

GRIMME

The Grimme SE 75 family of single row potato harvesters SE 75-20, SE 75-30, SE 75-40 class leaders for performance



A range of machines with innovative engineering features, covered by international patents, which give higher output, more effective separation and even gentler crop handling.

- Three tasks in one: Soil separation, haulm removal and transport of the crop up to the first separation section using a unique dual web system.
- Reduced potato damage: crop protectors on web side belts
- Longer web life: Special rubber covered web drive rollers give positive drive, quieter running and prolong web life.

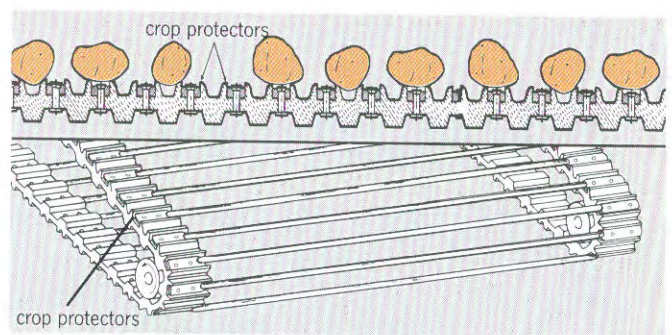
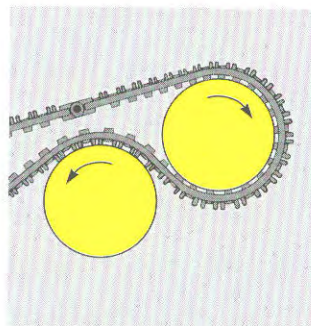
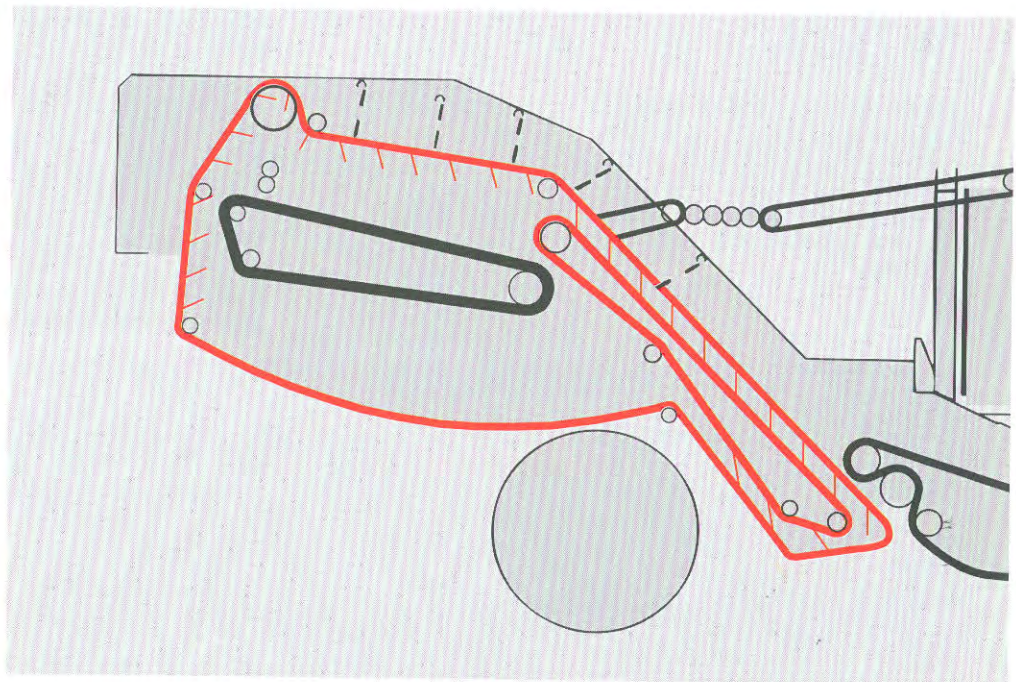
Grimme SE 75, the family with a long pedigree and a high reputation for gentle handling

Patented, multi-purpose conveying system on second main web section performs three tasks

- The short, first main web gives effective soil sieving
- The transfer onto the second main web is very gentle because of the very small drop



- On the second web the potatoes are gently carried up to the separation section in the 'pockets' created by the twin web system
- The haulm extracting web running closely with the second main web separates the haulm from the crop and returns it to the field



Rubber roller drives for main webs

The use of rubber drive rollers, which are independent of the pitch of the web, means that webs run more smoothly and quietly and that web life is considerably extended. Web changes can be carried out very quickly and webs of different pitches can be used without changing the drive rollers.

