it is possible to obtain a new EU type-approval for a tractor with a non-Stage V engine?	07

Chapter 2: Special provisions on exhaust emissions for narrow tractors

1.	Which tractors may make use of these special provisions?	08
2.	Which special provisions for narrow tractors and high-clearance tractors are granted?	08
3.	Which amendments to the legislation are made to make it possible to bridge the Stage IV gap?	09
4.	How to calculate the 150% flexibility for T2/T4.1/C2 tractors during Stage IV?	09
5.	How is the transition to Stage V managed?	09
6.	How does the new transition scheme to Stage V work?	10
7.	What is the exhaust emission timeline for narrow tractors and high-clearance tractors between 56 and 130 kW?	10
8.	What is the exhaust emission timeline for narrow tractors and high-clearance tractors between 130 and 560 kW?	12

Bibliography

.....	14
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Chapter 1

Stage V exhaust emission requirements for tractors

1. What is the scope of this document?

The scope of this document is to offer the CEMA interpretation regarding the exhaust emission requirements applying to agricultural and forestry tractors, to their engines and the requirements on the initial entry into service of agricultural and forestry tractors to the extent that exhaust emissions are concerned. It focusses on the elements not covered by the already published FAQ on Stage V NRMM engines Regulation 2016/1628.

Furthermore, the special provisions for narrow and high-clearance tractors are explained in Chapter 2.

References: Regulation 2016/1628 Article 2 (1) and Regulation 167/2013 Article 2 (1)

2. How are the exhaust emission requirements for tractors regulated?

Engines intended for installation on agricultural and forestry tractors are excluded from the scope of Regulation 2016/1628. However, Article 19 (3) of Regulation (EU) 167/2013 establishes a direct link to the NRMM engines exhaust legislation, originally defined in Directive 97/68/EC, now repealed and replaced by the Stage V NRMM Regulation 2016/1628.

This reference to the NRMM engines legislation is not sufficient to grant the type-approval to tractors with Stage V engines even though granting type approvals to the engines is already possible via Stage V NRMM Regulation. The European Commission is empowered to adopt a delegated act setting out all the detailed requirements following the NRMM engines legislation, but adapting them to the specific agricultural vehicles legislative context. As initially this delegated regulation⁶ was based on Directive 97/68/EC, a new delegated act was published based on the Stage V NRMM engines Regulation. This Regulation 2018/985 repealed and replaced Regulation 2015/96.

As for Regulation (EU) 167/2013, the Stage V NRMM engines Regulation relies on supplementing legislation⁷ that will be referred to throughout this document.

References: Regulation 2016/1628 Article 2 (2) (b), Regulation 167/2013 Articles 3 (8) & 19 (3) and Regulation 2018/985

⁶ Regulation (EU) 2015/96, Regulation on Environmental and Propulsion Performance Requirements (REPPR)

⁷ EU Commission Delegated Regulation (EU) 2017/654 on technical requirements; EU Commission Delegated Regulation (EU) 2017/655 on monitoring of emissions of in-service engines; EU Commission Implementing Regulation (EU) 2017/656 on administrative requirements

3. What are the relevant engine categories for tractors?

The engines used in agricultural and forestry tractors belong to categories NRE, ATS and NRS.

References: Regulation 2016/1628 Article 4 and Regulation 2018/985 Article 3

4. What is an agricultural tractor?

An agricultural or forestry tractor is defined in Regulation 167/2013 as:

Any motorised, wheeled or tracked agricultural or forestry vehicle having at least two axles and a maximum design speed of not less than 6 km/h, the main function of which lies in its tractive power and which has been especially designed to pull, push, carry and actuate certain interchangeable equipment designed to perform agricultural or forestry work, or to tow agricultural or forestry trailers or equipment; it may be adapted to carry a load in the context of agricultural or forestry work and/or may be equipped with one or more passenger seats.

