AMAZONE

Condor

Condor trailed seed drill

in working widths of 12 m and 15 m

The Condor trailed seed drill utilises individually-guided ConTeC pro sowing coulters, in row widths of either 25 cm or 31.3 cm/33.3 cm, making it particularly suitable for use in extensive farming methods as found in continental dry regions. In working widths of 12 and 15 m, and with its 8,000 litre, 3 section pressurised seed tank, the Condor offers enormous working efficiency.

Condor with working widths up to 15 m

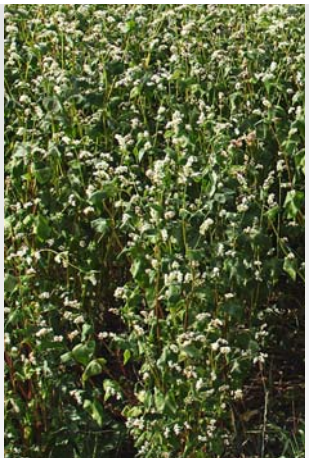
Condor

Wide in the field, narrow on the road

FOR FURTHER INFORMATION
www.amazone.net/condor

Condor – for direct sowing

Condor 15001



Millet

Winter wheat

Spring rape following spring wheat

Spring wheat following spring rape

The concept – for extensive farming systems

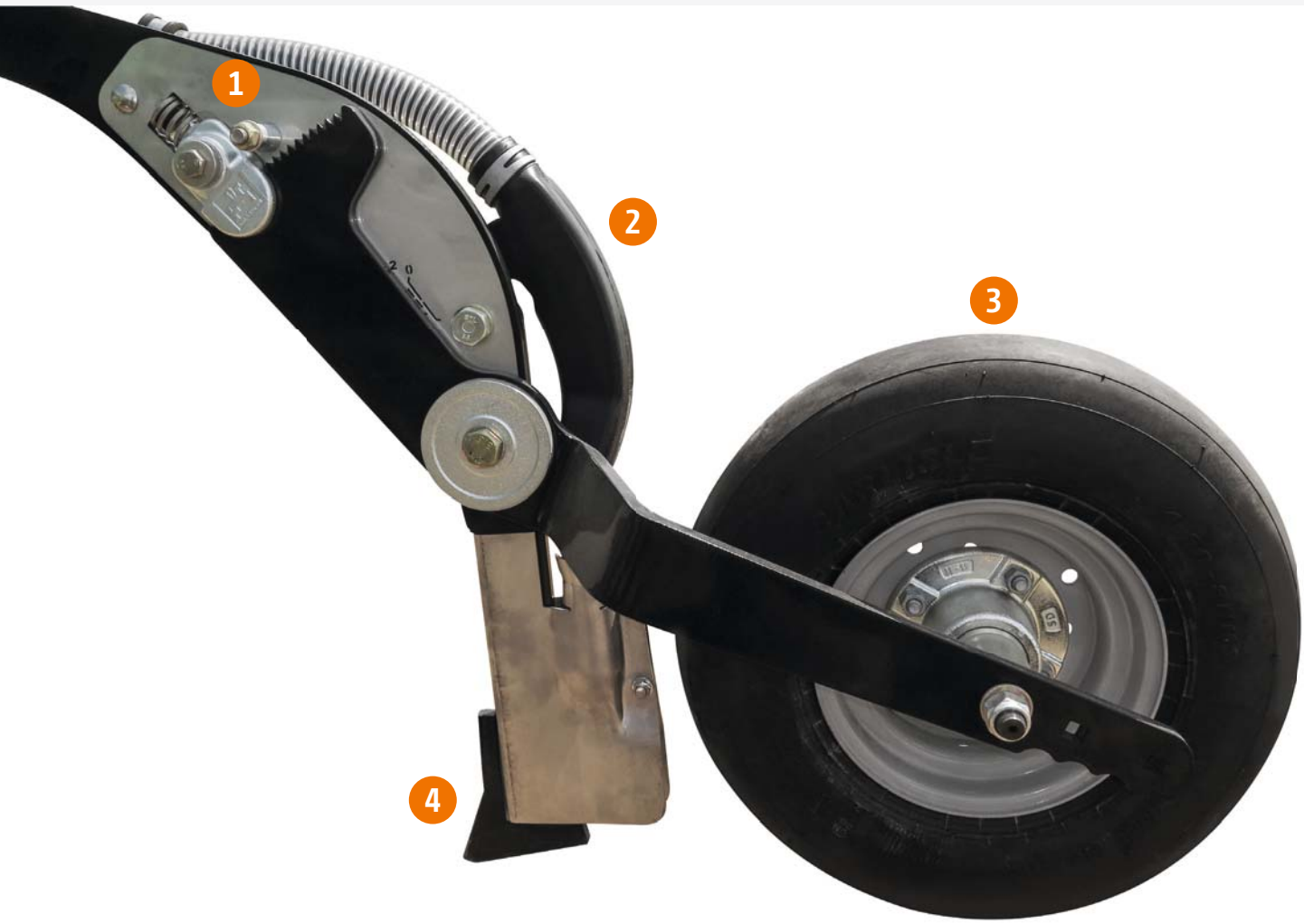
The AMAZONE Condor is the ideal machine for operation in arable farming systems where there has been a minimum of prior soil tillage and in direct sowing. Especially in large arable areas, where time and soil moisture are the limiting factors, the Condor stands for high work rates, precision and water conservation. The low pulling power requirement in relation to its working width just helps significantly in reducing the financial costs in these most extensive arable farming systems.

