

New Tractor Range and a New Look For Case IH

CASE IH OPTUM CVX: Innovative new models for European farmers

Assembly of Optum CVX range has started in St. Valentin / New Case IH milestone with stunning design / Excellent power-to-weight-ratio / Efficiency, versatility and reliability 'rethought'

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PRESS RELEASE

More power, excellent power to weight ratio, and dimensions close to those of the Puma range; these are amongst the high-performance features which characterise the new Case IH Optum CVX. As the first Case IH tractor with the new design, including a new bonnet and eye catching signature lighting, the compact design of the Optum CVX provides superb front/rear visibility, making any given task comfortable and provides the operator the ability to keep a close eye on the work being done.

“There are rapid technological advancements in design, construction and performance of modern tractors – and there are key requirements in ‘high-end arable farming’ which our development engineers have kept at the forefront of their mind for the new Case IH Optum CVX. Thanks to the outstanding performance of FPT engines and Hi-eSCR only after-treatment, these tractors are very fuel efficient, low on emissions, and extremely powerful at the same time. They offer excellent performance, productivity and comfort, and we are proud to present this innovative tractor range at Agritechnica this year. We are equally proud to announce that assembly of the new Optum CVX tractors started at our St. Valentin manufacturing site in September this year, and the first units have already left the factory”, says Andreas Klauser, Case IH President.

Underneath the bonnet

The Optum CVX range consists of two models with compact 6.7 litre Efficient Power NEF engines from FPT Industrial, with 270 or 300hp at a rated speed of 2,100rpm and a maximum power of 313hp at 1,800rpm for the larger of the two models. As these engines fulfil Stage IV emission requirements without additional components such as particle filters, the newly designed bonnet allows for excellent forward visibility and the compact engines provide excellent fuel efficiency.

Changes to the engine also include new valve material and design for the engine head, resulting in higher combustion pressure. However, the major change is to the lower part of the engine block and oil sump, with a specific design where the sump serves as the backbone of the tractor, thereby removing stress from the engine block. Whilst the typical weight of the Optum CVX amounts to 11,000kg, this 'structural sump' allows for a maximum gross vehicle weight of 16,000kg, providing multiple ballast and payload options for the customer.

Versatility

The Optum CVX has the ability to put additional power to the ground whilst maintaining the agility of smaller models, thus further increasing efficiency, maximising uptime and increasing comfort levels for the operator, whilst reducing total cost of ownership: "This is the 'Optimal' solution for such a broad range of requirements and specifications. Our engineers have rethought and revised every single detail, always looking for ways to optimise efficiency, performance and reliability alike", reports Dan Stuart, Case IH Product Market Manager.

"The single eVGT turbocharger delivers the high torque required at low engine speeds and responds faster than twin turbos, thus making the Optum a true 'power pack'", says Stuart. "In addition, owners and operators will enjoy the longest service intervals in this power sector and less time and money needs to be spent on routine maintenance. With a massive reservoir of 630 litre diesel and 96 litre AdBlue tanks and idle speed management which reduces the engine speed from 850 rpm to 650 rpm, therefore less time is spent returning to the farmyard for refuelling. This efficiency has been verified by DLG as independent testing association with a PowerMix test result of 249 g/kWh. This PowerMix test has been created to replicate typical customer usage in a repeatable and comparable way and gives evidence that the Optum CVX delivers high performance with frugal fuel consumption," adds Stuart.

New Design

Creating a tractor that offers our customer the best solution is one thing, but we also know that customers and operators like to be proud of the tractor they own and drive. The most striking thing for people when they see the Optum CVX for the first time is the stunning new design; with the new bonnet's dynamic lines and 3D LED lighting, plus signature lights, the tractor announces the new look for Case IH tractors of the future.

