



BiG M 500

High-capacity SP mower conditioner



BiG M 500

The world's most powerful SP
mower conditioner



- Ultimate efficiency: Merge crop from a 13.20 m (43'4") work width into one windrow
- Heavy-duty cutterbar with SafeCut impact protection
- 382 KW/520 hp horsepower
- New, ergonomic and spacious SilentSpace cab
- Standard auto-steer ready for ISOBUS steering systems (DLG awarded)





BiG M 500 – all-round vision on big work!

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The BiG M concept

proven thousands of time!

- Optimum weight distribution to protect the turf
- Merge more than 13 metres (42'8") into one windrow
- 40 km/h (25 mph) road speed
- Low center of gravity translates into high stability

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20 May 1996

BiG M is unveiled to the public. Using the well-proven EasyCut mowers, BiG M cuts a 9.1 m (29'10") pass in one operation. The high-output mower is powered by a 300 hp engine.



November 2001

KRONE introduces the modified BiG M II at Agritechnica show, Germany. This model marks a substantial enhancement in operator comfort and features plenty of innovations including a 9.7 m (31'10") work width, a new and spacious cab that brings operator comfort to a new dimension. A 360 hp, 12-litre, six-cylinder, inline engine and 40 km/h gearbox make BiG M II one of the fastest self-propelled mowers.



Chronology of a success story

Since its introduction to the international markets in 1996, KRONE BiG M has produced best results and delivered ultimate workrates. Three powerful and heavy-duty mowers from the well-proven EasyCut range as well as powerful and massive conditioner rotors produce forage of the best quality and use a unique system of augers to merge the crop into one single windrow. In addition, a low center of gravity and excellent weight distribution make for best rides at 20 km/h (12.5 mph) in the field and at 40 km/h (25 mph) on the road.



November 2009

KRONE introduces BiG M II's big brother at Agritechnica show. Powered by an up to 520 hp engine and working at a width of 13.2 m (43'4"), BiG M 500 brings sheer efficiency and output. Despite its enormous work width, the SF mower retains the augers that merge the cut crop into one windrow.

November 2011

The 'little' brother is catching up quickly. Powered by an up to 420 hp engine and featuring the new Silent-Space cab and a new ergonomic joystick, BiG M 420 from KRONE offers a significantly higher operator comfort than its predecessor. The MAN six-cylinder inline engine with SCR technology offers plenty of grunt and is yet frugal on fuel.





The cab

Operator comfort to the max

- Generous glazing for maximum vision
- Suspended cab for maximum comfy seating
- Standard climate control for maximum comfort
- New joystick for maximum ease of operation



Wider, quieter, brighter:

The new KRONE BiG M cab with generous glazing and slim posts offers a perfect view of all decks. On top of that, the double floor gives effective insulation from noise. Powerful H3 work lights, which may be replaced by Xenon lights, turn night into day.

EasyTouch Display

All formation is instantly available on the EasyTouch high-resolution colour display screen. Enter the sub-menus quickly and easily from the keys next to the display screen.



SilentSpace – the name says it all

A generous and quiet space – that’s the new KRONE cab. Catering for all operator needs during those long working days ... and nights, the cab interior was developed to the latest ergonomic standards and offers such convenient details like passenger seat, climate control and electric cool box. Logically grouped, all buttons offer fingertip control. Enjoy the ride as you have all data at hand and all functions at your fingertip.



Functional

The switches that operate the head lights, the work lights, the wipers as well as the heating and air conditioning controls are located in the roof right in front of the operator. The ‘Follow Me Home Function’ delays light deactivation of two work lights for 180 seconds as the operator leaves the cab.