The machine concept of the Condor has been developed to meet the demand for further reductions in sowing intensity in the wider working widths of more than 9 m, with a wide row spacing and minimally invasive seed placement. The seed drill is offered in working widths of 12 and 15 m. With the exceptional folding concept, it is also possible for the Condor, from its working width of 15 m, to fold in to a remarkable transport width of only 3 m.

Catch crop mixture

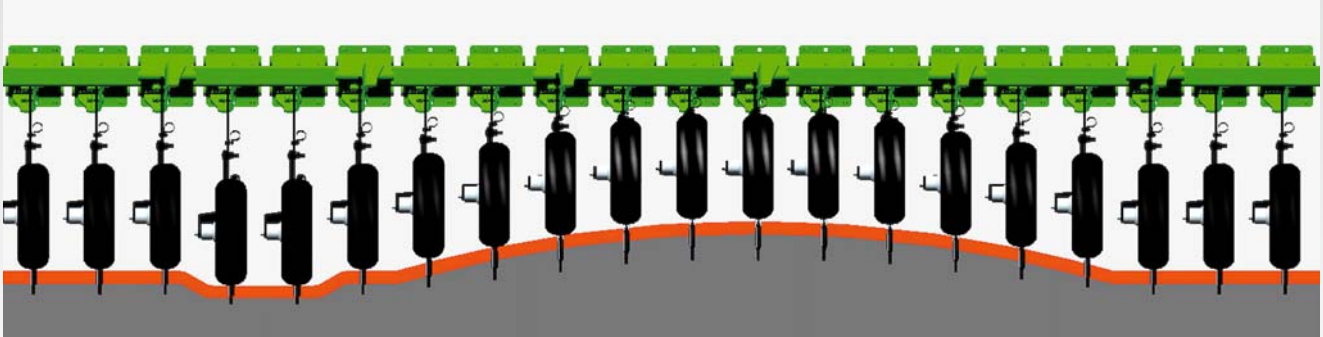
The folding concept takes a working width of up to 15 m down to transport width of just 3 m. So, even reversing is no longer a problem.

The “ConTeC pro” coulter system



ConTeC pro coulter

① Precise depth setting
② Air diffuser
③ Packer wheel
④ Chisel coulter



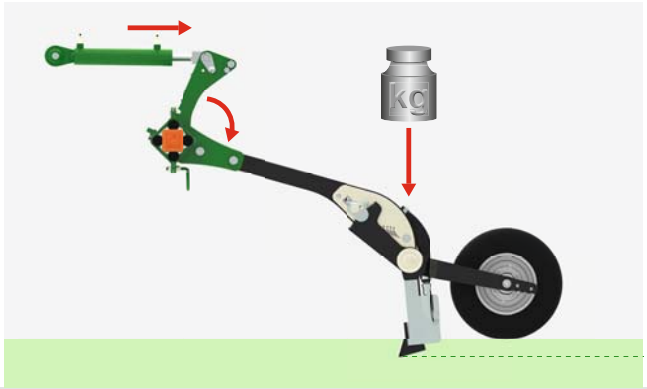
Setting the depth guidance on the tine coulters