Crop protectors on web side belts protect the crop

During their journey through the machine the potatoes are protected from damaging contact with the web bar rivets by crop protector moulded into the side belts of all main and conveyor webs.



The three model Grimme SE 75 range offers gentle harvesting with effective separation and high output

SE 75-20

for medium to small acreages, especially compact construction with moving floor bunker with a capacity of 2 to 2.3 tonnes (can also be supplied with a bagging and weighing platform)



SE 75-30

for medium to large acreages,
compact, open design, with
moving floor bunker with a
capacity of 3 to 3.3 tonnes.



SE 75-40

for large acreages, compact,
open design with moving floor
bunker with 4 to 4.3 tonnes
capacity.



Innovation for the future

Grimme SE 75, three models to suit all needs

Connection to tractor 1

As the drawbar is situated in the centre of the front of the machine it is not necessary for a wide-angle pto shaft to be used.

Pulled crop intake section 2

The crop intake section consists of a 2 or 3-piece share, diablo rollers, two spring-loaded disc coulters and two large

diameter haulm feed in rollers which prevent haulm blockages. The method of mounting means that the whole crop intake section is pulled through, rather than pushed into, the ridge.

This offers the following advantages:

- Less power requirement,
- Less pressure from the dia-

bolo roller on the top of the ridge

- A reduction in the risk of haulm blockages.

The harvesting depth is controlled by the diablo roller and the digging depth is adjusted by means of a threaded rod. Also the disc coulters are adjusted to suit both the haulm and soil conditions by a similar threaded spring loaded rod.

Short first main web section

The short first main web section carries the crop from the share to the second main web and offers the following advantages:

- Reduced roll-back on light sandy, easily sieved soils.
- Higher soil sieving capacity on heavier soils because the

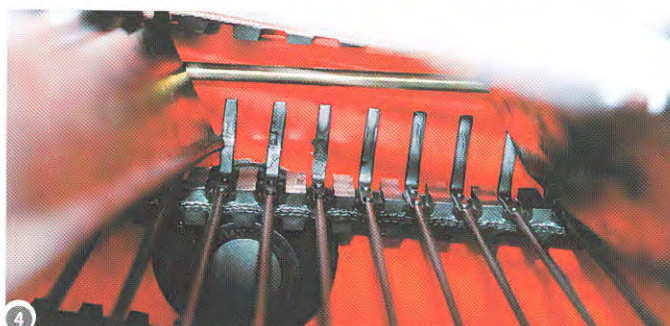


potatoes quickly reach the second web.

- Gentle transfer onto the second main web with very small drop.

The second main web/deviner web combination carries out three functions: It sieves loose soil, small clods and stones, the deviner web removes the haulm and it elevates the crop up to the first separator section.

The deviner web which runs close to the second main web, separates long haulms from the crop and returns it to the field. The rubber flights on the deviner web which run close to the second main web create 'pockets' which prevent tuber damage as the potatoes travel up the web.



Trash separation 5+7

Two separators which effectively remove clods, stones and any remaining haulm are fitted as standard.

The first separator is fitted with hedgehog web and twin, crop deflecting rollers which are adjustable for height remove light trash and return it to the ground. To maximise the effectiveness of

separation, the separator is laterally adjustable using a threaded rod (electric adjustment optional).

For the **second separator** there are the following options to suit working conditions:

► **SE 75-20**

Type UB 6: Variable speed, adjustable finger web with crop deflecting roller, for all soils with clods and small amounts of stone.

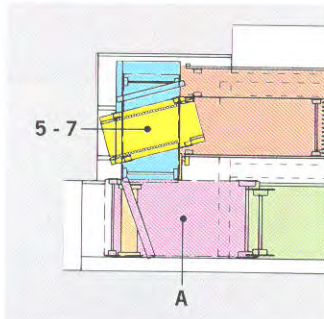
Type SB 7: Variable speed, adjustable brush web with extended trash web, for all soils.

► **SE 75-30 and SE 75-40**

Type NB 5: Adjustable crop deflecting roller, for light soils without stones and clods.