Easy operation

Pre-sets “cutting height 2”
Pre-sets “cutting height 1”
Shuts off all mowers
Changes the steering mode
Raises / lowers all mowers
Automatic levelling
Activating control
Sets the ratios of acceleration

Autopilot (option)
Raises / lowers front mower
Raises / lowers left mower
Raises / lowers right mower

Cross control
Activates / deactivates the mowers

- Front mower only
- Right mower only
- Left mower only
- All mowers

Joystick
Accelerates (forward speed)
Decelerates (when reversing)
Starts the machine as you press and hold the activating control
Middle position
Slows down to 0 km/hr
Reverses rapidly as you press and hold the activating control
Decelerates (forward speed)
Accelerates (when reversing)
Cruise control

Max / min speed
Field mode
Increase / reduce engine speed

Activates mower transport/ work raise/lower function as you press the appropriate controls

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The driveline

Maximum comfort from the hydraulic transmission

- Infinitely variable ground speed control from joystick
- Reduced engine speed in road travel
- Standard four-wheel drive
- Travelling at 40 km/h (25 mph) on public roads



The hydraulic transmission on KRONE BiG M 500 steers through tight turns and provides modulated control when inching up in confined space. The four-wheel drive is permanently engaged. In the field the machine operates at a max. 20 km/hr (12.5 mph) and on roads at a max. 40 km/hr (25 mph). You can split the circuit as required to have each axle supplied with oil by a separate pump, offering maximum traction in difficult terrain.



Engine power to the ground – via wheel motors

Wheel motors ensure BiG M maneuvers easily, even in awkward fields. Two-speed radial piston motors drive the two front wheels, whereas the rear wheels are driven by hydraulic servo motors and planetary gears.



High ground clearance for blockage-free operation

An innovative driveline and hydraulic wheel motors make for plenty of ground clearance and blockage-free operation – even when both augers are feeding the crop to the middle.



Four identical wheels make for massive traction

Radial 800/65 R 32 tires come as standard and 800/65 R 32 or 1050/50 R 32 tires as optional specification. The oversized tires give soft treading and transfer the full engine power to the ground. At the same time, they offer maximum operator comfort.

The intelligent steering system

One system suits all situations



BiG M 500 features four-wheel steering as standard specification. The operator can choose between various modes.

Road mode

BiG M features four-wheel steering. However, in road mode, rear axle steering is less prominent to the point that the axle blocks up altogether when the machine is travelling at speed. It then goes into two-wheel steering to ensure maximum stability at high transport speed.

Field mode

Field mode offers operators the choice between auto and manual mode. Auto mode provides four-wheel steering on the headland when the mowers are raised and two-wheel steering in work when the mowers are lowered. The rear axle is slightly steered in the opposite direction, bringing the point of pivot in line with the rear decks so these will not veer out when cutting around corners. Manual mode allows operators to select four-wheel or two-wheel steering from a joystick control.

Drifting on slopes

Every operator is familiar with this situation: the rear end of his machine tends to drift downhill as he is operating across the slope. To keep the machine on track and ensure optimum overlap, BiG M offers you the option to oversteer the rear axle to suit the current situation. All you need to do is press a joystick control.



The engine

Strong and efficient

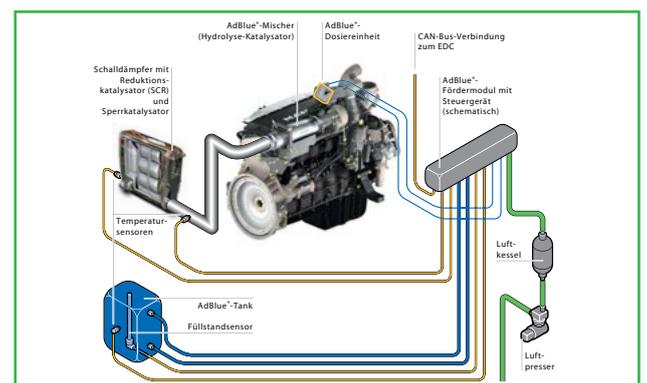
- Inline, six-cylinder 382 KW/520 hp engine
- Self-cleaning radiator with rotating drum screen and exhaust blower
- SCR technology for maximum efficiency
- Quiet running and fuel-efficient in the field and on the road



SCR technology

SCR stands for 'Selective Catalytic Reduction'. This system injects urea relative to the current engine speed into the exhaust pipe just ahead of the catalyst. The liquid converts the nitrogen oxides, which develop during the combustion process, into nitrogen and water. The advantage is obvious: There is no need to recirculate the exhaust gases into the engine's suction system, a process that reduces the quantity of oxygen

to minimize the development of nitrogen oxides as combustion takes place at lower temperatures, which is less effective. SCR technology enhances the engine's fuel-efficiency, because here the timing of combustion is perfect. Exhaust gas recirculation technology, by comparison, is significantly less fuel-efficient while engine output is the same.