References: Regulation 167/2013 Article 3 (8)

5. Is there a separate shipment provision for tractors and which is its timing?

Yes, in case a tractor manufacturer and an engine manufacturer agree to use this possibility, the procedures defined in the Regulation 2018/985 applied immediately after its entry into force on 21 July 2018. This procedure is the same as the one described in Regulation 2016/1628 FAQ. There is no transition time given as there was no separate shipment derogation in the previous REPPR Regulation 2015/96. However, without prejudice to the fact that the obligation for tractor engines applied only as of the application date on 21 July 2018, until that time, engines type-approved according to the Regulation 2016/1628 may have already been shipped separately from their after-treatment according to the requirements set out in Annex X of supplementing Regulation 2017/654.

*Reference: Regulation 2016/1628 Articles 15 (6), 34 (3), 65, Regulation 2017/654 Annex X, Regulation 2017/654 Article 13 and Regulation 2018/985 Article 12 (1)
Additional information: NRMM FAQ part 7 & 2.18*

6. What is the Stage V timetable for tractors?

Tractors and their engines must meet the requirements according to the same schedule defined in Annex III of the Stage V NRMM engines Regulation, however these dates correspond to different events compared to NRMM engines.

- For engines the dates refer to the act of placing on the market
- For non-road mobile machinery the dates refer the act of placing on the market
- For tractors the dates are to be read as vehicle initial entry into service

Initial entry into service is defined in Regulation 2018/985 as:

- a) the first registration, if the registration is compulsory, or,
- b) if the registration is compulsory only for road circulation or is not compulsory, the placing on the market;

EXAMPLE *In country A registration is only compulsory for road circulation. Thus, a tractor with a Stage IIIB engine of 50 kW that is bought by a farmer on 1 December 2018 and not registered, is still considered to have initially entered into service in country A. This not-registered tractor may be registered for the first time in country A any time after 1 January 2019 as it met the engine emission requirements when it initially entered into service.*



Notwithstanding the transition period, this means all tractors need to have Stage V engines installed when being placed on the market after:

- 31 December 2018 for engines below 56 kW and above 130 kW (<56 kW and ≥130 kW)
- 31 December 2019 for engines between 56 kW and 130 kW (56 kW ≤ P < 130 kW)

The tractor manufacturer, in all his considerations about timing, must calculate the period between the production of the tractor and the likely initial entry into service of the tractor. The end-of-series provision explained in question 8 are a further instrument in the transition.

The compulsory type-approval dates are the same for engines intended for installation in non-road mobile machinery and tractors, however for tractors the same date is also applicable to new whole vehicle EU type-approvals.

Reference: Regulation 2016/1628 Articles 3 (48), 18 (2), Annex III and Regulation 2018/985 Article 7 and Annex I point 1.3
Additional information: NRMM FAQ question 2.9, 2.10

7. Are there differences in the dates of the transition scheme for tractors and non-road mobile machinery?

The only differences are related to the differences in the meaning of the dates as explained in question 6 and marking. Where non-road mobile machinery needs to be placed on the market before the end of the transition scheme, tractors need to enter into service before the end of the transition scheme. The differences with respect to marking are explained in question 9 and 10 of this FAQ.

Reference: Regulation 2016/1628 Articles 3 (48), 58 (5) and Regulation 2018/985 Article 13 and Annex I point 1.3
Additional information: NRMM FAQ part 3

8. Are there further transitional provisions?

Yes, besides the 24-month transition scheme there is the end-of-series exemption specifically for tractors. The end-of-series exemption makes it possible for manufacturers, importers and dealers to clear their stock of tractors. This is particularly relevant in countries with compulsory registration or compulsory registration for road circulation. These tractors were produced and foreseen with a Certificate of Conformity on a date when that Certificate was still valid - i.e. when it was meeting all the relevant requirements for EU type-approval at the moment of production -, but expired before the entry into service of the tractor due to the mandatory application of new requirements.

This applies also to emission related requirements. However, it is at the moment unclear if this end-of-series provision can be used after the transition scheme or only after the placing on the market dates of Stage V. I.e. after either 1 January 2019 or 1 January 2021 for tractors with engines below 56kW or above 130 kW and after either 1 January 2020 or 1 January 2022 for tractors with engines between 56 and 130kW.

It is up to the individual Member State to decide whether to grant these end-of-series provisions. There is no absolute guarantee that the end-of-series request will be (fully) authorised. The number of tractors that may make use of the end-of-series provision is limited to either maximum 10% of the number of vehicles registered in the two preceding years or 20 vehicles per Member State, whichever is higher.

