

SE 140

1-row, offset trailed potato harvester with
4 ton bunker and 75 or 85 cm intake width



Compact. Agile. Powerful: the new SE 140

"There is nothing that cannot be improved!" – This is the motto for the development of the new 1-row SE 140. Today, the Grimme SE-model range is the top-selling offset trailed potato harvesters in the world. Worldwide, more than 10,000 machines are in use and represents high performance and gentle harvesting – made

by Grimme. What it is that characterises the new SE 140 with its 4 ton moving floor bunker? Innovation in series. For instance, the compact design facilitates narrow turning manoeuvres. The ergonomic, even flatter picking table offers two standing heights and ample space for up to 6 persons. Guarantee for the increased performance

compared to the previous model is the 12 % larger web surface on the 1st main web and the 8 % larger web surface on the 2nd main web. An additional 13 % of sieving performance is available with the main web channel that can be optionally widened from 75 to 85 cm. Harvesting success – all the way across!





Index

Overview of the intake unit	4
Simple sorting and picking	5
Improved performance – sieving aids, haulm separation and separator	6–9
Moving floor bunker for gentle unloading	10–11
Drives, drawbars, machine operation	12–13
Technical data	14

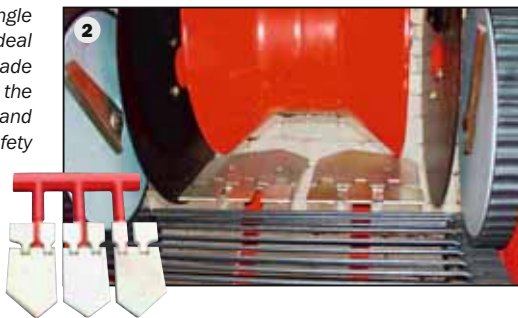
INTAKE

Strong performance: tuned to harvest protection from the very beginning

From the practice for the practice: the offset intake on the right-hand driver's side ensures simple handling of the machine (1). The pulled intake unit with large, spring-loaded disc coulters and haulm feed-in rollers allows smooth digging with intake widths (disc coulters spacing) of 540, 580, 620, and 660 mm. The optional ridge relief reduces the ridge pressure, preventing unnecessary harvesting conditions such as clod formation.



Well taken in: adjust the stop angle of the share blades to an ideal digging depth and use the 3-blade share for heavy soil, and the 2-blade share for medium and light soil (2). For additional safety reasons, protect the share blades with the optional stone protection.



Ideal for tall haulm: the optional 2nd disc coulters (3)



The golden middle: profit from the automatic ridge centering function (option) (4). The drawbar is hydraulically controlled via two sensors attached to the diablo roller.



Simple solution: Adjust the digging depth via the adjustment spindle (5)...



...or, as an option, hydraulically and infinitely (6) from the seat in the tractor.



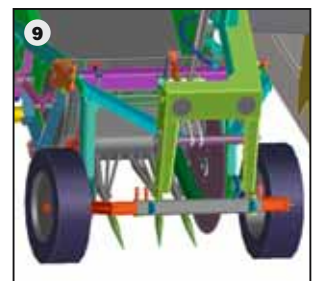
Simply good three times: the optional vegetable intakes for onions, red beets or carrots (7-9)



Windrow intake with share blades: consisting of support wheels, hydraulic depth adjustment and adjustable brush web speed especially suited for very light soil types.



Windrow-intake via rotor shaft: consisting of rotor shaft for minimum soil intake, support wheels, hydraulic depth adjustment as well as adjustable brush web speed.



Carrot intake: large dimension distance-adjustable support wheels, mechanical depth adjustment and one or two carrot share. Adjust to the desired row width and spacing.

Ensure great results and the very best harvest quality!



4 grading rollers (1) reliably separate smaller sizes. The roller spacing between 0 and 40 mm can be infinitely adjusted via a central control. A roller speed increasing with the direction of flow protects the crop.