Powerful and soft

Despite pumping out an enormous power of up to 520 hp, this new and advanced Common-Rail, inline, six-cylinder MAN engine runs extremely quietly. Equipped with SCR Selective Catalyst Reduction technology to inject liquid urea into the exhaust fumes, the unit complies with Emission Stage IIIB / Tier 4i regulations. The advantage is obvious: there is no need for exhaust gas recirculation, so that the engine can generate its full power at greater efficiency.



The right arrangement

The MAN engine is arranged centrally between the axles, a position that offers a number of advantages: short drivelines to the decks, an optimum distribution of the machine weight, placing 47 % on the front axle and 53 % on the rear beam, and all this topped by a low center of gravity. Massive hydraulic pumps send the engine power directly to the wheel motors.



Easy access to all ancillaries

All side panels open conveniently from the ground, offering easy and instant access to all BiG M 500 service points for daily visual checks and regular maintenance.



Cooling system with active dust exhauster

The active radiator cleaning system has proven its excellent efficacy on our BiG X forage harvester for many years. A rotary and fine-mesh screen keeps foreign objects out of the radiator and is cleaned by a powerful suction fan at each revolution and so provides effective cooling at all times.

SafeCut

The EasyCut cutterbar

- Fully welded & heavy-duty
- SafeCut shear-pin protection for each disc
- Satellite driveline smoothes the power flow inside the cutterbar
- Tried and tested in the most difficult conditions

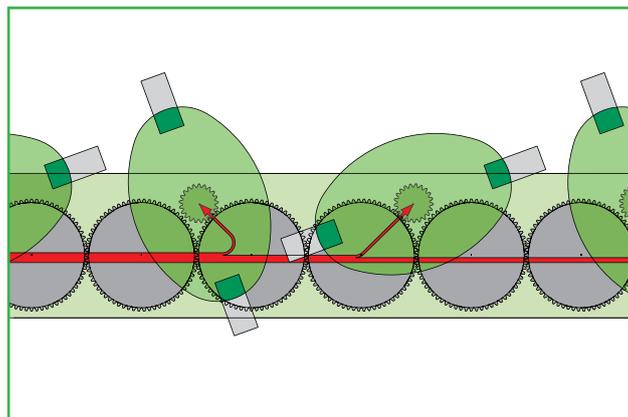


Wide flotation skids

The extremely wide skids on the EasyCut cutterbar minimize the ground pressure and provide excellent protection to the turf and the cutterbar. High-cutting skids are available as optional extra.

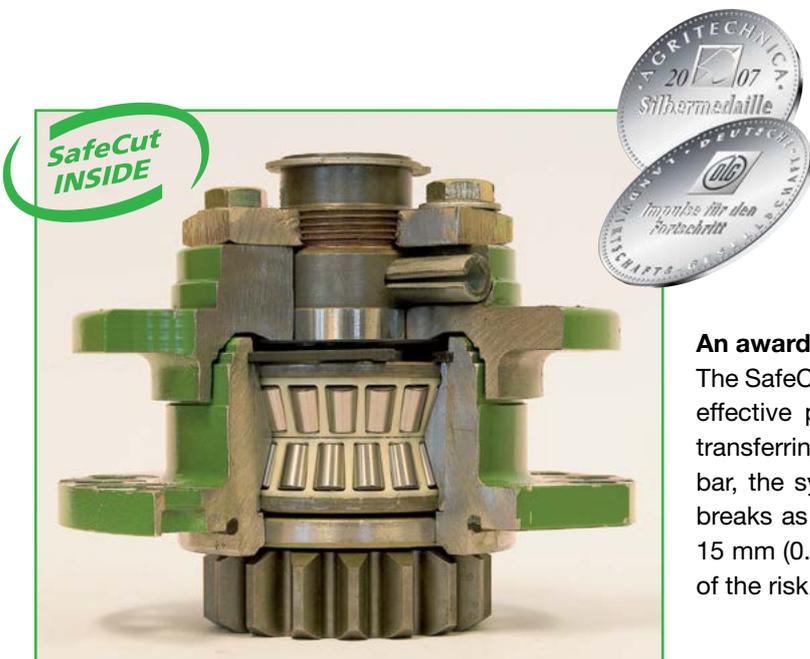
KRONE satellite driveline

Operating at slow speed, the large KRONE spur gears inside the satellite gearbox ensure quiet running and reduced wear. The discs are arranged in a forward position that ensures clean cuts.