Reference: Regulation 167/2013 Articles 3 (16) and 39
Additional information: CEMA guidelines for transitional provisions & exemptions for agricultural and forestry tractors

9. What are the marking requirements for transition engines fitted into tractors?

All transition engines need to be marked with the month and year of production irrespective if they are placed on the market before the placing on the market date or during the transition period. At least if the tractor where the transition engine is fitted in, is placed on the market during the transition period.

The month and year of production is the date when the engine passes the final check after it has left the production line.

10. What are the emission related marking requirements for tractors?

Tractors fitted with transition engines are required to indicate on a statutory plate the month and year of production. This may be the existing statutory plate or a separate statutory plate with month and year of production and the Vehicle Identification Number (VIN) code.

The month and year of production is the date when the vehicle passes the final check after it has left the production line.

Reference: Regulation 167/2013 Article 34, Regulation 2015/208 Annex XX, Regulation 2015/504 Annex IV and Regulation 2018/985 Article 2 (15)
Additional information: NRMM FAQ 2.4 and 6.3

11. What is the earliest date when tractors with a Stage V engine may get EU type-approval?

Tractors may be type-approved with Stage V engines since the entry into force of Regulation 2018/985, which was 21 July 2018. Engines instead may also be type-approved according to Regulation 2016/1628, which is possible since the entry into force of the supplementing legislation to Regulation 2016/1628 on 3 May 2017.

Reference: Regulation 2016/1628 Article 65 and Regulation 2018/985 Article 16
Additional information: NRMM FAQ question 2.6

12. Up to which date it is possible to obtain a new EU type-approval for a tractor with a non-Stage V engine?

The dates after which it is no longer possible to obtain a new EU whole vehicle type-approval for a tractor without a Stage V engine was the application date of Regulation 2018/985 on 21 July 2018, or the relevant type-approval dates set out in Annex III to Regulation 2016/1628 for tractors with engines between 56 and 130 kW. This means the deadlines for obtaining new EU whole vehicle type-approvals for tractors with non-Stage V engines are:

- 21 July 2018 (application date of the new REPPR) for engines below 56 kW and above 130 kW (<56 kW and ≥130 kW)
- 31 December 2018 for engines between 56 kW and 130 kW (56 kW ≤ P < 130 kW)

New variants of tractors within the same EU whole vehicle type-approval are still allowed by extension until the end of the transition period.

Reference: Regulation 2016/1628 Articles 22 (3), 58 (5 & 6), Annex III and Regulation 2018/985 Annex I 1.3
Additional information: NRMM FAQ question 2.7, 2.19 and 2.20

13. Is there a provision for field testing engines intended to be installed in tractors?

Yes, engines for field tests may be temporarily placed on the market under Regulation 2016/1628 according to the requirements of Annex XI of delegated Regulation 2017/654.

References: Regulation 2018/985 Article 14 (2), Regulation 2016/1628 Article 31, 32 and 34 (4) and Regulation 2017/654 Annex XI
Additional information: FAQ question 10.1





Chapter 2

Special provisions for narrow tractors

1. Which tractors may make use of these special provisions?

Narrow-tracked wheeled tractors, narrow-tracked track-laying tractors and high-clearance tractors may make use of the special narrow tractor provision. These are tractors of categories T2, C2 and T4.1 as defined in Regulation 167/2013. These are defined as:

'Category T2' comprises wheeled tractors with a minimum track width of less than 1 150 mm, with an unladen mass, in running order, of more than 600 kg, with a ground clearance of not more than 600 mm; if the height of the centre of gravity of the tractor (measured in relation to the ground) divided by the average minimum track for each axle exceeds 0,90 m, the maximum design speed shall be restricted to 30 km/h;

'Category C' comprises track-laying tractors propelled by endless tracks or by a combination of wheels and endless tracks, with subcategories defined by analogy with category T;

I.e. category C2 are track-laying tractors with a minimum track width of less than 1150 mm and meeting the other requirements described in the definition of category T2.

