

PÖTTINGER LION

Power harrows



Find out more online!



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LION

Universal power harrows

working widths 8.2 to 19.7' / 2.50 to 6 metres

The power harrow plays a leading role in the Pöttinger arable farming concept. Best crumbling and excellent mixing of the soil are the highlights of this all-rounder. No other implement can be deployed with such flexibility in ploughed and unploughed fields. Combined with a seed drill these machines offer farmers looking for cost effectiveness an efficient planting solution. Pöttinger offers tailor-made systems for every type of soil and every size of operation.



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LION

Power harrows

The bearing housings are welded into the trough before being milled at the CNC machining centre. This ensures that the spacing between the rotor axes is absolutely constant – guarantees smooth-running and a long service life. Forged components from the Pöttinger hardening centre contribute to many years of reliability. Rugged bearings, computer-optimized wear part shaping and steel components hardened right through are the trademarks of LION power harrows.

LION	Working width	Rotors	Tine thickness	Working depth	For tractors up to
252	8.2' / 2.5 m	8	0.71" / 18 mm	11.02" / 280 mm	132 kW / 180 hp
302	9.8' / 3.0 m	10	0.71" / 18 mm	11.02" / 280 mm	132 kW / 180 hp
302.12	9.8' / 3.0 m	12	0.59" / 15 mm	10.24" / 260 mm	132 kW / 180 hp
402	13.1' / 4.0 m	14	0.71" / 18 mm	11.02" / 280 mm	132 kW / 180 hp
3002	9.8' / 3.0 m	10	0.71" / 18 mm	11.02" / 280 mm	184 kW / 250 hp
4002	13.1' / 4.0 m	14	0.71" / 18 mm	11.02" / 280 mm	184 kW / 250 hp
5000	16.4' / 5.0 m	16	0.71" / 18 mm	11.02" / 280 mm	199 kW / 270 hp
6000	19.7' / 6.0 m	20	0.71" / 18 mm	11.02" / 280 mm	199 kW / 270 hp

All data not binding

The rotor transmission – the heart of the machine

Robust – smooth-running – durable

LION power harrows guarantee extremely smooth running and high stability. These machines operate reliably even in the hardest endurance conditions and heaviest soil. Just take a look at this impressive technology:



- 1.97" / 50 mm rotor shafts on LION 102 series
- 2.36" / 60 mm rotor shafts on LION 1002 series
- Strong rotor shafts with wide bearing spacing ensure durability.
- Bearings and gears run submerged in semi liquid grease.
- Labyrinth seal
- The tines are 0.71" / 18 mm thick and can be used on both sides.
- 0.59" / 15 mm thick tines on LION 302.12 series
- Quick-fix rapid change tines available as option.



An extended service life is only possible thanks to precision machining and positive connections. At Pöttinger this level of high quality goes without saying.