Efficiency and safety

The three disc mowers on BiG M 500 are well-proven technology that is sourced from our EasyCut mower range. The fully welded and heavy-duty cutterbar with satellite driveline provides maximum stability while the power flows through the rear gearbox and down massive and quiet-running spur gears that drive the satellite gears and the discs. The discs mount in a very forward position and overlap perfectly for absolutely clean cuts. All BiG M 500 models feature the standard SafeCut impact protection system, which gives the best possible protection when the cutterbar hits a foreign object.



An award winning world-first

The SafeCut disc protection system from KRONE offers effective protection and peace of mind. Rather than transferring the shock load of the impact to the cutterbar, the system transfers the load to a roll pin, which breaks as a result of the impact. Then the disc moves 15 mm (0.6") up on its threaded drive pin and clear out of the risk zone and away from the neighbouring discs.

Standard quick-change blades

All EasyCut cutterbars feature quick-change blades. The operator replaces them within seconds, using the lever supplied but without any tools.

Minimum wear

The blades rotate through full 360° to avoid potential obstacles. Every component on the disc assembly may be replaced separately to minimize repair costs and save your money!





The mowers

13.20 metres (43'4") merge into one single windrow

- Direkt shaft/gear driveline
- Hydraulic suspension on the rear mowers, coil spring suspension on the front mower
- Mowers operate separately or in combination
- Mowing, conditioning, swathing – three operations in one pass



One touch and 3 mowers move into transport position

It takes a few seconds to fold the three mowers on BiG M 500 fold from their 13.20 m (43'4") work width into a compact 3 m (9'10") transport width. Simply at a touch of a button. Of course, each deck also folds separately.



Carefully designed for efficiency

The KRONE BiG M 500 driveline allows operators to achieve work rates of more than 20 hectares (49.4 acres) per hour. After all, short and direct drivelines offer the best efficiency. The power flows from the axially and mid-mounted engine directly to the transfer box, which splits the power and sends it down the shafts and gearboxes to drive the cutterbars. The suspension system of the huge decks that mount in their center of gravity is controlled from the cab.



Height of cut control

The height of cut is set separately on each mower and from the cab-based EasyTouch terminal, which controls hydraulic rams that tilt each deck individually and steplessly. Of course, the settings are stored to the system and retrieved from the joystick.

Direct drivelines

All drivelines on BiG M are shafts and heavy-duty gearboxes. This is the only way to transfer engine power dependably to the mowers and conditioners.



The suspension system

The 5.3 m (17'5") wide and pushed front deck suspends on massive spring packs. The ground pressure of the 4.4 m (14'5") wide rear units is controlled hydraulically to suit conditions.

The conditioner

Optimum treatment from V-shaped steel tines

- Full-width conditioning
- Variable intensity from variable rotor speeds and baffle plate settings
- Powerful gearbox driveline



Heavy-duty gears

A heavy-duty gearbox transfers the power to the cutter-bar and the conditioner. The conditioner offers two selectable speeds (700 rpm and 1000 rpm) to vary the intensity of conditioning.

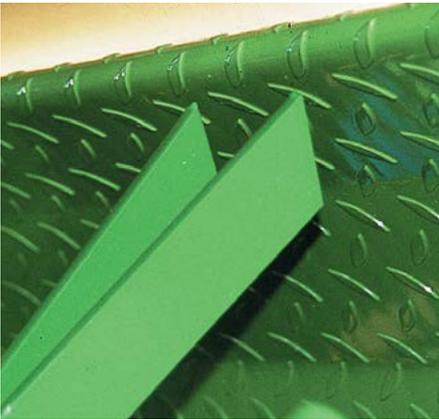


The angle of throw is adjusted without tools

Adjust the conditioning intensity by changing the rotor speed and the clearance between the baffle plate and the V tines. The clearance is steplessly adjusted from a crank on the mower. As you decrease this gap, you increase the intensity of the rotor.

