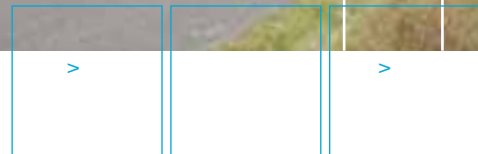


INGENIOUS **SOLUTIONS** FOR MORE EFFICIENT FARMING



www.thecleanenergyleader.com



RESPECTING OUR ENVIRONMENT

All agricultural manufacturers are currently developing engine solutions that meet the rigorous Tier 4A emission regulations, and New Holland Agriculture are offering you cutting edge industry leading engines that are environmentally friendly throughout their entire life.



OUR ENVIRONMENTAL PROMISE

But is all this really necessary? The simple answer is yes. It's not just a legal requirement, New Holland are fully committed to offering farmers intelligent solutions to make agriculture more efficient and kinder to the environment.

NEW HOLLAND: THE CLEAN ENERGY LEADER

New Holland has already introduced industry-leading solutions that have revolutionised environmentally friendly farming, for example New Holland was the first manufacturer to offer 100% biodiesel compatibility. Since 2006 they have been pioneering the use of this renewable, environmentally friendly fuel and today, almost every product in the New Holland range is biodiesel compatible. But it doesn't stop here...



TOMORROW WILL BRING TRUE ENERGY INDEPENDENCE

New Holland Agriculture is dedicated to respecting the environment, and is already developing concepts that go well beyond anything already laid down by future emissions regulations. In fact, they are imagining a zero emissions future, a world in which you will be able to meet all of your own energy needs. It might sound like a dream, but this is reality New Holland style, encapsulated in the NH²™ tractor. It runs on pure hydrogen, produced by you, the farmer, on your future 'Energy Independent Farm'. The NH² itself produces virtually zero emissions, just a little water. New Holland always looks beyond the horizon to deliver you tomorrow's solutions today. Why? To improve the world we live in.



NEW HOLLAND'S COMMITMENT TO YOU

What's all the fuss about? Well, everyone agrees that for a good quality of life, we all need to breathe clean fresh air. But the growing population, urbanization and climate change are making this more difficult, and governments around the world are trying to solve these problems. Farm vehicle emissions might be small when compared to their highway counterparts, but New Holland is committed to doing its bit to reduce these harmful substances.

THE EMISSIONS REDUCTION STORY

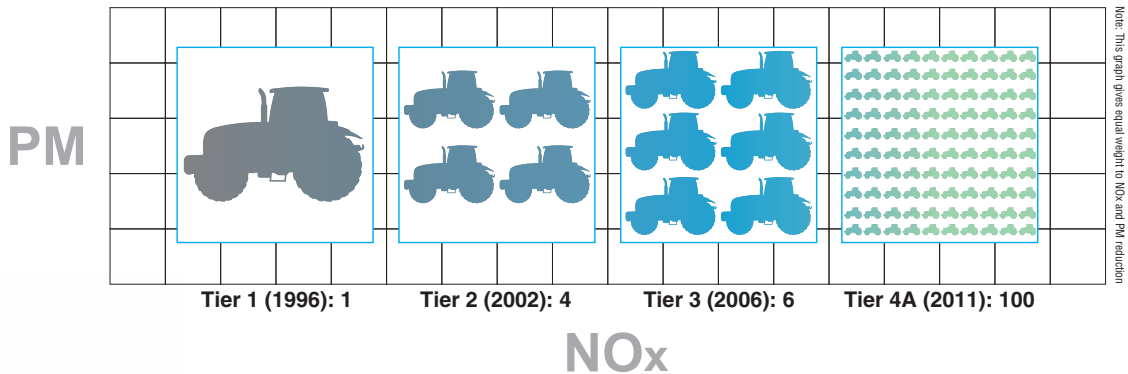
1996 saw the introduction of the first Tier 1 emissions standards, and since then Nitrogen Oxides (NOx) and Particulate Matter (PM) have been reduced by 60%. With the introduction of Tier 4A regulations in 2011, PM will be further lowered by 90% and NOx by 50%. These toxic substances are produced during combustion and can harm the environment and human health. But let's find out a little more about them.