LION

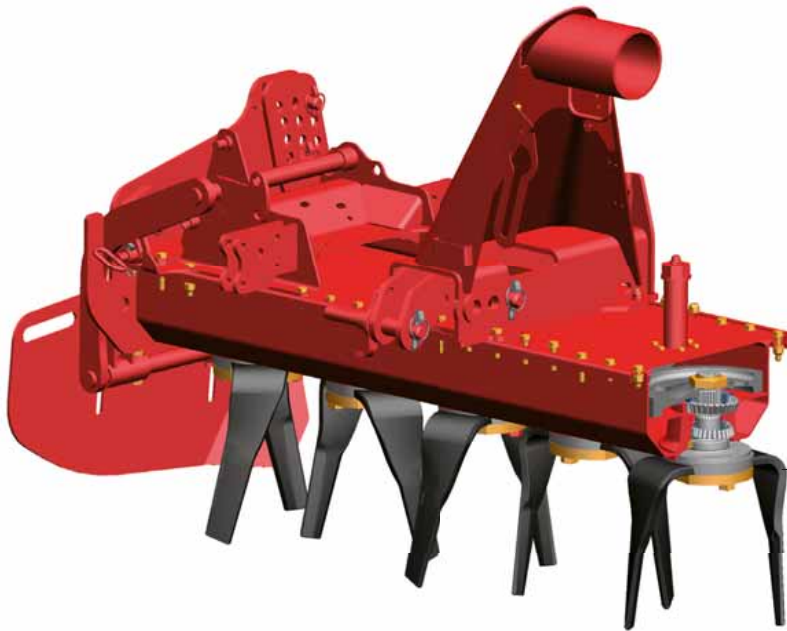
Precision in every detail

Gear trough and tine mountings

- The high-strength deep gear trough provides the gearbox with excellent stability. Large toothed wheels, 1.97 or 2.36" / 50 or 60 mm thick rotor shafts with heavy-duty tapered roller bearings and wide bearing spacing ensure a long service life.
- The deep gear trough is formed from a single piece. The welded central gusset provides maximum stability. The bearing housings are welded into the box section with the central gusset before being milled on the CNC machining centre. This sequence ensures exact axle spacing between each rotor; the guarantee for extremely smooth operation and durability.



Maximum stability



- The forged, full-length tine carriers are integrated into casing. This offers best protection against wrapping because the tines work the soil away from the gear trough. Stones cannot become trapped between the rotors.



- The bearings and gears run in grease, with the robust gears being made of tempered steel. The lower bearing is located in the zinc bearing carrier – offering excellent bearing support and reducing wear.
- Ultra-secure rotor seals ensure no loss of grease and assist in stopping soil from penetrating.

Completely tight seal on underside

1.97 or 2.36" / 50 or 60 mm thick rotor shafts and oversized tapered roller bearings

High quality long-life lubrication with high viscosity semi liquid grease





Tines hardened right through

The tines are the critical interface to the seedbed. Penetration of the ground is optimised for uniform crumbling.

- LION power harrow tines are swept inwards and angled to the rear. As a result the soil near the surface is loosened and crumbled intensively. Larger clods remain lower down.
- A shape of tine designed for standard drilling, mulch drilling and direct mulch drilling.
- The 0.71 x 12.6" / 18 x 320 mm thick tines are made from hardened boron steel and are heat treated right through the whole cross-section.
- The LION 302.12 features tines with a thickness of 0.59 x 11.81" / 15 x 300 mm.
- Both tines are seated securely in the recesses on the tine carrier. Two alignment pins keep the tines centred. They are secured using a clamping plate.
- Only two bolts are needed on each rotor. These can be loosened without chocking the rotor.



Universal tines for every operation

Quick-fix tines

A rapid and reliable solution available as an option

1. Remove lynch pin and lock pin
2. Remove tines
3. Fit new tines
4. Re-fit lock and lynch pins – finished!



The pin and lynch pin are well protected from dirt.

- Pöttinger has developed universal tines for every application.
- The tines can be implemented aggressively pointing forwards, or can be trailed.
- Angled forwards the tine breaks up the soil from underneath, only distributing harvest trash on the surface.
- Finer earth is concentrated at the level of the seed. Larger clods and harvest residues remain on the surface to protect against erosion.

*Tines in aggressive position –
the ground is broken up*

*Tines in trailing position –
for good crumbling effect at seed
level*





LION for the toughest conditions

LION power harrows combine the very best in strength with extremely smooth operation. They are designed for the toughest endurance in heavy soil conditions. These power harrows operate reliably in all conditions.

Heavy-duty mounting and transmission

- The gearbox is fitted with interchangeable gears, features cooling fins and is designed for up to 130 kW / 180 hp on the LION 102 series and 184 kW / 250 hp on the LION 1002 series. The low PTO angle thanks to the gearbox input shaft being located further to the rear contributes to smoother operation. The PTO shaft is equipped with a cam-type clutch.
- Rotor speeds between 185 and 527 rpm are possible. A PTO through shaft is also available as an option.
- The headstock has widely-spaced supports. Double-sided Category 2 and 3 floating lower links and three adjustable positions are designed to bring the power harrow as close as possible to the tractor.
- On the LION 402 and 4002 the headstock features additional side supports.



Technology at the highest level

Professional equipment

- Optional spring-mounted side plates prevent ridges forming (parallel linkage optional) These are simply raised during transport
- **Unique system:** The spring does not need to be disengaged (standard on LION 3002 and 4002).
- The side defectors are mounted on slotted holes for adjustment.
- The front levelling board (optional) is identical to the rear board.
- The bout markers can be fitted to either the power harrow or the seed drill.
- The rear levelling board is supplied as standard and its height-adjusted automatically by the rear roller – no manual adjustment required. A consistent distance from the tines over the full working depth thanks to linear guides on frame. Initial depth is set using pin and hole adjustment – easily accessible at each end of the harrow.