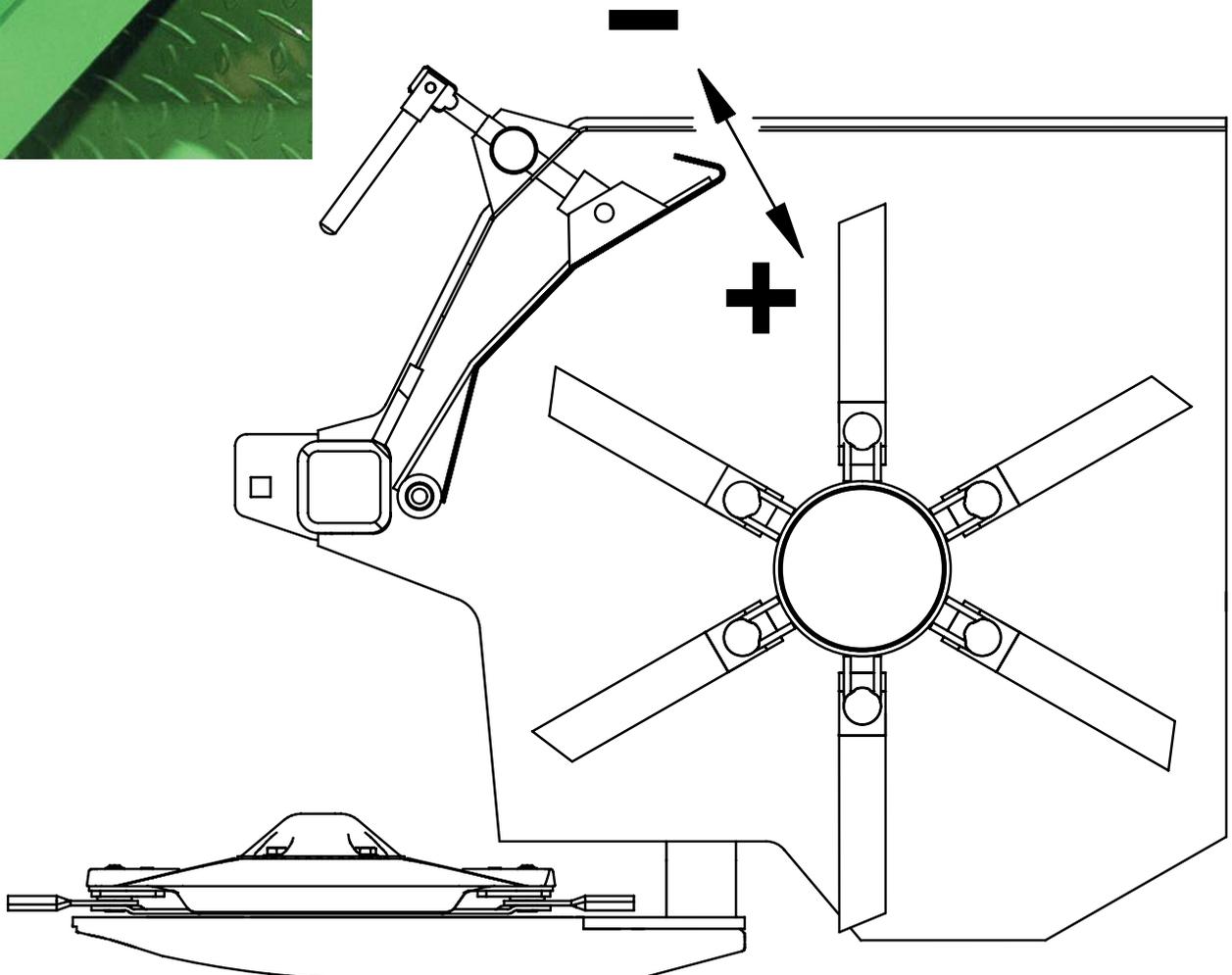
V-shaped steel tine conditioner

Quality is as important as efficiency. To ensure the crop dries rapidly and uniformly, it is good practice to use a conditioner, which rubs off the natural wax skin so the moisture evaporates faster. KRONE specifies BiG M 500 with our well-proven CV conditioner that uses V-shaped steel tines and provides two speeds (700 rpm and 1000 rpm) to deliver best results.