ConTeC pro tine coulters for a long service life

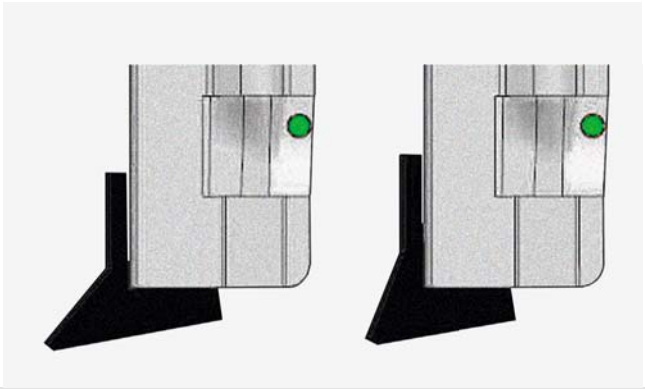
Also on the Condor, AMAZONE relies on an individually depth guided tine coulter. When opening the seed furrow, the narrow ConTeC pro coulter moves little soil, so that the valuable soil moisture remains in the soil, however it provides sufficient fine soil to ensure the optimum seed/soil contact. Straw is safely cleared from the seed furrow, preventing the "hairpinning-effect" which is the pressing of straw by the coulter into the sowing slit.

Two coulter tips are available for the ConTeC pro coulter system. For most soils the coulter tip with a 68° angle of attack ensures the best penetration into the soil and thus placement depth is well maintained. Under very hard conditions, the coulter tip with the shallower 50° angle of attack, which gives an increased penetration into the soil, is utilised. The coulter tips are equipped with a hard metal layer, ensuring a long service lift, even under the most arduous of conditions.

The innovative "ConTeC pro" coulter is characterised by its accurate following of the ground undulations due to the following packer wheel. As well as the correct depth control, this provides reconsolidation, which is so important in dry regions in order to achieve optimum contact between seed and soil. For the flexible operation in any soil conditions four versions of packer wheel are available for the Condor.



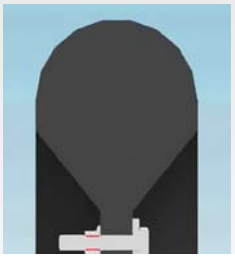
On each half of the seed drill, each coulter row is provided with its own hydraulic ram, which twists the coulter bar applying pressure to the coulters. In this way a coulter pressure of 120 kg is achieved at the tine tip.



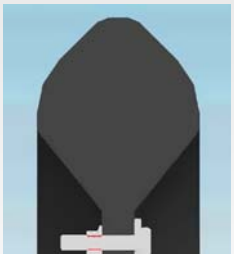
New alternative: 50 degree angle

Standard: 68 degree angle

Air filled wheel



Fully foam-filled wheel – round profile



Fully foam-filled wheel – triangular profile

Semi-pneumatic wheel

The different packer wheel profiles

Air filled wheel
The air filled wheel is suited for a large variety of operational conditions. By the flex in the tyre it is kept free from wet soil. Under dry conditions, it provides a reliable reconsolidation of the soil.

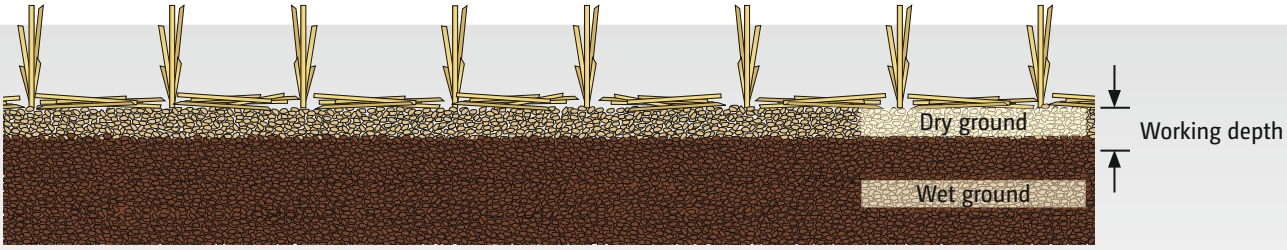
Fully foam-filled wheel – round profile
Due to its robust design, this wheel is ideally suited for operating in extremely dry conditions and where rigid stubbles prevail. Burst tyres and cost-intensive down times are no longer a matter of risk. The hard wheel provides optimum reconsolidation of the seed furrow.

