

Fully prepared with Emitec technology

EU Stage IIIB is here with components from Emitec

- **Maintenance-free particle filter**
- **Nitrogen oxide reduction with SCR**
- **NoNO_x AdBlue dosing systems**

Since January 2011 tractors, lawn maintenance and landscaping machinery, harvesters and stationary equipment have had to comply with EU Stage IIIB, which requires a significant reduction in particulate matter and nitrogen oxide (NO_x) emissions. Engine and machine manufacturers and their partners invested a lot of resources in the development of emission reduction systems for internal combustion engines to ensure that this technology was ready for series production.

As one of the industry's leading development partners Emitec Gesellschaft für Emissionstechnologie mbH Lohmar, the specialist for exhaust aftertreatment and world market leader in metal catalyst substrates, supported a large number of manufacturers in the introduction of what has become standard technology. Emitec supplies a unique range of components, has its own test facilities and offers a high degree of application expertise for effective exhaust aftertreatment. This know-how is used to meet the current emission limits of EU Stage IIIB and to comply with EU Stage IV, which will apply from 2014:

PM-METALIT particle filter

Thanks to its compact size this continuously regenerating particle filter can be integrated in the silencer close to the engine. The PM-METALIT is designed to be maintenance-free for the service life of the machine and requires no external regeneration. This combined with a small loss in backpressure helps to keep fuel consumption to a minimum.

SCR systems for nitrogen oxide (NO_x) reduction

Highly efficient metal catalysts with turbulence-generating substrate structures use ammonia to reduce the nitrogen oxides in the exhaust gas. The ammonia is generated from an aqueous urea solution known as "AdBlue". Emitec can adapt the geometry of the SCR (selective catalytic reduction) system according to the space available in the machine and so deal with even the most difficult installation conditions. The SCRi[®] brand is used for systems that combine the SCR function and particle reduction with a PM-METALIT filter in a single unit that requires very little installation space.

Press inquiries to:

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Their robust design using specially developed high temperature-resistant stainless steel makes Emitec systems particularly suitable for harsh operating and environmental conditions.

NoNO_x “AdBlue” dosing systems

In 2010 Emitec added high precision NoNO_x dosing pumps to its product range. These pumps inject the aqueous urea solution “AdBlue” into the SCR system and produce dosing rates of up to 60 l/h in air-assisted or airless operation. The dosing systems, which include an injector and dedicated lines and sensors, can be controlled by the engine management system or operate independently using separate software.

All Emitec components for exhaust aftertreatment are available in a variety of options, which allow the systems to be individually adapted to specific applications. A modular product range makes Emitec systems and components the perfect solution for retrofitting.

Emitec will be presenting a comprehensive overview of its complete range of innovative exhaust aftertreatment technology at stand **B-294**.

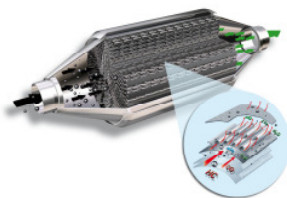
Engine Power	2007	2008	2009	2010	2011	2012	2013	2014	2016	2016
P < 19 kW	No limits									
19 ≤ P < 37	US: NO _x + HC = 3.5 / PM = 0.0 EU: NO _x + HC = 2.5 / PM = 0.3									
37 ≤ P < 66	US: NO _x = 2.0 / PM = 0.4 EU: NO _x = 4.7 / PM = 0.4									
66 ≤ P < 75	US: NO _x = 4.7 / PM = 0.3 EU: NO _x = 4.7 / PM = 0.4									
75 ≤ P < 130	US: NO _x = 4.0 / PM = 0.3 EU: NO _x = 4.0 / PM = 0.3									
130 ≤ P < 660	US: NO _x + HC = 4.0 / PM = 0.2 EU: NO _x + HC = 4.0 / PM = 0.3									

ULSD (<15ppm) →

 EU Stage III B/ Tier 4 Interim

 EU Stage IV/ Tier 4

Emission legislation for NRMM



PM-METALIT



**SCR-Dosing-System
(airless)**



**SCR-Dosing System
(air assisted)**

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