The CV steel conditioner with V-shaped tines

The pivoting V-type steel tines on the 64 cm (2'1") diameter rotor feed the crop past a baffle plate to provide intensive conditioning. Courtesy of the rotor's large diameter, long-haulmed crops and wrapping is not an issue.



Merging swaths

13.20 metres (43'4") merge into one single windrow

- Wide spreading at a touch of a button
- Wide-spreading hoods – with independent control and Memory function
- Crops are merged without dropping to the ground – no contamination



Merging the crop

The massive swath merging augers on BiG M 500 are driven by strong and dependable belts, which feed the crop effectively and quickly to the center of the machine. The auger flights feature readjustable wear plates to significantly boost service life in difficult conditions.

Hydraulic windrowing hoods

The hoods open conveniently and separately from the cab. Upon a touch of a button, the machine spreads the material or transfers it to the middle. In addition to that, BiG M 500 memorizes the current setting and retrieves it after the mowers fold down again.



Standard swath merger

If you aim at harvesting forage of an excellent quality, then you need to watch your timing and quality of work. Losses will be less of an issue if you get the forage to the clamp quickly. Of course, contamination should be avoided as well. BiG M offers you the best tools to achieve these aims: its conditioner with V-shaped steel tines gives intensive treatment and reduces substantially the time required for wilting while the swath merger effectively cuts out the risk of contamination.



Full-width conditioning

Open the auger hoods and the system will spread the material across the full working width. Specified with V-type steel tines and a baffle plate, the full-width conditioner rotor gives optimum treatment and creates a fluffy mat of defibrated crop. The system saves you one tedding pass and gives you higher-quality silage for higher-quality forage.



Independent windrowing

The two augers operate independently to clear the row along the boundary during the cutting pass already and make work easier for the following harvesters. Use only one merger in up and down operation and reduce the 26 m (85'4") work width into slightly more than 16 metres (52'6") to suit subsequent wilting and windrowing with the six-rotor central delivery Swadro 2000 rake from KRONE.

Windrowing

Close the hoods on both mowers and BiG M 500 gathers the crop from the full work width into one single central windrow. The merger allows you to combine three passes into one operation – mowing, conditioning and windrowing. The augers feed the crop to the center without allowing it to drop to the ground, forming very uniform and fluffy windrows. As a result, the following harvesters are able to work faster and finish earlier. Today, central windrowing is becoming more popular as it suits silage and biomass substrate making processes.



Service and maintenance

Regular service and maintenance = maximum dependability

- Easy access to all assemblies
- Automatic lubrication is standard
- 900-litre fuel tank
- Standard quick-change blades



Diesel / liquid urea

The fuel tank splits in two units that offer a combined capacity of 900 litres. The fuel tank and the liquid tank are on the left machine side in an easy-to-get-at position.

Battery / storage compartment

A large storage compartment on the right side also offers room for spare blades and a tool box. The batteries are in easy access adjacent to the storage compartment.



Low on maintenance, high on productivity

A machine well-serviced and maintained is a more dependable machine. Therefore, service & maintenance need to be quick and straightforward so your machine is set and ready for another productive day.



Automatic lubrication

KRONE BiG M 500 features automatic lubrication as a standard machine feature. The system attends to all major grease points except the nipples on the driveshafts. Topping up is easy and fast through a hose from the top.



Hydraulic oil / pump unit

The hydraulic pump and the oil reservoir are arranged at the rear of the machine. A sight glass is provided to check on the oil level.



Engine

The MAN six-cylinder inline engine is hidden beneath the large and wide opening panels. All ancillaries and systems like the air cleaner and dipstick are easily accessible from the left machine side.