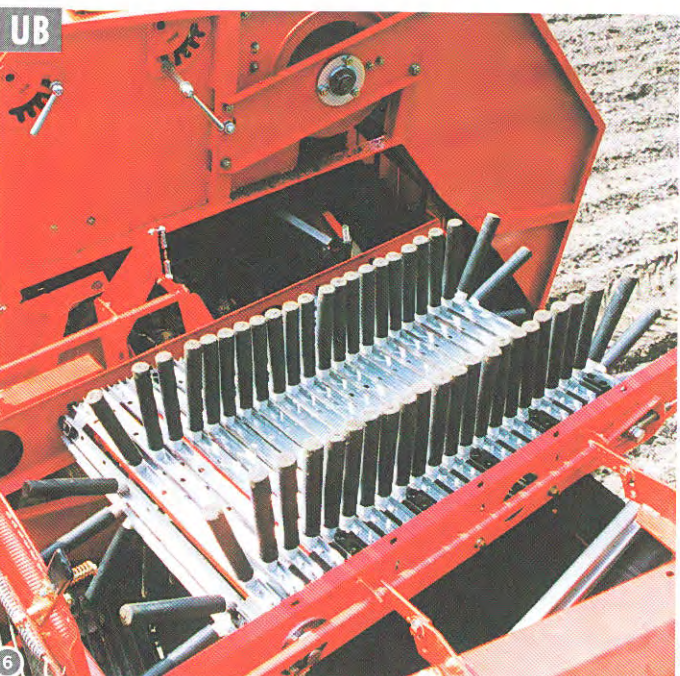
Type UB 6: Variable speed, adjustable finger web with crop deflecting roller, for light to heavy soils.

Type SB 7: Variable speed, adjustable brush web with extended trash web for stony soils.



Picking web 8

The variable speed, hydraulically driven picking web (58 to 68 cm wide depending on model) is mounted in a near horizontal position to eliminate roll-back and offer a good overall view of the crop. There is space for two pickers on either side of the picking table and the width of the picking table means that the crop is evenly distributed. The trash web which runs parallel to the picking web returns unwanted material back to the ground.



The Grimme SE 75 range proves that innovation and practical experience makes potato harvesting so easy

Moving floor bunker 9

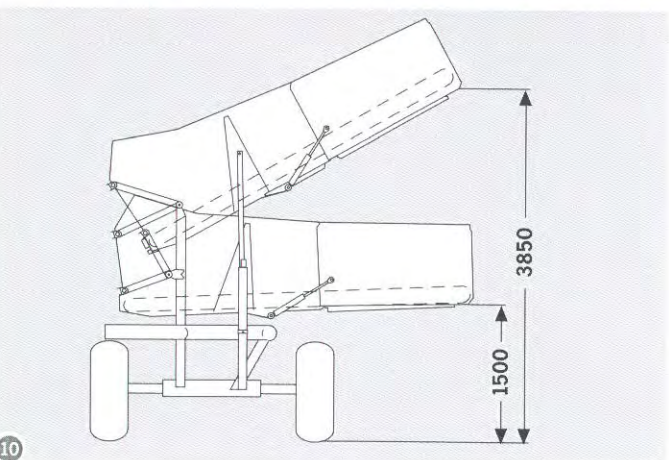
The final conveyor at the end of the picking table delivers the potatoes into the moving floor bunker. The delivery height of this web can be adjusted hydraulically (automatic height adjustment optional).

The PVC covered floor of the bunker is gentle to the first potatoes into the bunker and