The new 4-range CVT and park lock

The continuously variable transmission used in the Optum CVX tractor range was engineered to reliably handle and transmit the high draft loads generated from over 300hp engines. Two available speed options include 30m/h to 40km/h ECO, as well as a 30m/h to 50km/h ECO range; the

maximum speed in reverse is 27km/h in both cases. “In conjunction with the new front and rear axle design and a wheel base of 2,995mm and 2.15 diameter tyres (e.g. 710/75R42), the continuously variable transmission ensures excellent power to the ground and impressive traction whilst, at the same time, helping to achieve maximum fuel efficiency. The Optum CVX tractor also features a new spring applied/hydraulically released park lock.

The Optum CVX features the front axle from smaller Magnum models, with saddle style front axle suspension which features two hydraulic cylinders with 8 degrees of oscillation and 110mm of vertical travel to ensure high comfort and stability on the road. “The shorter front axle to front linkage distance provides an excellent vehicle weight distribution and more compact overall dimensions. In addition, our engineers have gone a long way to maximise the tyre envelope with specially designed fuel tanks, thus providing a very tight turning angle”, highlights Stuart.

Safety and control

To ensure maximum road safety, the Optum CVX can be supplied with ABS to help safe braking in tricky or emergency situations. An optional advanced ABS version is also available. When activated in the field the driver steers normally but, when turning, the inner wheel brake is applied automatically to assist; this is controlled electronically which prevents the wheel from locking up.

A tyre pressure monitoring system is also available, which allows the operator to monitor up to 16 tyres either on the tractor or on implements. The system is integrated within the AFS 700 monitor and allows the operator to set parameters which, if exceeded, will warn the operator on the display. With airline connection available at the rear of the machine, the operator can then re-inflate the tyre to get back to the farm.

4-speed rear PTO, 2-speed front PTO

The 4-speed rear PTO of the Optum CVX range comes standard with an Electronic Speed Shift, and engine speeds are as low as 1,930rpm for 540 PTO, 1,598rpm for 540 economy (ECO) PTO, 1,853rpm for 1,000 PTO and 1,583rpm for 1,000 ECO PTO. The Brake Deselect is also programmable within the HMC II Headland Management Control system.

Another interesting development is the optional 2-speed front PTO which comes with the same design concept as the rear PTO pack and provides the operator two speeds (1,000 or 1,000 ECO) which can be selected from the cab of the tractor with a turn of a knob; with the 1000 ECO option fuel savings can be made in operations such as mowing. With the relatively low base weight, rear and front linkage and its high horsepower, the Optum CVX perfectly addresses the need for flexibility and performing multiple functions, including tasks with heavy front and rear implements.

Hydraulic system: focus on power and efficiency

All Optum CVX tractors feature a low loss hydraulic system and circuits which are designed to provide maximum power and efficiency. "A 165 litre/min at 2,100rpm closed circuit load sensing (CCLS) hydraulic pump is standard and a high flow 220 litre/min at 2,100rpm CCLS pump is available as an option. In both cases, high pump flows provide the potential to achieve the required flow at a lower engine speed", explains Stuart.

Quick attach CAT III hook ends are standard on the rear linkage, which delivers a lifting power of 10,299kg through the range and a maximum at ball end of 11,058kg. Also available as an option are CAT IVN hook ends, a hydraulic top link and a hydraulic top link / drop arm. "The new front linkage offers a maximum lift of up to 5,821kg at ball end, thus providing the power to efficiently work with equally big and productive implements", says Stuart.

The Optum CVX cab: The setting for performance, precision, and comfort

For maximum precision and efficiency, the Optum CVX cab features ISOBUS Class II as standard, with ISOBUS Class III as a factory fitted option. This allows compatible implements to control tractor functions such as steering, forward speed, hydraulic lift, PTO and rear remotes. For operations such as baling this can improve efficiency with a more constant flow of material through the baler and reduce operator fatigue. The Optum CVX tractor is also available with the HMC II Headland Management Control announced for the Puma range earlier this year at the SIMA show in France. This offers the operator the advantage of reducing the complication of headland turn operations, again reducing operator fatigue.

