T6.180 METHANE POWER TRACTOR

90

METHANE

NT.





-TERG

WHOLLAN

HAU

10 Y E A of Sustainable Efficient Technology

WTTT VII

METHANE POWER TRACTOR PROTOTYPE

THE NATURAL ALTERNATIVE

The face of farming is changing. The role of alternative fuels is ever expanding. New Holland is at the forefront of agricultural alternative fuel provision and identified methane as a viable future alternative to diesel. An intensive research and development programme was followed to deliver a fully functioning tractor which can stand shoulder to shoulder with its conventional diesel counterpart. The methane project completes the virtuous cycle of the Energy Independent Farm. Farmers are able to grow the crops and utilise waste products which will be used to generate biomethane, which will power the tractor which will help to grow the crops.

PERFECT PERFORMANCE

The prototype Methane Power Tractor delivers exactly the same performance as that of a standard fuelled machine. 179hp, 740Nm of torque and a six-cylinder Nef engine ensure your farming productivity remains unaltered.

TRUE SUSTAINABILITY

The prototype Methane Power Tractor is a key tool to help today's modern farmers to reach and maintain true and productive sustainability. Part of the virtuous cycle of growing energy, it also produces 80% lower polluting emission than a standard diesel engine. If biomethane is used then the tractor's global carbon impact is virtually zero.

SUBSTANTIAL SAVINGS

It is not only the environment that benefits from the machines powered by methane, but farmers pockets' will too. When using on-farm produced biomethane, the average annual fuel bill can be cut by up to 40%^{*}.

* Based on Italian estimates



See the prototype Methane Power Tractor in action













THE METHANE POWER AT A GLANCE

- 3 tanks integrated into the roof which ensure all-round visibility is maintained
- 4 tanks integrated into the left hand side which ensure easy access to the cab
- 2 tanks integrated into the right hand side
- 179hp structural 6-cylinder NEF engine produced by FPT Industrial
- Total methane storage capacity of 300 litres/52kg, enough for half a day's autonomy. Longer when carrying out light duty activities
- The methane engine is integrated into a standard production T6 tractor, manufactured at our plant in Basildon, UK

MINIMAL VISUAL CHANGE VS. CURRENT T6 PRODUCTION MODEL

3 TANKS INTEGRATED INTO THE CAB STRUCTURE

STATES A

4 TANKS FITTED TO LEFT HAND SIDE

NEW HOLLAND

2 TANKS FITTED TO THE RIGHT HAND SIDE

PURE POWER

The power and torque produced by the methane engine are comparable to those of a standard production T6 tractor.

This means that the Methane Power responds in exactly the same way and enables you to complete the same tasks as before, just more sustainably and with a reduced operating cost.



SIMPLE AFTER TREATMENT TECHNOLOGY

Methane and biomethane are incredibly clean burning fuels, with up to 80% lower polluting emission than diesel. As such there is a reduced requirement for after treatment: less polluting exhaust gases are produced so less 'cleaning' is required. A simple catalytic convertor, similar to those found in the automotive industry, is all that is required.





METHANE ENGINE THREE WAY CATALYST

DIESEL ENGINE AFTER TREATMENT SYSTEM

SAVE MONEY AND SAVE THE ENVIRONMENT TOO



Agribusinesses are exposed to the volatilities in oil prices, making it increasingly difficult to accurately predict future costs. By using standard methane, available through an ever expanding network of gas fuelling stations, farmers will be able to cut their fuel bills by around 25%^{*}. Filling up is easy too, the principle is exactly the same as diesel, one nozzle and it's done. AdBlue is not required either.

If on-farm produced biomethane is factored into the equation, it will not only further reduce fuel bills by as much as up to 40%, but also contribute to maximising the capabilities of a biodigester. Most biomass farms have a quota for the amount of electricity they can feed into the grid, and any excess biomethane, which would cause the quota to be exceeded, is wasted by being burnt. In order to make use of this important energy source, it could be used to fuel tractors, thereby reducing waste and increasing sustainable practices. Furthermore, one of the by-products of biodigestion, digestate, can be spread onto fields as a rich fertilizer.



CONVENTIONAL FUEL

BIOMETHANE

* Based on Italian fuel costs



ENJOY THE BENEFITS OF ENERGY INDEPENDENCE

The Energy Independent Farm is at the heart of New Holland's Clean Energy Leader strategy, a vision, launched a decade ago, which is focused on delivering ever more productive farming in an increasingly sustainable context. The biomethane produced from crops and waste products that is used to generate biomethane is then used to fuel a tractor which will help produce those self-same crops.

This is the true embodiment of the virtuous cycle or production – energy generation – production.





The benefits of methane are simple:

- Reduced emissions means cleaner farming
- The same performance as a standard tractor means productive farming
- Productive farming means producing the food required to feed an ever expanding population

The prototype Methane Power Tractor delivers on every key agricultural metric. Now is the time to invest in the future of farming. The Methane Power Tractor helps to deliver it.



MODEL		T6.180 METHANE POWER PROTOTYPE
New Holland Engine*		6 Cylinder Nef
Compliant with engine emissions regulations		Above Tier 4B/Stage 4
Simple Catalytic Convertor		•
Max. horsepower - ISO TR14396-ECE R120	[kW/hp(CV)]	132/179
Max. torque - ISO TR14396	(Nm @ rpm)	740 @ 1400
Torque rise	(%)	40
Methane tank capacity	(Litres / kg)	300 / 52
Electro Command™ transmission (40kph)	(FxR)	• [16x16 / 32x32]
Minimum speed	(kph)	2.27 / 0.19
Electro Command™ transmission (40kph ECO or 50kph)	(FxR)	○ (17x16)
Minimum speed	(kph)	2.27
Terraglide™ front axle suspension		•
Terralock™ functions (Auto Diff / Auto 4WD)		0
Closed Centre Load Sensing Hydraulics (CCLS)	(Lpm / Bar)	113 / 210
Electronic Draft Control (EDC)		•
Max. no. Electro hydraulic rear valves		4
Max. lift capacity at ball ends	(kg)	7864
PTO engine speed at: 540/540E/1000	(rpm)	1969/1546/1893
Four pillar 360° Horizon™ cab with FOPS - OECD Code 10 Level 1		•
Comfort Ride™ cab suspension		•
Headland Turn Sequencing (HTS)		0
Optimum Horizon™ cab noise level - 77/311EEC	(dB(A))	67
Minimum unballasted / shipping weights	(kg)	6465
Max. permissible weight	(kg)	9500
Dimensions		Same as current product T6 Tier 4A

• Standard / O Option / * Developed by FPT Industrial



10YEARS







Scan here to download the New Holland Apps

www.newholland.com/uk - www.newholland.com/ie

The data indicated in this folder are approximate. The models described here can be subjected to modifications without any notice by the manufacturer. The drawings and photos may refer to equipment that is either optional or intended for other countries. Please apply to our Sales Network for any further information. Published by New Holland Brand Communications. Bts Adv. - Printed in Italy - 01/17 - TP01 - 170004/INB