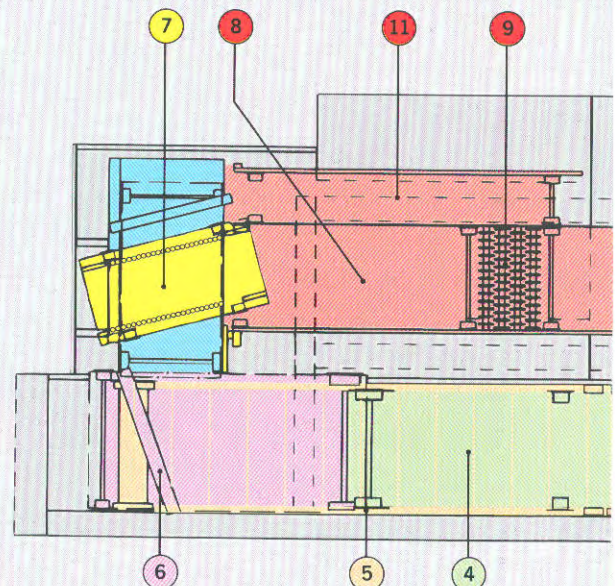
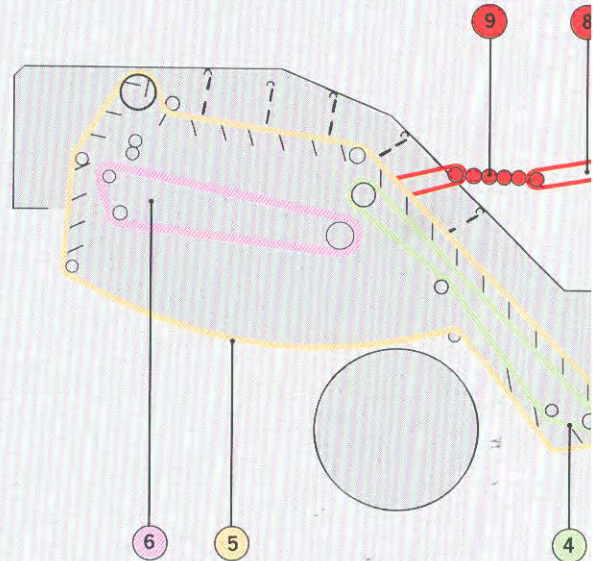
speeds up the emptying of the bunker (bunker filling optimisation and automatic filling optional).

Unloading of moving floor bunker 10

When the bunker is emptied it is first lifted vertically by hydraulic rams mounted at both the front and rear of the bunker. To unload the bunker it is



- ① Connection to the tractor drawbar or hitch
- ② Pulled crop intake assembly, consisting of 2 or 3-piece share, diabolo, disc coulters and haulm feed-in
- ③ Short first main web (75 x 140)
- ④ Second main web (75x195 cm or 75x220 cm depending on model)
- ⑤ Deviner web (85 x 370 cm or 75x420 cm depending on model)
- ⑥ First separator with double crop deflector
- ⑦ Second separator with:
 - deflector roller (NB) for light soils without stones and clods



- finger web with deflector roller (UB) for light to heavy soils
- brush web (SB) for stony soils

⑧ Picking web with platforms on either side for up to four pickers

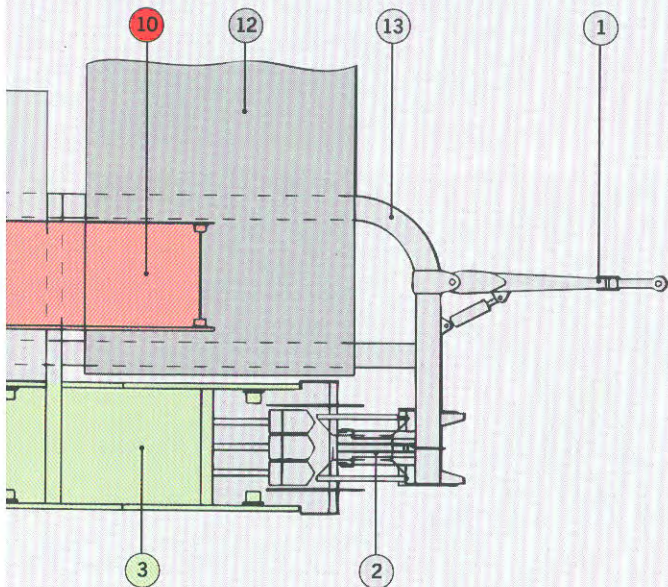
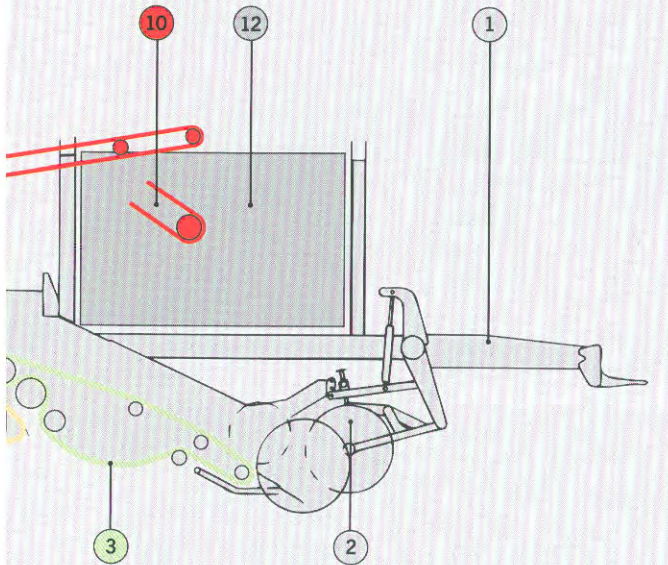
⑨ 4-roller grading (option)

⑩ Hydraulically raised section for final conveyor (option for SE 75-20)

⑪ Easy pick chute

⑫ Moving floor bunker

⑬ Round steel tube frame construction



then tipped towards the trailer in order to reduce the drop of the potatoes into the trailer.