'Category T4.1' (high-clearance tractors) comprises tractors designed for working with high-growing crops, such as vines. They feature a raised chassis or section of chassis, enabling them to advance in parallel with the crop with left and right wheels on either side of one or more rows of the crop. They are intended for carrying or operating tools which may be fitted at the front, between the axles, at the rear or on a platform. When the tractor is in working position the ground clearance perpendicular to the crop rows exceeds 1 000 mm. Where the height of the centre of gravity of the tractor, measured in relation to the ground, using the tyres normally fitted, divided by the average minimum track of all of the axles exceeds 0,90, the maximum design speed shall not exceed 30 km/h;

Reference: Regulation 167/2013 Articles 4 (3), (6) and (9)

2. Which special provisions for narrow tractors and high-clearance tractors are granted?

A special provision for narrow and high-clearance tractors was introduced allowing to bridge the Stage IV gap by increasing flexibility for these tractors and postponing the date until which tractors with Stage IIIB may be type-approved. These provisions are described in question 3 below.

A second provision provides for Stage IIIB engines, in the power range between 56 and 130 kW to be considered transition engines for Stage V. Thus, narrow and high-clearance tractors fitted with those engines may be placed on the market until 31 December 2021 on the condition that the vehicle was produced by 30 June 2021. For details see question 5 below.

Reference: Regulation 2016/1628 Articles 63, Regulation 167/2013 Articles 19 (3), Regulation 2015/96 Article 11 (4) and Annex V point 1.1.1

3. Which amendments to the legislation are made to make it possible to bridge the Stage IV gap?

Regulation 2016/1628 amended Regulation 167/2013 and mandated the European Commission to amend Regulation 2015/96 (previous REPPR delegated act) to:

- Extend the period of allowing new EU whole vehicle type-approval of narrow tractors between 56 and 130 kW with Stage IIIB engines from 30 September 2016 to 30 September 2017
- Increase the flexibility percentage for narrow tractors during Stage IV from 20% to 150%

Regulation 2017/686 released on 12 April 2017 amended Regulation 2015/96 based on the delegation above and made those provisions applicable. Although Regulation 2015/96 is repealed these provisions are still valid.

Reference: Regulation 2017/686 article 1

Additional information: CEMA guidelines for transitional provisions & exemptions for agricultural and forestry tractors

4. How to calculate the 150% flexibility for T2/T4.1/C2 tractors during Stage IV?

The 150% flexibility credits must be requested by the tractor manufacturer to one of the national authorities. The quantity of flexibility credits granted to each tractor manufacturer is calculated as 150% of the annual average sales of T2, T4.1 and C2 tractors in the relevant power band over the last 5 years by that manufacturer.

Upon authorization being granted, the vehicle manufacturer may:

- Order to their engine manufacturers the required engines within the maximum quantities indicated in the authorization;
- Produce these tractors and make them available on the market.

The deadline for entering into service of these tractors is the end of Stage IV for each power range, thus 31 December 2019 for 56 to 130 kW and 31 December 2018 for >130 kW.

A report must be submitted every twelve months to all national authorities of countries where tractors with flexibility engines were placed on the market.

Reference: Regulation 2015/96 Annex V point 1.1.1

5. How is the transition to Stage V managed?

Regulation 2016/1628 amends Regulation 167/2013 granting to the narrow and high-clearance tractors between 56 and 130 kW, that Stage IIIB engines be considered as transition engines as derogation from the transition engine definition in the Stage V NRMM Regulation.

This excludes narrow and high-clearance tractors having a power above 130 kW from this provision.

Reference: Regulation 2016/1628, Article 3 (32), 63 and Regulation 167/2013 Article 19 (3)



6. How does the new transition scheme to Stage V work?

The same transition procedures described in Chapter 1 of this FAQ apply also to narrow and high-clearance tractors with the power range limitation described in question 5 above. The same schedule applies and thus narrow and high-clearance tractors fitted with a Stage IIIB engine may enter into service until the end of 2021. This derogation does not affect the possibility to have Stage IV transition engines.

A detailed explanation of the transition scheme can be found in part 3 of the NRMM Frequently Asked Questions document.