Fully foam-filled wheel – triangular profile
Due to its wedge shape, this wheel provides the maximum contact pressure in especially dry conditions and on light soils. Its robustness pays off especially when sowing in rigid stubbles.

Semi-pneumatic wheel
This tyre is the real all-rounder indeed. Its thick rubber wall makes it extremely resistant against even the stiffest of stubbles. Under dry conditions, this tyre achieves a very good reconsolidation. The air chamber provides this tyre with a very good flexibility preventing the sticking of wet soil on the wheel.

Precise placement depth

The sowing depth can precisely be adjusted from 0 to 10 cm. The new depth control of the ConTeC pro coulter system ensures the utmost comfort and precision when setting the sowing depth. Thanks to the modern tool-less adjustment of the sowing depth, all the coulters can be re-adjusted to the desired placement depth within the shortest time period. This is of special importance when a change in crops to be sown is intended. On larger farms, this allows for the quickest possible response to changing weather conditions. When sowing under very dry conditions, the sowing depth can be matched without problem to find the continuously retreating moisture horizon in the soil, increasing the time frame for sowing and peaks within the sequence of operation can be compensated for.



The coulter arm is made from special spring steel. Because of this, the coulter can avoid obstacles by moving to the side and it almost inevitably travels between the rows of stubble from the previous crop.

Perfect ground contour following

The flexible connection between the frame sections and the coulter is achieved via the proven rubber spring elements. So, soil undulations (and a maintained sowing depth) of up to 65 cm can be compensated for.

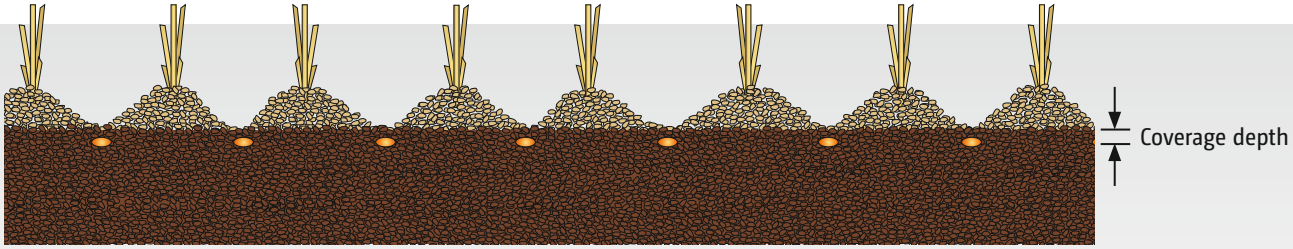
The ConTeC pro coulter achieves this perfect ground adaptation through its simple yet ingenious construction without the need for the usual hydraulic cylinder on every coulter. That reduces the incidence of failure and, of course, not least, the price.

The coulter pressure can be adapted to the conditions hydraulically by turning the frame sections. In extreme conditions, a pressure of up to 120 kg can be set per coulter.

The distance of 25 cm between the coulters in a three-stagger layout and the frame height of 80 cm ensure work continues without chance of blockage, even if there are large quantities of straw or if the straw is not particularly evenly distributed.

The new air diffuser on the coulter provides a constant air stream in the delivery pipe from metering up to the coulter. Flexibility with regard to the choice of blower fan speeds increases.

ConTeC pro coulter with air diffuser



Condor is available in either 25 cm or 31.3/33.3 cm row spacing

Condor 12001-C

Condor for increased efficiency

In future, sowing with the trailed seed drill can be matched to the prevailing conditions of an individual region even more precisely.

The 25 cm row width means the ability to choose a higher seed rate. The improved plant distribution and the larger water supply in the moister Steppe regions provide the ideal preconditions to minimise any competition within the row.

In very dry regions, the wider row width of 31.1/33.3 cm and normal seed rates are recommended, providing, in areas of a heavily changing moisture supply, each plant with the maximum of the available water and effectively reducing the risk of premature ripening and heavy yield losses. In addition, both power and fuel consumption are reduced and work rates are increased by the higher forward speeds achieved.