This gives:

- Very smooth and quick emptying
- Little wear and tear as only two revolutions of the bunker floor are necessary for unloading

Hydraulic ⑪

For operator convenience, all SE 75 models have electro magnetic operated valves as standard. The SE 75-20 is also available with mechanical operated valves ⑪ at a reduced price.

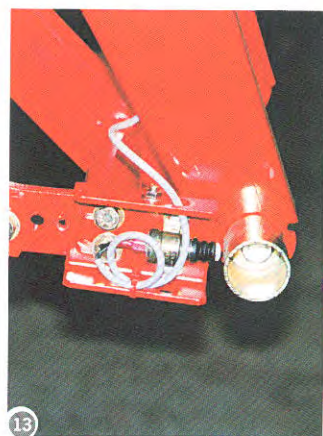
Tyres ⑫

To help reduce soil compaction and increase machine stability, wide section, low ground pressure tyres (12.5/80-18 AS or 16.0/70-20) are supplied as standard (alternative tyres optional).



Fully equipped in standard form – but optional extras tailor the machine to individual requirements

A number of optional attachments increase the productivity and efficiency of the machine and make it suitable for harvesting windrowed potatoes or to harvest vegetables.



Automatic „on the run“ lane adjuster 13

The use of two sensors to monitor the position of the diabolo in relation to the ridge top, means that the mouth of the machine can be set to automatically follow the row.

Ridge pressure regulation system 14

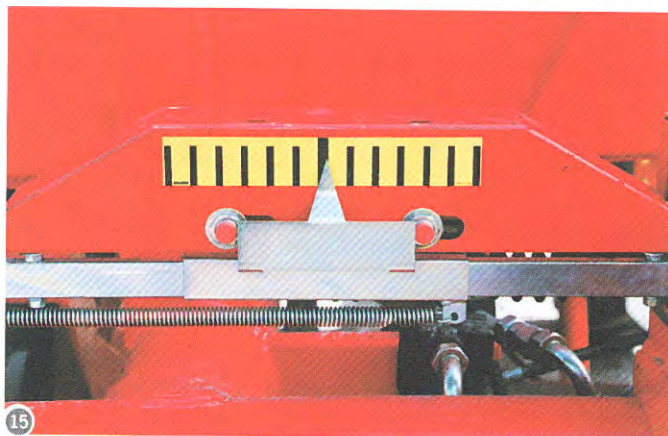
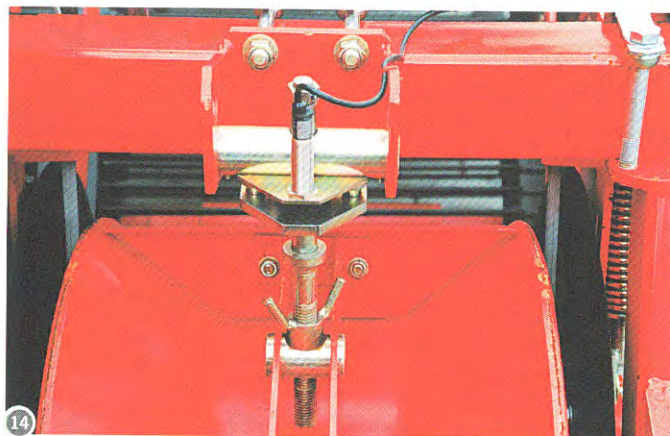
The ridge pressure regulation system, which is controlled from the remote control unit mounted in the tractor cab, avoids compaction and the creation of clods on heavy soils, or, on light sandy soils, prevents the early break-up of the ridge.

Automatic self-centring steering 15

The self-centring steering attachment ensures that the axle steering is automatically centred after turning on the headland.

Steering axle 16

In order to provide high manoeuvrability in small fields, the hydraulically operated steering axle allows the wheels to be turned by up to 30° in either direction.