Available as an option: the small hopper for small potatoes, for discharge at the headland or designated part of the field (2)



Picking table with almost totally even surface: Up to 6 persons can work on the picking web (3) with the practical trash web (5). The hydraulic drive with its infinitely speed adjustment (option) allows adjustment to the desired inspection process. The picking personnel can transmit a warning signal to the cabin by the push of a button. Two easy-picking chutes are available as an option.

Stone box with cross conveyor (option) (4) with a load capacity of approx. 600 kg. The filling takes place via the easy-picking chutes. Hydraulic emptying can be controlled from the tractor cab.



The optional stone box (6) has a capacity of approx. 500 kg. The filling process takes place via favourably positioned easy pick chutes; the emptying takes place manually via a foot pedal at the picking stand. Hydraulic emptying from the tractor cab is available as an option.



Minimal drop steps when filling the moving floor bunker (7/8) by means of the hydraulic lifting and lowering of the final conveyor web. Profit from the final conveyor web automatic (option): If the drop height into the bunker increases, the final conveyor web automatically lifts in small steps to achieve an even low drop.

As only individual solutions are id solutions: your Grimme options!

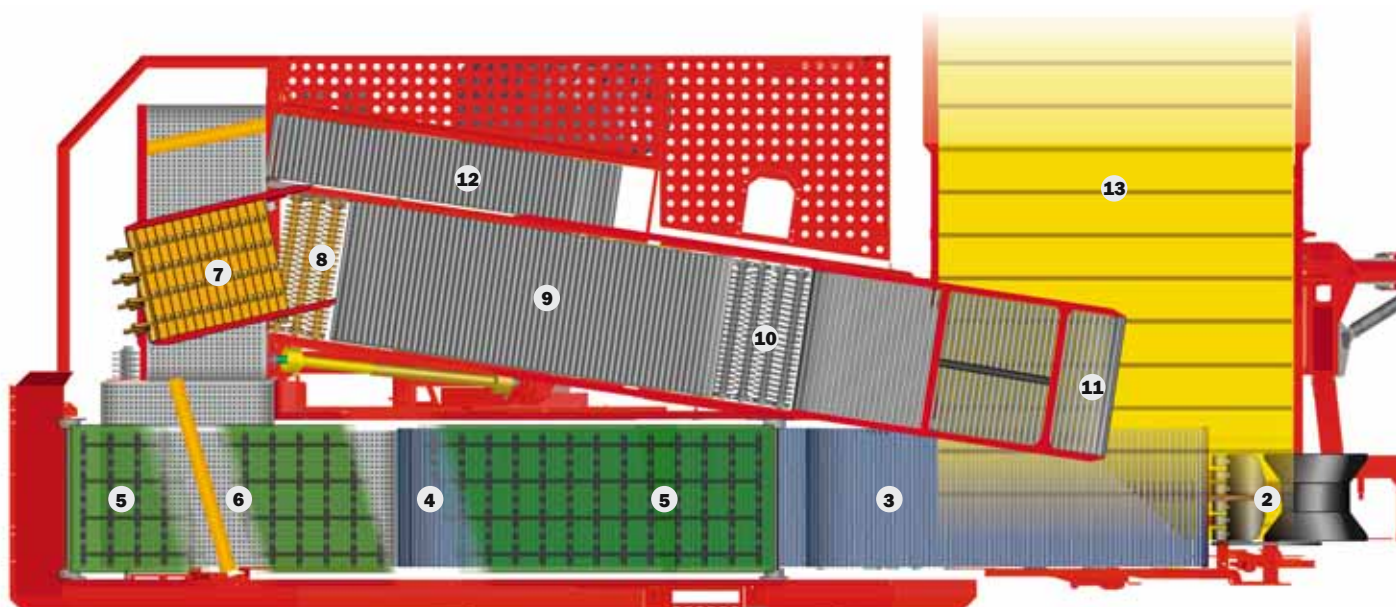
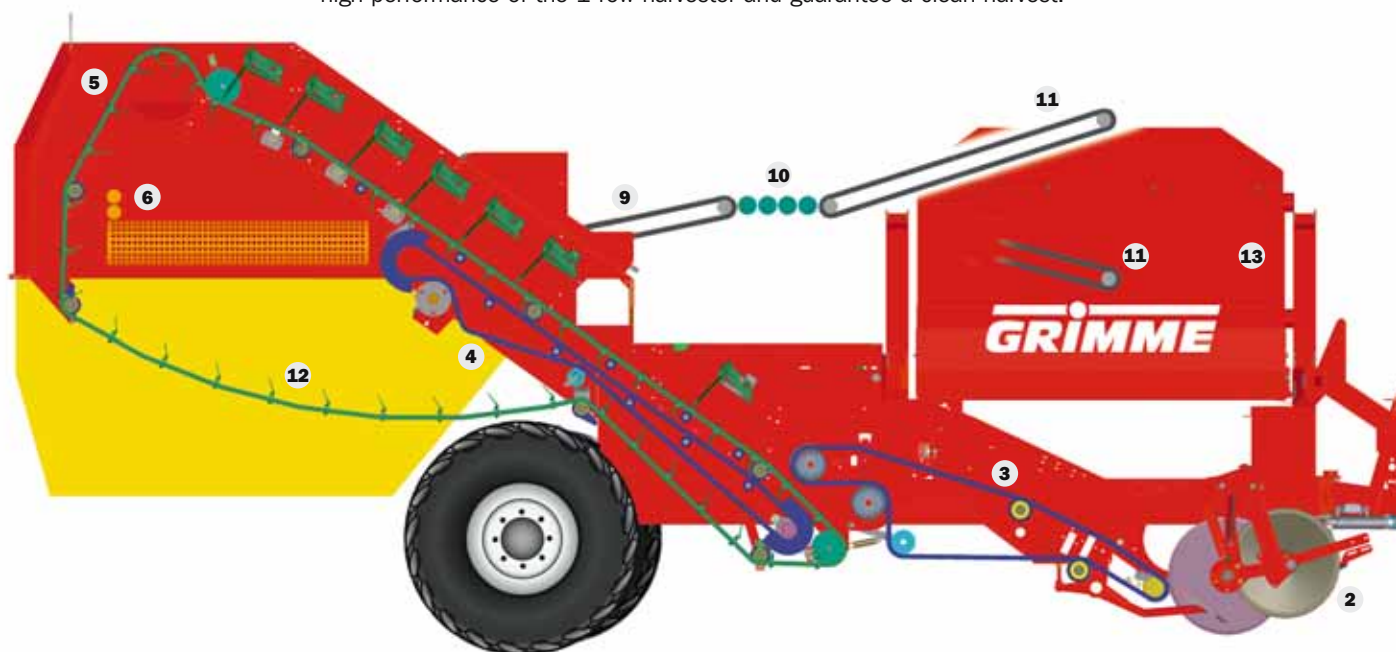
Harvesting conditions change from campaign to campaign: different weather conditions, different soils, a multitude of potato varieties

and many, many other factors. – Now, how can the optimum result be achieved every time? With the Grimme options for the

SE 140, various setting and options for the adaption of the harvester to these varying harvesting.

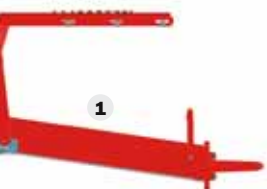
Well-conceived from the front to the rear

Grimme has always paid much attention to high performance, durability as well as the gentle handling of the crop. – And this applies to all working stages, as every transfer location or drop is a critical position. Or, rather: used to be a critical position. I.e., the drop steps from the 1st to the 2nd main web as well as to the 1st separator have been decreased even more to better protect the crop. In addition to this, the large dimensions of the separators are adapted to the high performance of the 1-row harvester and guarantee a clean harvest.