In rape and wheat crops, practical trials in dry Steppe regions show even higher yields at a 31.3/33.3 cm row spacing and, in moist years, the same yields as with a 25 cm row spacing. In this way, operating resources are effectively saved.

Precise for sowing rape

The success of rape sowing in high continental regions depends, to a large extent, on the sowing technology. Due to the short dry growth period, the right placement of the seed and the exact metering of the seed rate, especially with rape, are of decisive importance. A quick crop establishment and the utilisation of the available moisture alongside the overall temperature play a major role. The precise and optimised placement of the rape seed into the moist soil substantially influences the crop development and the yield level. With the aid of the very good individual guidance, the ConTeC pro coulters ensure the maintenance of the sowing depth of the seed.

Against the background of the very dry weather of the continental Steppe regions during the growing period, it is of even more importance to supply every plant with the maximum water available. With rape, the seed rate plays a decisive role. Thin sowing promotes the good development of the individual plants and reduces the danger of the yield being decimated through premature and stress ripening. Via the stepless Vario gearbox, rape can be precisely metered at 2 kg/ha. With the Condor, an excellent lateral distribution is achieved over the entire working width resulting in even crops.

Pressurised tank and metering

3 section pressurised tank

The Vario gearbox provides seed rates of 2 to 400 kg.

The Condor trailed seed drill features a modern pressurised tank with an 8000 l hopper capacity. Thanks to two large sections (2/3 seed + 1/3 fertiliser) the fill times are reduced to a minimum. The familiar Vario gearbox allows application rates of 2 to 400 kg/ha of seed and is therefore suitable for all practical applications.

The fertiliser is inserted into the sowing slit with the seed. In this way, it is possible to apply an appropriate initial dosage (when sowing winter corn) or full optimum fertilisation (when cultivating spring crops in continental conditions) directly into the ground without losses.

All the components required for calibration are very easily accessible on the left-hand side of the machine.

A sluice gate underneath the seed metering system makes it possible to use the machine for only sowing partial widths.

System and operational conditions

When using reduced mulch sowing or direct sowing methods, it is important in both cases that the fertiliser is placed in the ground below the crop residues in order to prevent losses due to gas emission, especially in times when fertiliser costs are rising. This concept is also incorporated in the Condor direct seed drill. Scientific trials in Regina, Canada and Samara, Russia show that with this method it is possible to apply 30 kg/ha of pure N when sowing wheat and approximately 25 kg/ha when sowing rape. In the very dry and continental conditions in Canada and the Eurasian Steppe, where the potential yield is relatively low, this quantity is often completely sufficient for the usual spring cropping.

Thanks to the technical features of the Condor as described, it is ideal when used for direct sowing of large-sized farms.

The coulter is only 12 mm wide and thus only moves the soil as little as is absolutely necessary for optimum seed placement under the straw. This not only prevents ground water loss but also lowers the tractive power requirement and diesel consumption. In extensive tests under operational conditions, 220 hp was sufficient tractor power for the Condor 12001. On average, the spectacular figure of only 2.7 litres of diesel per hectare was required with the Condor 15001. Also under operational conditions, the Condor 15001 was able to achieve a daily work rate in 13 hours of 150 hectares at a working speed of 8 to 10 km/h.

The advanced direct seed drill gives farmers who are turning their attention to pure direct sowing every opportunity to implement this method to its full potential.

The benefits:

- Minimum ground disturbance
- Fertiliser applied with the seed
- Seed placed at an optimum depth below the straw and in the appropriate reconsolidation
- Extremely wide variety of crops can be sown
- Huge cost reduction

Condor with on-board hydraulics for Kirovez tractors

Optimised technology for the “Yellow Giants”

For many decades on farms in the CIS states the “Yellow Giants” are the standard tractors for multiple operations on the farm and in the field. Now AMAZONE offers the possibility to operate ultra-modern sowing technology with the available powerful and robust tractors. Measurements have proven an actual fuel consumption with a K700A in operation with a 12 m Condor of just 1 l/ha more than with a modern imported tractor. So the financial pressure to have to purchase a new tractor for the new sowing technology is done away with. In addition, the combination of this Russian tractor with the Condor operates highly efficiently in the field during the sowing operation.

On-board hydraulics

One high-capacity clip-on pump is driven via the PTO output of the tractor and provides the necessary hydraulic pressure for a tractor-independent oil flow on the seed drill.