Field-proven rollers

- The scraper bar is adjusted centrally and each scraper can also be adjusted individually.
- The scraper bar is fixed to the rear roller frame. The roller and scraper bar forming one unit, allowing close mounting of a seed drill. This mounting of the scraper bar allows for close coupling.



LION drill mounting configurations

Reducing costs is a top priority in arable farming. Save money with a power harrow/seed drill combination.

Hydrolift

- Hydraulic hitch for seed drills with height and reach-adjustable linkage.
- Two hydraulic cylinders ensure maximum lifting capacity up to 5290 lbs / 2.4 t for fully laden seed drills.
- Optional lift limiter available.

Cost-effective mechanical mounting systems without hydrolift are also available.



High output drill combinations

Piggy-back systems

With A-frame or three point mounting with mechanical top link

- VITASEM and AEROSEM seed drills from Pöttinger can easily be fitted.
- The centre of gravity is in front of the rear roller – very close to the tractor. The additional weight of the seed drill on the roller provides even better consolidating effect for the seed-bed. The gap between the coulters and the rear roller is minimised to form a compact unit.



A-frame mounting for pneumatic seed drills.

Piggy-back three point mounting with hydraulic top link.

- A hydraulic cylinder is also available to pivot the seed drill up over the power harrow.
- Improves centre of gravity in relation to tractor.
- High ground clearance for coulters.
- Power harrow can be used on its own (to level plough furrows, for example).





LION 252 / 302 / 402

The series for tractors up to 132 kW / 180 hp

These robust and cost-effective power harrows with working widths between 2.5 and 4 metres are suitable for farmers with high expectations in terms of quality, smooth operation and durability.

Power harrows with professional technology

- The headstock has a wide base and features additional side struts on the LION 402.
- The double-sided Category 2 and 3 floating lower links and three adjustable positions are designed to bring the power harrow as close as possible to the tractor.
- Cooling fins on the gearbox ensure constant heat dissipation. Optimised PTO shaft routing thanks to the gearbox input shaft being located further to the rear ensures the smoothest running.
- The PTO shaft is equipped with a cam-type clutch.
- Rotor speeds between 185 and 527 rpm can be selected depending on the PTO speed and the use of interchangeable gears (optional).
- LION 252 / 302 / 402 – 0.71" / 18 mm thick tines are ideal for a working depth of up to 11.0" / 280 mm.

Even preciser results

Pöttinger always takes customers' requirements into consideration when developing new machines. With the specialist LION 302.12 Pöttinger adds a 12-rotor harrow with a working width of 9.8' / 3 metres to the 102 series.

LION 302.12 The new 12-rotor machine



Best crumbling effect even in the most difficult conditions

- This power harrow guarantees best results on heavy clay soils.
- It is the ideal choice for potato and vegetable farms.
- The rotor speed is 15 percent lower than on 10-rotor machines but a very fine soil structure is still achieved. This also means a lower-power tractor can be used.
- Thanks to the the gearbox being fitted with interchangeable gears the rotor speed can be adjusted to suit any soil conditions and PTO shaft rpm.
- The transmission on the LION 302.12 is designed for tractors up to 180 hp.
- The LION 302.12 universal 0.59 x 11.81" / 15 x 300 mm tines are designed for a working depth up to 10.24" / 260 mm.
- The fully hardened tines ensure a long service life.





LION 3002 / 4002

Proven performance up to 184 kW / 250 hp

The professional machines with working widths of 3 and 4 m. Proven technology for all soil conditions. You can rely on this LION in the most demanding situations.

Sturdy gear trough and engineered tine mountings

The high-strength deep gear trough provides the gearbox with absolute stability. Large toothed gear wheels, 60 mm thick rotor shafts with heavy-duty tapered roller bearings and wide bearing spacing ensure a long service life.