Minimum drop stages, gentlest crop handling: thanks to the reduction of the drop size from the 1st to the 2nd main web (1). This is made possible by an almost horizontal feed. The very small drop from the 2nd main web onto the 1st separator (2) is gentle on the crop. – Like the web bars, which in addition clean the walls of the side panels.



- 1 Drawbar
- 2 Intake unit
- 3 1st short main web
- 4 2nd main web
- 5 Deviner web
- 6 1st separator
- 7 2nd separator

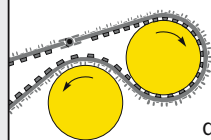


- 8 Pre-grading unit (option)
- 9 Picking web
- 10 4 grading rollers (option)
- 11 Articulating final conveyor elevator
- 12 Trash web
- 13 Moving floor bunker

SIEVING AIDS

Take important things and leave unimportant things behind – the sieving aids

1st and 2nd main web (rubber roller drive)

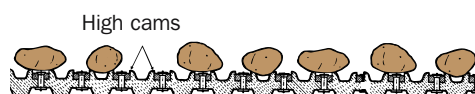


The main webs convince with their quiet even running, as well as being durable they are long lasting due to the specially rubber-coated drive rollers. The drive underneath the bars is part of the standard equipment. Staggered bars (option) improve the soil migration on light soils and prevent a roll back on slopes – the drive will then be below the belts.



Patent High cam side belts

Complete potato protection by high cam side belts: the especially gentle and non-damaging conveying. The crop are practically carried on hands and do not come into contact with metal parts.



Mechanical rotor agitator

For even more sieving performance on the 1st main web: Depending on the digging conditions, the effect of the mechanical rotor agitator can be adjusted. Effective control: the hydraulic control via the operating terminal.



Oscillating unit (option)

Effective loosening by means of the oscillating unit: Hydraulically driven shaker arms perform elliptical movements and loosen the ridge effectively.



Triangular rollers in the main channel (option)

To increase the sieving performance even more, attachable triangular rollers can be fitted (option). The stainless steel plates in the swing frame (option) are ideal sticky soils and more gentle harvest handling by decreased friction. Height-adjustable support rollers allow an adjustment of the main web incline, which improves the sieving process even more.



Original Grimme Know-how: the multi-function web. More screening. More separating. More conveying.

Patent Patented multi-function web

Sieving, separating, conveying: three functions in one work procedure – thanks to the multi-function web. The crop flow reaches the 2nd main web from the 1st main web gently via a minimal drop. Then, the crop is conveyed upwards in pockets.

Sieving

The 2nd main web effectively and gently separates soil, clods and stones; then, the crops conveyed to the separator.

Separation

The haulm web, which runs closely above the 2nd main web, separates the large haulms from the crop flow and deposits them back on the ground. Up to 3 scraper shafts can support this separation process. A safety mechanism via the slip clutch is part of the standard equipment. The spring mechanism of the scraper combs ensures long durability; one additional scraper comb can be supplied as an option.

Conveying

The compartment pockets which are gentle on the crop are created by the combination of the 2nd main web and the haulm web. They convey the potatoes in "portions" onto the 1st separator. This brings calmness into the crop flow and therefore prevents conveying-related tuber damage.



Optimised harvest protection: deviner web with soft PU deflectors (210 or 280 mm distance)



Manually adjustable: the 6 back-holding combs (3 each on top and 3 on the bottom) on the haulm web

Sieving



Separating



Conveying



Effective trash separation and gentle crop flow – all in one

Double scraper roller

The effective separation of remaining haulm and smaller trash is done via the double scraper roller and the hedgehog web, which is available with different pitches. In order to achieve an optimal setting for the crop, the double scraper roller can be adjusted by the Bowden cable height from the picking station. A hydraulic height adjustment can be obtained as an option. For the quick adaptation to changing soil conditions, the hedgehog web and the double scraper roller are infinitely adjusted via the optional hydraulic drive. Ideal for inclines, the stepless levelling function (option) can optimise the separation of trash and crop.



Who separates properly now will have an easier job at the picking table!