*Reference: Regulation 2016/1628 Article 58 and Regulation 167/2013 Article 19 (3)
Additional information: NRMM FAQ part 3*

7. What is the exhaust emission timeline for narrow tractors and high-clearance tractors between 56 and 130 kW?

The timeline regarding the initial entry into service and production of narrow tractors and high-clearance tractors between 56 and 130 kW can be divided in three main parts:

- Before 1 October 2017
- Between 1 October 2017 and 31 December 2019
- At and after 1 January 2020

This timeline results in different situations regarding type-approval, production, and entry into service of narrow tractors (NTT) depending on the period. The graph below gives an overview of what is allowed during these specific periods.

Timeline for narrow tractors and high-clearance tractors (56 - 130 kW)

	2016	2017	2018	2019	2020	2021	2022	2023
Production of NTT	Stage IIIB		Stage IV		Stage V			
	Sell-off		Sell-off					
	Flexibility		Flexibility		Transition period			
Initial entry into service of NTT	Stage IIIB		Stage IV		Stage V			
	Sell-off		Sell-off					
	Flexibility		Flexibility		Transition period			

Reference: Regulation 2016/1628 Articles 63 and Annex III Regulation 167/2013 Articles 19 (3) and Regulation 2015/96 as amended by Regulation 2017/686 article 1 (1), (2) and Regulation 2018/985

Additional information: NRMM FAQ part 3 and CEMA guidelines for transitional provisions & exemptions for agricultural and forestry tractors

7.1 How is the vehicle type-approval for narrow and high-clearance tractors (56 to 130 kW) impacted?

For Stage IIIB narrow and high-clearance tractors in the 56 kW to 130 kW power band the latest possibility of obtaining new whole vehicle EU type-approval according to Regulation 167/2013 was 30 September 2017.

Up to 31 December 2018 it is possible to obtain the first new EU type-approval, according to Regulation 167/2013, for these tractors, with Stage IV engines between 56 kW and 130 kW.

After 31 December 2018:

- It is possible to extend existing EU type-approvals until 30 June 2021 with another engine belonging to the same engine family or other components not affecting engine emissions of the EU type-approval;
- Narrow and high-clearance tractors with Stage V engines may receive a new whole vehicle EU type-approval.

7.2 Which engines may be installed on narrow and high-clearance tractors between 56 and 130 kW before 1 October 2017?

Until 1 October 2017 Stage IIIB was applicable which means the narrow tractors with the following engines may have been produced and enter into service:

- Stage IIIA flexibility engines
- Stage IIIB engines
- Stage IV engines

7.3 Which narrow and high-clearance tractors between 56 and 130 kW may be produced and enter into service between 1 October 2017 and 31 December 2019?

On 1 October 2017 Stage IV entered into force for narrow and high-clearance tractors between 56 kW and 130 kW. After that date manufacturers may make use of the existing transitional provisions, sell-off and flexibility, up to the placing on the market date of Stage V engines for this category on 1 January 2020. Consequently, in the period between 1 October 2017 and 31 December 2019 narrow and high-clearance tractors with the following engines may be produced and enter into service:

- Stage IIIB flexibility engines (flexibility percentage is 150%)
- Stage IIIB sell-off engines (up to 30 September 2019 if the engines are produced before 30 September 2017)
- Stage IV engines
- Stage V engines (after 21 July 2018, the entry of force of Regulation 2018/985)

Additional information: CEMA guidelines for transitional provisions & exemptions for agricultural and forestry tractors

7.4 Which narrow and high-clearance tractors between 56 and 130 kW may be produced from 1 January 2020 on?

Which narrow and high-clearance tractors between 56 and 130 kW may be produced from 1 January 2020 on?

- Stage V engines
- Stage IV transition engines (i.e. the engine is produced before 1 January 2020)
- Stage IIIB transition engines (i.e. the engine is produced before 1 January 2020)

After 1 July 2021 only narrow and high-clearance tractors with Stage V engines may be produced.

7.5 Which narrow and high-clearance tractors between 56 and 130 kW may enter into service from 1 January 2020 on?

Narrow and high-clearance tractors with the following engines may enter into service between 1 January 2020 and 31 December 2021:

- Stage V engines
- Stage IV engines, when the tractor is produced before 1 July 2021 and fitted with a transition engine
- Stage IIIB engines, when the machine is produced before 1 July 2021 and fitted with a transition engine

Without prejudice to the end-of-series provision, after 1 January 2022 only narrow and high-clearance tractors with Stage V engines may enter into service.