Maximum comfort and an optimum working environment are provided with cab suspension as standard and a premium range of seat options, including the dual motion operator seat with swivel headrest, a forwards / backwards adjustable lower seat cushion, an electronically adjustable armrest and 15° seat swivel to aid in rear visibility, as well as seat heating and ventilation in both fabric and leather finishes.

AFS – Advance Farming Systems

Optum CVX tractors are also available with RTK for high accuracy automated steering, with the tractor AccuGuide system and telematics ready, including the Remote File Transfer Function. This new wireless function saves time, removes the need for USB data transfer and allows data exchange via 3G between the farm office or other external farm computers and the machines via Advanced Farming Systems software "on the go".

Case IH Optum CVX – the answer to our customers' needs

The Optum CVX enhances a Case IH product range that has never been stronger, more innovative and more customer-oriented than today: 13 product lines and more than 220 models stand ready to serve – high reliable performance machines backed by dedicated dealers, offering premium products and services to Case IH customers.

“For the Optum CVX, an in-depth customer clinic was held, involving owners of a variety of brands in the 180 to 300hp segment. We thoroughly evaluated demands and expectations which then were implemented in the development, design and manufacturing of the new tractor range. One key requirement: whilst businesses need to increase their profitability by maximising the potential from available resources, European farming and contracting businesses clearly focus on the manoeuvrability and compact dimensions of highly versatile and powerful tractors. That is what our development engineers kept in mind – and that is why we are convinced that the Case IH Optum CVX will soon be appreciated as a truly versatile and reliable high performer”, concludes Andreas Klauser.

The Case IH Optum at a glance:

- # Two models with 6.7 litre Stage IV FPT engine and 270 or 300hp at a rated speed of 2100 rpm
- # Hi-eSCR only exhaust after-treatment
- # Maximum gross vehicle weight of 16,000kg
- # eVGT single turbocharger
- # Longest service interval in the power sector
- # 630 litre diesel tank and 96 litre AdBlue tank
- # 4-range CVT with either 30m/h to 40km/h ECO or 30m/h to 50km/h ECO
- # ABS/ABS Advanced and automatic park lock
- # 4-speed rear PTO, 2-speed front PTO
- # 165litre/min CCLS hydraulic pump as standard, 220litre/min available as option
- # Rear linkage with 11,058kg maximum lifting power at ball ends
- # Front linkage with 5,821kg maximum lifting power at ball ends
- # ISOBUS Class II/III and RTK from the factory
- # Headland Management Control (HMC II) and Remote File Transfer Function
- # Optimum comfort and ease of operation

Case IH Optum CVX specifications overview:

Model Range	Optum 270 CVX	Optum 300 CVX
Engine		
Rated Power @ 2,100rpm KW/HP (CV)	199 / 271	221 / 300
Maximum Power @ 1,800-1,900rpm KW/HP (CV)	212 / 288	230 / 313
Transmission Options		
Powershuttle	•	•
Continuously variable transmission 50km/h ECO or 40km/h ECO	•	•
Wheelbase(mm)	2,995	2,995
Rear 4 Speed PTO	•	•
Front 2 Speed PTO	□	□
Hydraulics		
Front HPL Max Lift Capacity (kg)	5,821	5,821
Rear HPL Max Lift Capacity (kg)	11,058	11,058
Hydraulic Flow Pump Capacity 165 (l/min)	•	•
Hydraulic Flow Pump Capacity 220 (l/min)	□	□

• = Standard □ = Optional

Press releases and photos <http://mediacentre.caseiheurope.com/>.

Case IH is the professionals' choice, drawing on more than 170 years of heritage and experience in the agricultural industry. A powerful range of tractors, combines and balers supported by a global network of highly professional dealers dedicated to providing our customers with the superior support and performance solutions required to be productive and effective in the 21st century. More information on Case IH products and services can be found online at www.caseih.com.

Case IH is a brand of CNH Industrial N.V., a World leader in Capital Goods listed on the New York Stock Exchange (NYSE: CNHI) and on the Mercato Telematico Azionario of the Borsa Italiana (MI: CNHI). More information about CNH Industrial can be found online at www.cnhindustrial.com.

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