Type UB – for cloddy soil with few stones

The hedgehog web is available as a plate web for light to medium soil as well as a bar web for heavy soils. The hydraulic drive (option) and the electric levelling (option) give endless adjustment to the harvest and soil conditions. Especially on slopes, the automatic levelling device of the separator (option) pays for itself.



The speed of the finger web is infinitely hydraulically adjusted.

Type SB – for stony soils

Hedgehog web with manual drive is standard. Optimise the adjustment possibilities to different soils by a hydraulically driven hedgehog web (option). Stones and misrouted potatoes are guided directly onto an extended thrash web.



Type SB: for stony soils

Pre-grading unit (option)

Small clods, stones, haulm as well as small sized potatoes are reliably separated via the 3 or 5 roller pre-grading unit. The roller spacing between 0 and 40 mm can be infinitely adjusted via a central control. The rollers sloping in the flow direction aid the final emptying.



Profitable option: the 3 roller pre-grading



Even more effective: the 5 roller pre-grading

Small hopper under the pre-grading unit (option)

The small hopper with a capacity of approx. 200 kg is emptied mechanically.



Small hopper under the pre-grading unit (option)

MOVING FLOOR BUNKER

Large holding capacity with much know-how included

Gentle and quick emptying: the moving floor bunker (1) with an unloading height of 4.20 m. The hydraulic discharge as well as the steering suspension ensures almost uniform emptying at different discharge heights.

Unloading with minimal drops: as an option the moving floor bunker is available with a bunker end lowering unit (2).

For all those with big plans: the large bunker (3) can hold up to 4,000 kg and can be operated for unloading easily with the push of a button.

Well-designed: the interior motor position of the moving floor bunker (4) not only functions reliably – it is also protected from damage.

More in it for the owner: increase the output of the machine with the bunker capacity of approx. 300 kg more – up to 4,000 kg – by means of the fill optimisation (option) and automatic filling (option), which alleviates manual operation (5).

Profit all the way: optimal harvest protection by means of soft bunker floor, short unloading times thanks to the floor design, hydraulic drive with 2 speed settings for a slow forward movement of the bunker floor during the filling process and a faster bunker emptying speed (option) provides a quick and complete emptying of the bunker.





Gentle trailer filling: with bunker end rubber baffle (option) (6)

As needed: bunker end rubber baffle manual folded in and out (7)



Works efficiently: the hydraulic folding unit (option) (8) for the rubber baffle allows the option to gently unload but maximise the filling of very high transport vehicles as the baffle can be repositioned when the loading is nearly complete.

Ideal for bagging: the bagging unit (option) (9)



Filling in great style: the BIG BAG-filling unit (option) (10)

Shiny option for improved harvest protection: the moving floor bunker with stainless steel deflector (11) helps to avoid hard sticky and crusty soil build up in wet conditions.



4 grading rollers (option) (12) separate the desired small sizes and transfer those into the separate bunker for separate unloading.

With the separate bunker (option), the capacity for the small crop is 800 kg – the filling web is located below the picking web (13).



Double space, separated bunker (option) (14): only possible in combination with grading rollers (12) (option)

A great combination: strong drives, durable drawbar

Well-connected in every circumstance: A drawbar ball coupling can be supplied as an option.



Drawbar eye



Hitch or Piton-Fix



Ball bearing coupling (option)



As an alternative, the machine is secured attached underneath the PTO connection. All eyelets can be height adjusted (1) to fit different tractors.



The hydraulic side adjustment of the drawbar (2) and the centre running pto-shaft provide a smooth running of the drive unit and ensure long life.

Easily moveable and steady: the wide angle PTO-shaft (option) and hydraulic support (option) (3).



The maintenance free drive of the 2nd main web and wide haulm web (4) ensures a smooth running of the machine.

3-step gearbox (5) (option): all mechanically driven units can simply be reduced in speed to adapt the machine to sensible crop – reduced start shock.