NOx: Nitrogen Monoxide and Nitrogen Dioxide are produced during combustion when the engine is at its hottest. These gases are two of the main causes of acid rain and the shrinking ozone layer.

PM: Particulate Matter is mainly made up of tiny carbon particles and other poisonous substances which are created when not all of the fuel is burnt during combustion, generally when the engine is cooler.

100 TIMES BETTER OFF THAN OVER A DECADE AGO

New Holland have reduced emissions 100 times over the last decade to improve the lives of farmers and their families. In real terms, this means you can run your Tier 4A compliant machine for 100 days and produce the same amount of emissions as a Tier 1 machine would have in just one day.



POWERED BY FPT INDUSTRIAL

New Holland are not going it alone when it comes to Tier 4A technology, they can draw on the experience of their **engine development partner**: FPT Industrial.

Pioneers: Fiat invented **Common Rail technology** in the 1980s and brought it to the masses in 1997 on the Alfa Romeo 156. They were the very first to introduce it on agricultural machines. Pioneering. Always.

Cleaner: Fiat S.p.A. have the **lowest overall CO₂ emissions** of any automotive manufacturer in Europe. Cleaner. Everywhere.

Proven: FPT Industrial have already produced over **150,000 SCR engines** during the last five years for the haulage industry. Reliability. Confirmed.

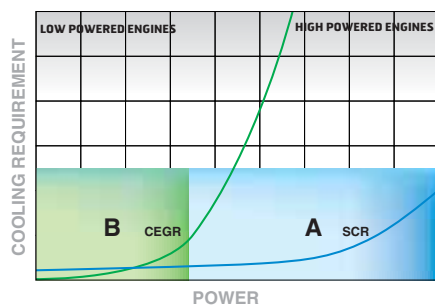
After all, only those who invented it can reinvent it.



TWO SOLUTIONS FOR ULTIMATE PRODUCTIVITY

ONLY THE BEST WILL DO

New Holland has adopted two different solutions based on their respective benefits: Selective Catalytic Reduction (SCR) and Cooled Exhaust Gas Recirculation (CEGR). Why? New Holland Agriculture are not willing to accept an 'off the peg', one size fits all approach. Far from it. They are committed to integrating the best available engine technology, to reduce your operating costs and increase your productivity. This means choosing tailor made solutions for each and every individual machine, after all, no two farms are alike, and neither are two pieces of farm machinery.



CEGR requires a cooling package to cool the hot exhaust gas prior to it being recirculated. Higher powered, larger capacity engines produce higher volumes of hot gas which results in the need for a very large cooling package.

Section A. This made SCR the natural choice for machines over 75kW [100hp(CV)]. Why? It reduces the cooling requirement as well as guaranteeing power output.

Section B. For smaller tractors operating at lower horsepower with lower heat rejection, and therefore lower cooling demands, CEGR is the right solution.

CEGR: COMPACT SOLUTION FOR LOW POWERED MACHINES

YOUR GUIDE TO CEGR:

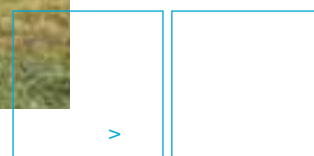
CEGR will be used on lower horsepower tractors as this solution is perfect for products that have lower cooling requirements. The technology is neatly contained within the engine compartment which is why it is already favoured by the automotive business and ideal for small tractors. It decreases NOx emissions by recirculating a controlled quantity of cooled exhaust gas into the air intake. Any remaining particulate matter is eliminated by the external diesel particulate filter which 'cleans' the gas before it leaves the exhaust.