7.6 When can the Stage IIIB transition engines be produced and placed on the market?

Stage IIIB transition engines for narrow and high-clearance tractors between 56 and 130 kW have to be produced before 1 January 2020. They may be placed on the market either before 1 January 2020 or after 1 January 2020. The last date these transition engines can be placed on the market is 31 December 2021.

Narrow and high-clearance tractors where these Stage IIIB transition engines are fitted may not enter into service before 1 January 2020.

Additional information: Letter European Commission from 19 July 2017

8. What is the exhaust emission timeline for narrow tractors and high-clearance tractors between 130 and 560 kW?

The timeline regarding production and the initial entry into service of high-clearance and narrow tractors between 130 and 560 kW can be divided in two main parts:

- Before 1 January 2019
- After 1 January 2019

This timeline results in different situations regarding type-approval, production, and entry into service of narrow tractors (NTT) and high-clearance tractors depending on the period. In practice this timeline is only applicable to high-clearance tractors as there are no narrow tractors in this power range. Therefore, there is only a reference to high-clearance tractors in the next questions.

Timeline for narrow tractors and high-clearance tractors (130 - 560 kW)

	2016	2017	2018	2019	2020	2021
Production of NTT	Stage IIIB	Stage IV		Stage V		
		Sell-off				
	Flexibility	Flexibility		Transition period		
Initial entry into service of NTT	Stage IIIB	Stage IV		Stage V		
		Sell-off				
	Flexibility	Flexibility		Transition period		

Reference: Regulation 2016/1628 Articles 63 and Annex III Regulation 167/2013 Articles 19 (3) and Regulation 2015/96 as amended by Regulation 2017/686 Article 1 (1) and (2) and Regulation 2018/985

8.1 How is the vehicle type-approval for high-clearance tractors (130-560 kW) impacted?

For Stage IIIB high-clearance tractors in the 130 kW to 560 kW power band the latest possibility of obtaining new EU type-approval was 31 December 2016 due to Regulation 2015/96 as amended by 2017/686.

Up to 31 December 2017 it was possible to obtain the first new EU type-approval, according to Regulation 167/2013, for high-clearance tractors with Stage IV engines between 130 kW and 560 kW. After this date:

- It is possible to extend existing EU type-approvals until 30 June 2020 with another engine belonging to the same engine family or other components not affecting engine emissions of the EU type-approval;
- High-clearance tractors with Stage V engines may receive a new whole vehicle EU type-approval

8.2 Which engines may be installed on narrow tractors and high-clearance tractors between 130 and 560 kW before 1 January 2019?

During this period Stage IV is applicable which means high-clearance tractors with the following engines may be produced and enter into service:

- Stage IIIB flexibility engines (flexibility percentage is 150%)
- Stage IIIB sell-off engines
- Stage IV engines
- Stage V engines (after 21 July 2018, the entry into force of the Regulation 2018/985)

Additional information: CEMA guidelines for transitional provisions & exemptions for agricultural and forestry tractors

8.3 Which engines may be installed on narrow tractors and high-clearance tractors between 130 and 560kW after 1 January 2019?

Between 1 January 2019 and 30 June 2020 high-clearance tractors between 130 and 560 kW with the following engines may be produced:

- Stage V engines
- Stage IV transition engines (i.e. the engine is produced before 1 January 2019)

After 1 July 2020 only high-clearance tractors with Stage V engines may be produced.