Hydraulic axle steering: an option, that can almost be taken for granted: the hydraulic axle steering ensures a small turning radius and quick directional manoeuvres (6A).

Always balanced: with the optional hydraulic levelling unit (6B). In hilly terrain, use the automatic levelling function (option) – this will relieve the driver and ensure an even distribution of the potatoes onto the main webs and separating units.

Simple. Practical. Good: the operating concept of the SE 140



From hands-on use to hands-on use: The offset intake on the right-hand driver's side corresponds to the ergonomics of the driver's cabin and makes for easy machine handling. All important machine functions as well as the optional hydraulic share depth adjustment and ridge relief can be comfortably controlled from the driver's seat (1).



For convenient bunker unloading, a handy additional switch box as standard mounted on the left-hand side (2).



Reacting faster to blockages: with the optional slip monitoring of the 2nd main web (3) and the 1st separator.



No detours: The machine functions can be directly operated by the picking staff. If necessary, it is possible to warn or inform the driver by means of a signal-horn (4).

Everything under control: the excellent view of the intake unit from the drivers cab (5).



Technical data

	SE 140
Measurements	Transport
Length	8,300 mm
Width	3,000 mm
Height	3,160 mm
Weight (unladen)	5,000 kg (basic equipment)
Braking system	Air brakes
Drawbar	Drawbar eye, drawbar under PTO-shaft
Power transmission	PTO-shaft, v-belt drive, PTO-speed max. 540 U/min.
Axle	Hydraulic axle steering (option), hydraulic levelling (option)
Tyres	16.0/70-20
Intake	Pulled crop intake unit 2 pulled disc coulters, spring-loaded, choice of 540 mm, 580 mm or 620 mm 2- or 3-piece shares pulled diablo roller, 410 mm wide for 540 mm intake or 450 mm wide for 580 mm intake and 620 mm intake 2 haulm intake rollers, 400 mm diameter
1st main web	750 mm (series) or 850 mm (option) wide, 1,975 mm long
2nd main web	750 mm wide, 2,300 mm long
Haulm separation	Deviner web with scraper unit incl. 6 back-holding combs deviner web 850 mm wide, 4,000 mm long
1st separator	Lengthwise running hedgehog web with double scraper roller, mechanically driven and with manual levelling adjustment double scraper roller, adjustable in its height by means of the Bowden cable: 1,000 mm wide, 1,200 mm long.
2nd separator	Hedgehog web, manual driven and manual levelling, 650 mm wide 1,450 mm long Type UB: hydraulically driven finger web (3 rows) with scraper roller Type SB: hydraulically driven brush web with extended trash web
Picking table	Type UB/SB 685 mm wide (optional 766 mm wide) Trash web 360 mm wide (766 mm wide picking web = 280 mm wide) Picking web drive: infinitely hydraulically adjustable Trash web drive: separate infinitely hydraulically adjustable (option) Platform: on both sides for at least 4 and 2 (6 total) pickers with warning device for the tractor
Moving floor bunker	Maximum discharge height: 3,850 mm Capacity: 4,000 kg (4,100 kg incl. fill optimising) Drive: hydraulically infinitely adjustable
Hydraulic system	Electro-magnetic controls
Electrical system	Analogue control

The SE family



SE 75-20: 1-row, for small to medium-sized fields, special compact (low) design, moving floor bunker for 2,000 or 2,300 kg



SE 75/85-55: 1-row, offset trailed potato harvester with 5,500 kg large bunker – exactly right for those looking for digging performances among the single and double-row machines



SE 150/170-60: 2-row, offset trailed potato harvester, gentle, efficient and reliable harvesting, with large bunker for 6,000, 7,000 or 7,500 kg

Your Grimme Partner for advice and service:

Grimme Landmaschinenfabrik GmbH & Co. KG · Hunteburger Straße 32 · D-49401 Damme
Phone +49 5491 666-0 · Fax +49 5491 666-2298
grimme@grimme.de · www.grimme.com

GRIMME
HARVESTING SUCCESS!