GOOD THINGS COME IN SMALL PACKAGES

Good things come in small packages, and this solution keeps compact tractors compact, as the solution fits into the existing package to guarantee optimum manoeuvrability and all round versatility.



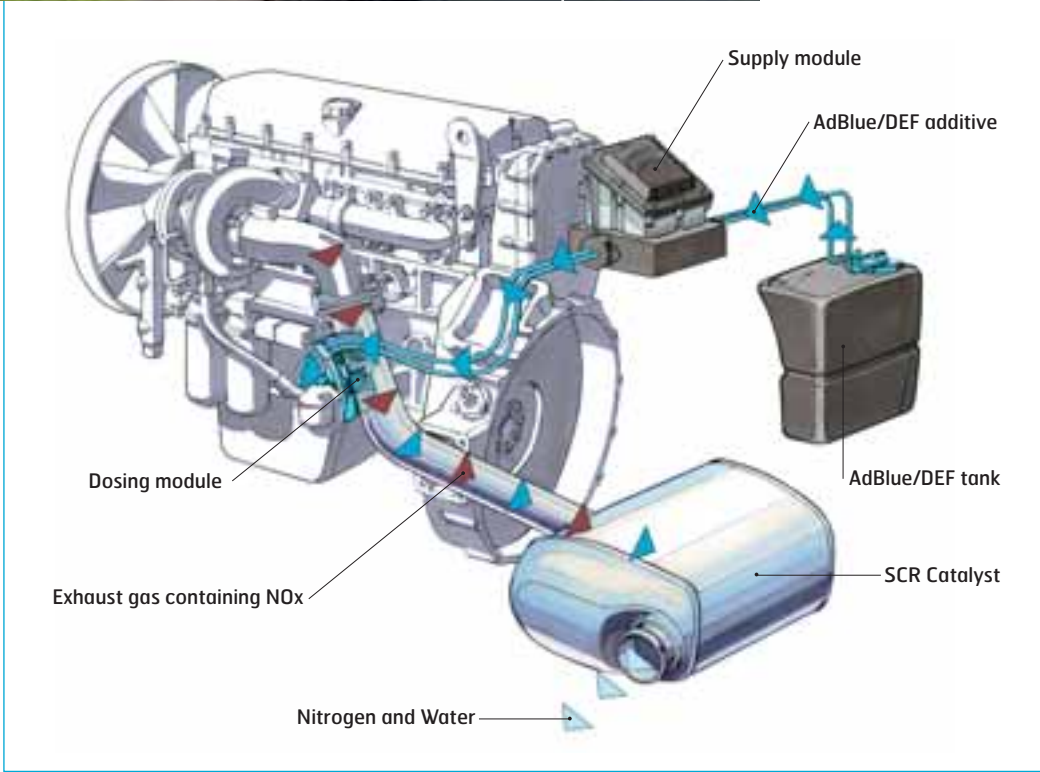
COOLED EXHAUST GAS RECIRCULATION



SCR: HIGH PERFORMANCE, EFFICIENT SOLUTION FOR HIGH POWERED MACHINES

YOUR GUIDE TO SCR

SCR, Selective Catalytic Reduction, uses a catalyst to treat the NOx contained in the exhaust gas, transforming it into harmless water and nitrogen, which both occur naturally in the atmosphere. To achieve this, it uses an after treatment system that adds Diesel Exhaust Fluid (DEF)/AdBlue, a water and urea mix, which is colourless and non-toxic, in the exhaust. The entire system is managed by a Dosing Control Unit (DCU) which is integrated into the supply module and uses a sensor to monitor the exhaust gases. The DCU receives this information, and uses it to calculate the precise amount of DEF/AdBlue that needs to be added to the mixture. As SCR occurs outside of the engine, this allows the engine designers to optimise the combustion process in the engine to reduce PM. Want more? How about guaranteed outstanding performance thanks to features such as Engine Power Management.