Options for your BiG M 500

When you shop for a machine you usually find a long list of options that specify the machine to your requirements and needs. Not so for BiG M 500. BiG M 500 rolls out of the KRONE factory fully equipped and inclusive of all features that make your work as convenient as possible. Here is the list of its standard features:

- Standard swath merger with hydraulic hoods controlled from the cab
- Standard hydraulic height of cut control from the cab
- Standard hydraulic float control on the rear decks, controlled from the terminal
- Standard SilentSpace cab with cab suspension, climate control, cooling box, air seat etc.
- Standard countersteer function to counteract drifting
- Standard ISOBUS auto-steer ready (ISO 11783-3)
- Standard reverse-drive CCTV camera with colour screen
- Standard quick-fit mechanism (optional screw-on blade available as well)
- Standard hydro-pneumatic suspension front axle with independent wheel suspension
- Standard tire size: 800/65 R32 (900/60 R32 option)
- High-cutting skids are options on BiG M 500



Technical Data

BiG M 500 – high-capacity SP mower conditioner

BiG M 500

Engine type		MAN D2676 LE 121
No. of cylinders		6
Displacement	litres	12.4
Max. output to ECE R120 and 1,800 rpm	kW/hp	382/520
Max. output to ECE R24 and 1,800 rpm	kW/hp	371/505
Rated speed	Rpm	1,800
Ground drive		
Model		Infinitely variable via wheel motors
Work rate	up to km/hr	0-20 (12.5 mph)
Transport speed	up to km/hr	0-40 (25 mph)
'4WD' model with selectable axle separation		standard
The running gear		
Four-wheel steering		standard
Crab steering		standard
Standard front-axle suspension		standard
Mowers		
Total work width	mm	13,200 (43'4")
Front mower work width	mm	5,300 (17'5")
Side mower work width	mm	2 x 4,400 (14'5")
No. of discs		6/side mower 4/front mower
No. of top hats		4/side mower 8/front mower
Cutting height adjustment		hydraulic
Blade attachment		Quick-change blades
Conditioner model		V-type steel tines
Conditioner speed	Rpm	700/1,000
Cab		
Air seat		Yes
Passenger seat		Yes
Climatronic with cool box		Yes
In-cab information system		Yes
Cab suspension		Yes
Overall dimensions		
Transport length	mm	10,500 (34'5")
Transport width	mm	2,995 (9'10")
Height	mm	3,995 (13'1")
Tire size		
800/65 R32		standard
900/60 R32		option

Specifications, weights and dimensions given here do not necessarily comply with standard specifications and are therefore not binding.

KRONE Internet



Discover the world at KRONE and browse through our website pages to find facts and figures and also new developments plus a wide range of services. Explore our website and find out how versatile the KRONE world is.



News

Click here to find up-to-the minute information about KRONE – from new product presentations to show reviews. Here you are at the pulse of KRONE life.



Service

Here you find all the service information you require – from a point of contact at the factory to finance schemes for your KRONE machine as well as training schemes for staff and users.



Products

Find extensive information on our full product range. This section holds everything you need – from video clips to manuals.



Download Center

Are you looking for a KRONE calendar for your desktop or a smart picture for your presentation? Here, at the KRONE download center, you will find plenty of useful material for a wide range of projects.



Sales organisation

Here you find a distributor in Japan as well as your local KRONE dealer who will be pleased to support you. This is where you find your KRONE partner who will be pleased to assist you.



Used Machinery

KRONE often has a wide range of demonstration or exhibit machinery on offer. This is a good site to find your KRONE machine. Then contact your local KRONE dealer to arrange the details of a potential purchase.



Jobs

Would you like to join our company? KRONE is often looking for diligent and motivated staff to work at our farm machinery factory as well as at our commercial trailer production plant. So, this section is always worth a visit.



Parts

24/7... This service gives you the opportunity to find your KRONE part at any time and without waiting. The KRONE Agroparts Portal has an article number and exact description for every part. You can order the part instantly at your local KRONE dealer by sending an e-mail to Agroparts.



Media center

The KRONE 'database' holds thousands of documents, pictures, test reports and much more. Here you find very detailed information on KRONE products that are of special interest to you.



KRONE shop

Are you looking for a gift or are you a collector of farm models? Then you should definitely shop around at our KRONE shop. We take your orders at any time of the day.



Events

Are you in for a KRONE live experience? Check out for KRONE events and look at a machine on show or watch it during a demonstration. After all, there is little that is more effective than a hands-on experience.

Your KRONE dealer

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