8.4 Which narrow and high-clearance tractors between 130 and 560kW may enter into service from 1 January 2019 on?

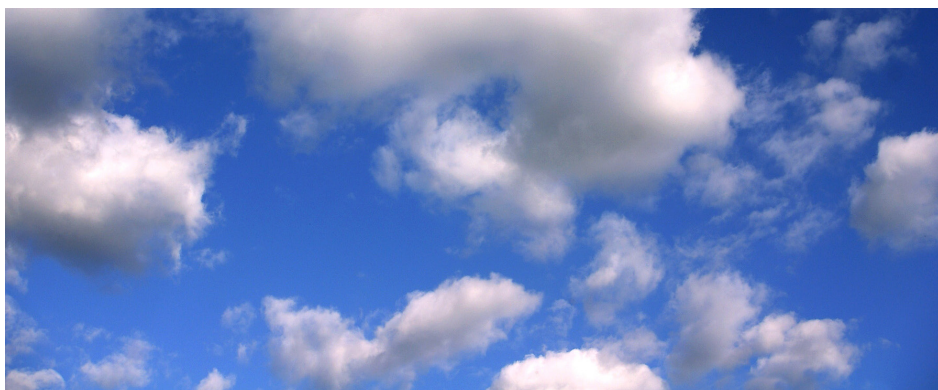
High-clearance tractors between 130 and 560 kW with the following engines may enter into service between 1 January 2019 and 31 December 2020:

- Stage V engines
- Stage IV engines, when the tractor is produced before 1 July 2020 and is fitted with a transition engine

Without prejudice to the end-of-series provision, after 31 December 2020 only high-clearance tractors between 130 and 560 kW with Stage V engines may enter into service.



Bibliography



Regulation (EU) No 167/2013 of the European Parliament and of the Council of 5 February 2013, on the approval and market surveillance of agricultural and forestry vehicles

Commission Delegated Regulation 2018/985 of 12 February 2018 supplementing Regulation (EU) No 167/2013 of the European Parliament and the Council as regards environmental and propulsion unit performance requirements of agricultural and forestry vehicles and their engines and repealing Commission Delegated Regulation (EU) 2015/96

Commission Delegated Regulation (EU) 2015/96 of 1 October 2014 supplementing Regulation (EU) No 167/2013 of the European Parliament and the Council as regards environmental and propulsion unit performance requirements of agricultural and forestry vehicles (repealed with Regulation 2018/985)

Commission Delegated Regulation (EU) 2017/686 amending Delegated Regulation (EU) 2015/96 as regards environmental and propulsion unit performance requirements of agricultural and forestry vehicles.

Commission Delegated Regulation 2016/1788 amending Regulation (EU) No 167/2013 of the European Parliament and of the Council as regards the list of requirements for vehicle EU type-approval, and amending and correcting Commission Delegated Regulations (EU) No 1322/2014, (EU) 2015/96, (EU) 2015/68 and (EU) 2015/208 with regard to vehicle construction and general requirements, to environmental and propulsion unit performance requirements, to vehicle braking requirements and to vehicle functional safety requirements

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

Commission Delegated Regulation (EU) 2017/654, amended by Delegated Regulation (EU) 2018/989, with regard to technical and general requirements relating to emission limits and type-approval for internal combustion engines for non-road mobile machinery

Commission Implementing Regulation (EU) 2015/504 implementing Regulation (EU) No 167/2013 of the European Parliament and of the Council with regard to the administrative requirements for the approval and market surveillance of agricultural and forestry vehicles

Commission Delegated Regulation (EU) 2017/655, amended by Delegated Regulation (EU) 2018/987, on monitoring of gaseous pollutant emissions from in-service combustion engines installed in non-road mobile machinery

Commission Implementing Regulation (EU) 2017/656, amended by Delegated Regulation (EU) 2018/988, on administrative requirements relating to emission limits and type-approval for internal combustion engines for non-road mobile machinery

Frequently asked questions Regulation 2016/1628, 2018, by CEMA, CECE, FEM, EGMF, EUrned Municipal Equipment, Europgen and EUROMOT, <https://bit.ly/2SDTvCL>

CEMA guidelines for transitional provisions & exemptions for agricultural and forestry tractors, June (2012), <https://bit.ly/2RPIM8k>

European Commission letter: Stage V transition engine provisions to the production and placing on the market of Stage IIIB transition engine 56 – 130 kW for installation in (narrow track) tractors of category T2, 19 July 2017, <https://bit.ly/2EecCiK>



The voice of the European Agricultural Machinery Industry

CEMA is the European association representing the agricultural machinery industry. The industry represented by CEMA includes 4 500 manufacturers of agricultural equipment employing directly 135 000 persons and indirectly in the distribution and service network another 125 000 persons. The companies are mainly small and medium-sized manufacturers according to the EU definition and in 2014 had a total turnover of 26 billion Euro.

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