SELECTIVE CATALYTIC REDUCTION



ECOBLUE™ THE SCR ADVANTAGE

THE REALITY

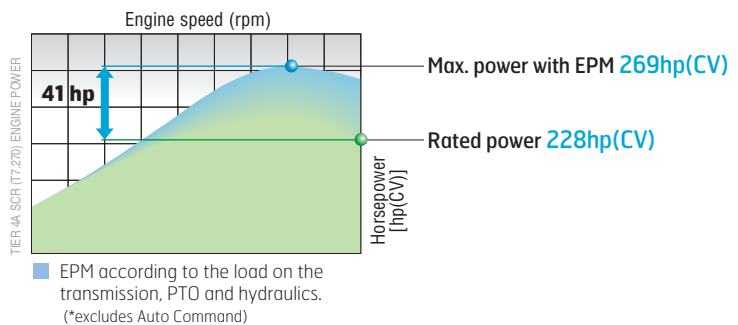
REFRESHING BREATHABILITY:

The ECOBlue™ SCR engine 'breathes' clean fresh air high in oxygen, instead of dirty hot recirculated 'smog', to ensure optimal combustion conditions. The result: **7% increased maximum power** and **13% higher torque***. Cool power. Clean performance.

Nef engine	Tier 3 (T7070)	Tier 4A SCR (T7.270)	IMPROVEMENT
Max power	185kW / 252hp(CV)	198kW / 269hp(CV)	+ 7%
Torque	1025Nm	1160Nm	+ 13%
Torque backup	30%	40%	+ 33%
EPM band	19kW / 27hp(CV)	30kW / 41hp(CV)	+ 52%

CONTROLLED POWER:

Engine Power Management (EPM) tailors engine power delivery to actual operating conditions. ECOBlue™ SCR engines will benefit from **increased EPM output** for improved performance and fuel efficiency in all situations. Intelligent power. Pure and simple.



EXCEPTIONAL FUEL ECONOMY:

The T7000 range is already established as the benchmark by its users for its outstanding fuel economy (DLG testing). With Tier 4A, optimised combustion means more efficient power generation and **up to 10% lower fuel consumption** on Tier 4A ECOBlue™ SCR engines when compared to Tier 3 EGR models, thanks to the uncompromised combustion cycle. Economical power. Improved efficiency.

Nef engine	Tier 3 (T7070)	Tier 4A SCR (T7.270)	IMPROVEMENT
Fuel consumption	289g/kWh	261g/kWh	- 10%

IMPRESSIVE SAVINGS:

Fuel is not the only cost that can be reduced with the ECOBlue™ SCR technology. CEGR engines require more frequent oil changes due to the high levels of recirculated exhaust gas. On selected ranges we will be increasing service intervals by 100%, reducing your cost of ownership. These savings are realised even after taking into account the purchase of DEF/AdBlue. More money stays in your pocket.

CONTINUOUS PAY-BACK:

For every £1.00 spent on DEF/AdBlue, you save up to £2.50 on fuel. ECOBlue™ SCR machines are a guaranteed investment that will always pay-back.

£1.00	=	SAVING £2.50
ON DEF/ADBLUE		IN FUEL*

*All information is based on homologation data.





PROVEN RELIABILITY

With over 150,000 SCR engines produced, FPT Industrial knows a thing or two about engine reliability as their industry-leading SCR system has been extensively developed and tested in the haulage industry over the last five years. FPT Industrial is at the cutting edge of engine technology, and is internationally renowned for its state-of-the-art SCR solutions. This proven technology will give you true peace of mind: your tractor or harvester is always ready when you are, and you can still enjoy New Holland's long service intervals. In short, FPT Industrial and New Holland: engineered for life.