The spool valves for regulating the coulter pressure and for raising the main frame on the headland are operated from the driver's seat. These are the most used functions and are combined with the tractor own hydraulic circuit.

In most cases, the tractor spool valve for folding the wings is only used when starting and finishing work. Therefore this is implemented, in the same way as the on/off control of the blower fan via a separate control block on the seed drill.

As only two hydraulic sections are directly connected to the tractor's hydraulic circuit, the danger of pollution due to dirty hydraulic oil is clearly reduced.

Long-life components

The high-capacity oil cooler prevents any overheating of the oil circuit. At the same time the blower fan of the seed drill sucks air for the delivery route through the fins on the cooler. The heated air effectively prevents the sticking of seed and fertiliser at high application rates. This is of great advantage in moist weather and high air humidity.

Tractor wheel track eradicators

For operation on loose or poorly reconsolidated soils, tractor wheel track eradicators are available as an option. The wheel marks are loosened and levelled. By hydraulic actuation, the lowering and lifting is carried out automatically on the headland or when folding for transport.

Tractor wheel track eradicators

Tractor wheel track eradicators, raised

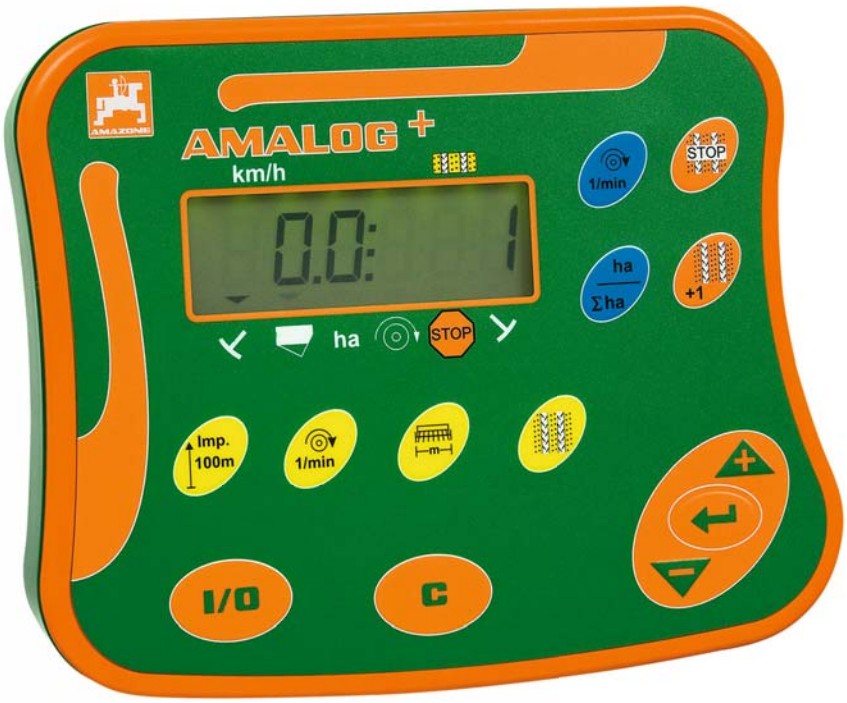
Technical data: Condor trailed seed drill

	Condor 12001	Condor 15001
Working width (m)	12.00	15.00
Transport width (m)	3.00	3.00
Transport height (m)	3.95	3.95
Operational speed (km/h)	8 – 10	8 – 10
Work rate (ha/h)	8 – 9	8 – 12
Pulling power from (kW/HP)	160 / 218	200 / 272
Seed hopper capacity (l)	5000	5000
Fertiliser hopper capacity (l)	3000	3000
Linkage system	Lower linkage Cat III up to Cat V	Lower linkage Cat III up to Cat V
Weight (kg)	9500	10500
Row spacing (cm)	25 / 33.3	25 / 31.3

AMALOG+ on-board computer

The AMALOG+ on-board computer, via a sensor, controls the tramline changeover.

Reprogramming to other tramline rhythms is very quick and easy. The working position of the tramling rhythm, fan speed, the area sown and the hopper fill level are displayed.



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Machine illustrations can vary due to country-specific traffic legislation.

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MI6044 (en_GB) 02.17 Printed in Germany www.amazone.de www.amazone.co.uk E-Mail: amazone@amazone.de