Tough from the ground up

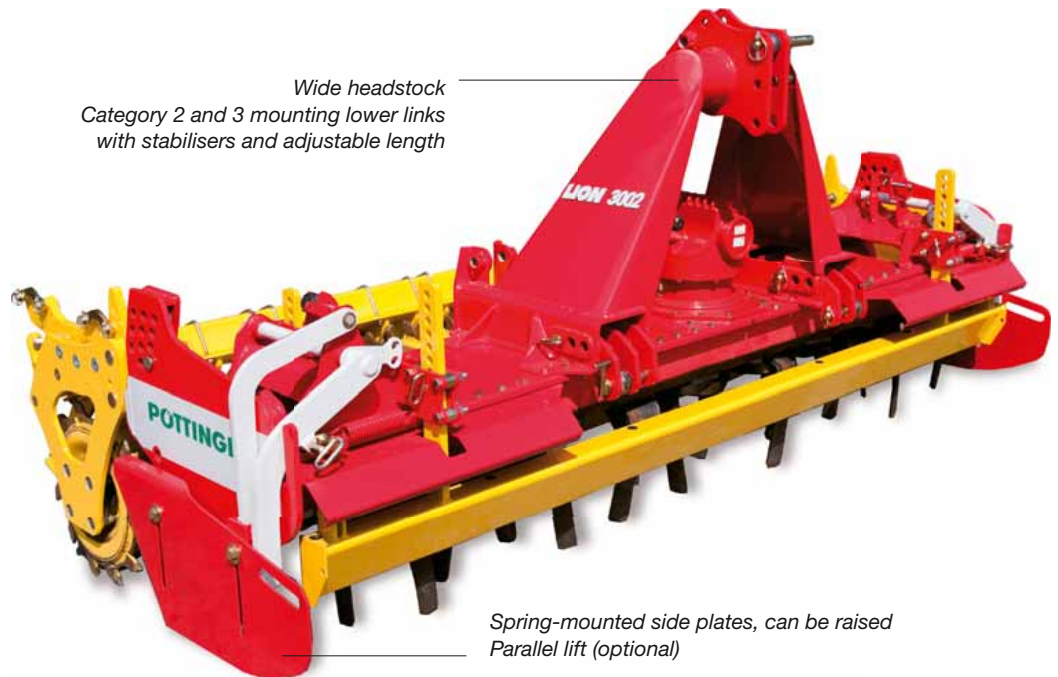
The deep gear trough is formed from a single piece. The welded central gusset provides additional stability. The bearing housings are welded into the box section with the central gusset before being milled on the CNC machining centre. This sequence ensures exact stub shaft spacing between each rotor; the guarantee for extremely smooth operation and durability.



Deep gear trough formed from a single piece with welded central gusset

For the toughest operating conditions

Setting up for different soil conditions has to be quick and uncomplicated in this power class. Well-thought-out details make adjustments more straightforward.



Wide headstock
Category 2 and 3 mounting lower links
with stabilisers and adjustable length

Spring-mounted side plates, can be raised
Parallel lift (optional)

Power harrow technology for the highest power class

- Robust wide headstock – with additional side struts on LION 4002.
- Double-sided Category 2 and 3 floating lower linkage with integrated oscillation and 3-fold adjustment are designed to match every tractor.
- The side plates are spring-mounted and can be raised – parallel guidance optional.
- The gearbox is fitted with interchangeable gears and cooling fins for constant heat dissipation. A cam-type clutch is integrated into the PTO shaft to protect the transmission. A rear PTO through shaft also available.



Hydrolift (optional)

- The large-dimensioned, heat-treated precision machined gears are submerged in grease. 60 mm thick rotor shafts with tapered roller bearings ensure durability. A labyrinth seal guarantees absolute tightness of the gear trough.
- The forged, full-length tine carriers are integrated into casing. This offers best protection against wrapping because the tines work the soil away from the gear pan. Stones cannot become trapped between the rotors.
- The rear levelling board is supplied as standard and is height-adjusted automatically by the rear roller – no manual adjustment required.
- Heat-treated tines 0.71" / 18 mm thick for a working depth up to 11.0" / 280 mm.
- Four different types of rear roller for different types of soil.



These power harrows with working widths of 16.4 and 19.7' / 5 and 6 m can be folded up for road transport for a transport width of just 18.9' / 2.7 m.

LION 5000 / 6000

Up to 199 kW / 270 hp – folding

Power harrows for high output

- Cat. 3 Linkage.
- Two individual extremely twist-resistant harrow units are mounted in the robust folding frame.
- Side drive shafts with cam-type clutch P 500 Powerline with extended lubrication intervals. Main PTO shaft P 600 Powerline.
- 3-speed lever change gearbox for best possible power transfer, rear PTO through shaft as standard equipment.
- Heat treated machined gears run submerged in grease. Low-noise and durable quality.
- Large dimensioned tapered roller bearings in single-piece bearing housings.
- Heat-treated tines 0.71" / 18 mm thick for a working depth up to 11.0" / 280 mm.
- The rear levelling boards are adjustable vertically and horizontally.