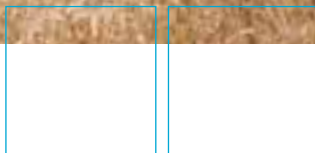


BIODIESEL COMPATIBLE

New Holland approves the use of 20% biodiesel (B20) blends with all Tier 4 ECOBlue™ SCR engines as long as the biodiesel blend fully complies with the latest fuel specification EN14214:2009 and operation is in accordance with operators' manual guidelines.



SELECTIVE CATALYTIC REDUCTION > > >



TODAY'S SOLUTION FOR TOMORROW

Leading experts agree that SCR technology will be invaluable in achieving final Tier 4B requirements. What does that mean for you? Well, for a start you won't have to get to grips with a new solution in a couple of years time. It also means that New Holland will plough investment into developing the next generation of agricultural machinery that will redefine the efficiency, comfort and performance that you demand.

YOUR GUIDE TO DIESEL EXHAUST FLUID / ADBLUE

WHAT IS DIESEL EXHAUST FLUID/ADBLUE?

They are both a water and urea solution that is added to the exhaust gases in the SCR after treatment system to transform them into harmless water and nitrogen. Why do they have two different names? Quite simply, Diesel Exhaust Fluid, better known as DEF, is used in North America, where as AdBlue is the European name for the same product.

WHAT DOES DEF/ADBLUE MEAN FOR MY MACHINE?

Adding DEF/AdBlue will not affect your machine's performance at all. Why? It is contained in the after treatment system, which means power generation remains at the impressive levels you've come to expect of New Holland.

WHAT DOES DEF/ADBLUE MEAN FOR ME?

It means you'll have a more efficient machine with virtually no effort on your part. Throw in the environmental advantages, and it's a win-win situation. How? The DEF/AdBlue system has been engineered by design to offer you the ultimate in ease of use. The additive tank is located next to the diesel one to make filling up even easier. What is more, you only need to fill your DEF/AdBlue tank once every two diesel refills.

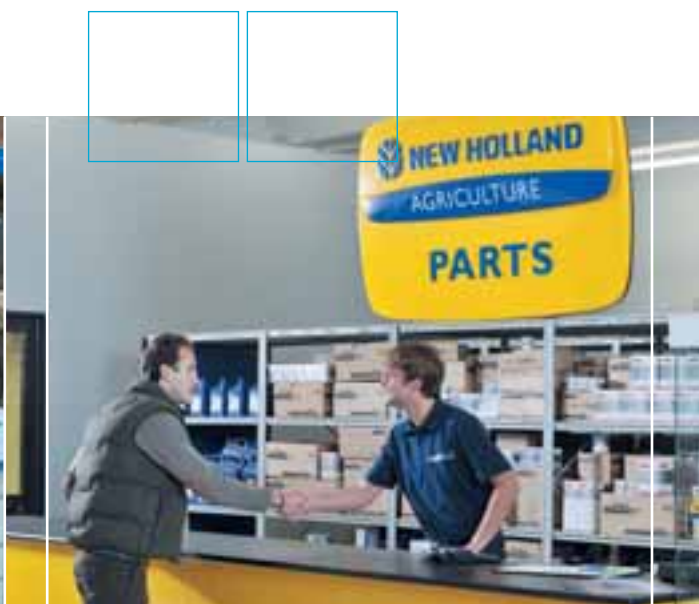
WILL I BE ABLE TO FIND DEF/ADBLUE EASILY?

The answer is yes! It will be available on your doorstep, through CNH Parts & Service; just contact your local dealer for more information. If that wasn't enough, DEF/AdBlue can even be delivered direct to your farm for absolute convenience.

STORAGE?

Not a problem! You'll be able to store DEF/AdBlue on your farm in a container size that suits your needs.

AdBlue®



SELECTIVE CATALYTIC REDUCTION



YOUR SUCCESS - OUR SPECIALTY

Visit our web site or call free phone number: www.newholland.com/uk
- for ROI: www.newholland.com/ie - tel: 00800 64 111 111

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