Transport position

- Two large hydraulic cylinders fold each half of the power harrow through 90° for a transport width of just 18.9' / 2.7 metres.
- Thanks to the compact design the centre of gravity is close to the tractor.





The right roller for all soil types

Type	Ground moisture			Soil characteristics		
	dry	medium	damp	light	medium	heavy
Bar cage roller 16.5, 21.3" / 420, 540 mm	■	■		■	■	■
Toothed packer roller 16.5, 19.7, 21.7" / 420, 500, 550 mm	■	■	■	■	■	■
Crumbling packer roller 20.7" / 525 mm	■	■		■	■	■
Pack ring roller 21.7" / 550 mm	■	■	■	■	■	■

All data not binding

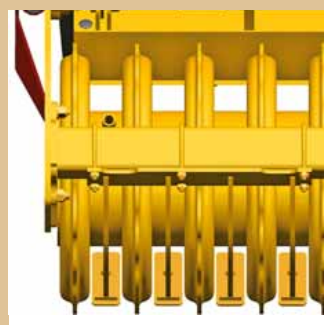
Weight of rollers

Roller	8.2' / 2.5 m	9.8' / 3 m	13.1' / 4.0 m	16.4' / 5.0 m	19.7' / 6.0 m
Bar cage roller 16.5" / 420 mm	326 lbs / 148 kg	430 lbs / 195 kg			
Bar cage roller 21.3" / 540 mm		716 lbs / 325 kg	716 lbs / 325 kg		1433 lbs / 650 kg
Toothed packing roller 16.5" / 420 mm	650 lbs / 295 kg	805 lbs / 365 kg			
Toothed packing roller 19.7" / 500 mm	864 lbs / 392 kg	1157 lbs / 525 kg	1314 lbs / 596 kg	1728 lbs / 784 kg	2028 lbs / 920 kg
Toothed packing roller 21.7" / 550 mm		1206 lbs / 547 kg	1510 lbs / 685 kg		2328 lbs / 1056 kg
Packer roller 20.7" / 525 mm		1146 lbs / 520 kg	1587 lbs / 720 kg		
Pack ring roller 21.7" / 550 mm	1087 lbs / 493 kg	1213 lbs / 550 kg	1653 lbs / 750 kg		2425 lbs / 1100 kg

All data not binding



Toothed packer roller
The scrapers can be adjusted centrally and individually. They can simply be pivoted away for cleaning. The hardened scraper plates are reversible for double the service life.

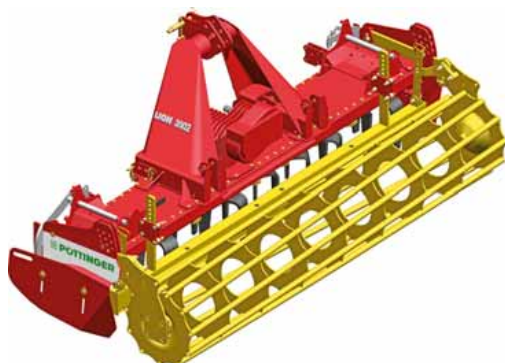


Pack ring roller
Due to the small hub diameter, the scrapers do not need to contact the rims or be adjusted.

Rear rollers – it's your choice

Not all soil is the same.

Pöttinger offers a wide range of rear rollers for perfect results with the desired seedbed structure for every type of soil. The whole range of rollers features precision manufacturing and robust design engineering.



Bar cage roller

The ideal roller for working on dry, non-sticking soil. The roller is equipped with eight strong bars to provide the best packing effect. diameter 16.5" / 420 mm, 8 bars, diameter 21.3" / 540 mm, 11 bars.



Toothed packer roller

This roller is suitable for all types of soil. The roller leaves behind an optimum, compressed seedbed with loose, fine earth at seed level. The scrapers are located just above surface level. That is why no earth clods can be lifted away, even in wet conditions, and optimum capillary structure remains intact for optimum germination.

Roller diameter: 16.5, 19.7 and 21.7" / 420, 500 and 550 mm.

The teeth are hardened right through. Case-hardened scrapers also available.



Crumbling packer roller

The teeth are arranged at an angle to the left and right. This roller is especially suitable for heavy, clay soils. The result is a deep packing effect with loose crumbling effect just under the surface. Scrapers prevent soil sticking to the roller. Diameter 20.7" / 525 mm.



Pack ring roller

The packer rings are closed on either side and have a diameter of 21.7" / 550 mm with 8 rings per metre of working width. The roller produces a corrugated consolidation effect to promote water absorption and allow the soil to breathe. Ideal for stony, damp conditions and heavy organic residues. Harvest trash remains on the soil surface and protects the soil from drying out.

Technical data

	Linkage Category	Working width	Transport width	Rotors	Working depth
102 series – robust and cost-effective power harrows					
LION 252	Cat. 2 and 3	8.20' / 2.5 m	8.20' / 2.5 m	8	11.02" / 280 mm
LION 302	Cat. 2 and 3	9.84' / 3.0 m	9.84' / 3.0 m	10	11.02" / 280 mm
LION 302.12	Cat. 2 and 3	9.84' / 3.0 m	9.84' / 3.0 m	12	10.24" / 260 mm
LION 402	Cat. 2 and 3	13.12' / 4.0 m	13.12' / 4.0 m	14	11.02" / 280 mm
1002 series – professional class for the toughest demands					
LION 3002	Cat. 2 and 3	9.84' / 3.0 m	9.84' / 3.0 m	10	11.02" / 280 mm
LION 4002	Cat. 2 and 3	13.12' / 4.0 m	13.12' / 4.0 m	14	11.02" / 280 mm
1000 series – machines for high outputs					
LION 5000	Cat. 3	16.40' / 5.0 m	8.86' / 2.7 m	16	11.02" / 280 mm
LION 6000	Cat. 3	19.69' / 6.0 m	8.86' / 2.7 m	20	11.02" / 280 mm

Equipment

	Quick-change tines	Front levelling board	Side plates spring-mounted	Side plates parallel-guided	Hydrolift for mounted seed drills
LION 252 / 302 / 302.12 / 402	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LION 3002 / 4002	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LION 5000 / 6000	<input type="checkbox"/>		<input type="checkbox"/>		

■ = Standard, □ = Option







Additional equipment



Track eradicators for all LION power harrows
 At Pöttinger these are spring-mounted to protect against stones and foreign objects. The working depth can be adjusted without using any tools.

Tine thickness	Tine length	Recommended PTO speed	For tractors up to	Weight without roller
0.71" / 18 mm	12.60" / 320 mm	1,000 rpm	132 kW / 180 hp	1808 lbs / 820 kg
0.71" / 18 mm	12.60" / 320 mm	1,000 rpm	132 kW / 180 hp	2249 lbs / 1,020 kg
0.59" / 15 mm	11.81" / 300 mm	1,000 rpm	132 kW / 180 hp	2403 lbs / 1,090 kg
0.71" / 18 mm	12.60" / 320 mm	1,000 rpm	132 kW / 180 hp	2821 lbs / 1,280 kg
0.71" / 18 mm	12.60" / 320 mm	1,000 rpm	184 kW / 250 hp	2394 lbs / 1,086 kg
0.71" / 18 mm	12.60" / 320 mm	1,000 rpm	184 kW / 250 hp	3131 lbs / 1,420 kg
0.71" / 18 mm	12.60" / 320 mm	1,000 rpm	199 kW / 270 hp	4608 lbs / 2,090 kg
0.71" / 18 mm	12.60" / 320 mm	1,000 rpm	199 kW / 270 hp	4998 lbs / 2,267 kg

All data for information only, equipment may vary from country to country.

Mountings for piggy-back seed drills	A-Frame mounting for piggy-back seed drills	Rear PTO through shaft	Bout markers	Mechanical drill linkage	Warning signs Lighting
					
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More equipment options

- PTO shaft 1 3/4" 6-spline
- PTO shaft 1 3/8" 21-spline
- Height limiter for hydrolift

All data for information only, equipment may vary from country to country.



Supreme service

You can rely on us.

Wherever they are in the world, our customers can rely on a fully developed network of sales and service partners. This close proximity to the customer guarantees fast delivery of spare parts and also ensures professional machine set-up and handover by qualified specialists. We are on hand wherever you happen to be.

Our range of professional services:

- Original Inside parts. 24-hour ordering service online.
- Long-term stock of spare parts.
- Expertise through regular training – For professional personnel.
- and much more...

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