Box-filling chute 17

Reduces the drop and, therefore, reduces damage to the potatoes when filling into boxes.

Windrow intake for both potatoes and onions 18

Windrowed potatoes or onions can be harvested smoothly by using the hydraulically driven brush web at the mouth of the machine. A quick change frame

reduces the time required to attach the intake unit.

Bunker filling optimisation 19

Active side panels ensure that the bunker is evenly filled from front to rear, to utilise its maximum capacity, i. e. + 300 kg.

Stone box 20

Stones which are separated from the crop can be collected

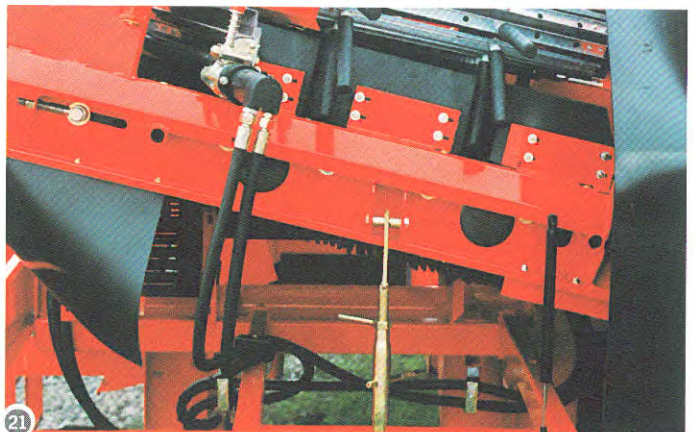
in the stone box for removal from the field. The stone box can also be locked open to allow all trash to fall back to the ground.

Electrically adjustable separator levelling 21

The separator levelling can be electrically adjusted instead of using the mechanical adjustment mechanism shown in the photo.

Final conveyor automatic height control 22

The drop height of the potatoes into the moving floor bunker is always held to minimum distance. When the optical distance switch recognizes the potato dropping radius it automatically raises the final conveyor a little at a time. This guarantees very small drops and therefore reduces the risk of tuber damage at this point.



Fully equipped in standard form – but optional extras tailor the machine to individual requirements

A number of optional attachments increase the productivity and efficiency of the machine and make it suitable for harvesting windrowed potatoes or to harvest vegetables.



Grading out small potatoes ²³

The grading unit consists of four grading rollers, two of which can be adjusted to increase or reduce the grading gap. If a greater gap adjustment is required the waves and spacing of the discs have to be changed.

collected in a moving floor bunker which can be emptied at the side of the field via the discharge elevator.

Weighing equipment ²⁵

The SE 75-20 can be fitted with a loading platform and bagging scales, either with or without an air compressor.

Moving floor bunker with discharge elevator under grader ²⁴

The potatoes separated out by the 4-roller-grading unit can be



Tyres ²⁶

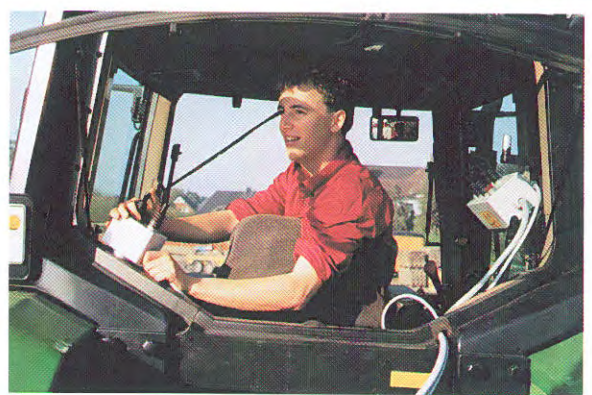
The machine can be equipped with the following tyres:

- a) = 12.5-18/AS
- b) = 500/45-22.5
- c) = 16.0/70-20/AS
- d) = 16.0/70-20/AW
- e) = 500/60-22.5
- f) = 600/50-22.5
- g) = 600/55-26.5

Grimme SE 75: Working safety and ergonomics

Optional equipment		SE	SE	SE
● available – not available		75-20	75-30	75-40
Bagging scales		●	●	●
Hydraulic axle steering		●	●	●
Self centring steering		●	●	●
Trash return web		●	●	●
Tyres	500/45-22.5	●	–	–
	16.0/70-20 AS	●	●	●
	500/60-22.5	●	●	●
	600/50-22.5	●	●	●
Large picking table		–	–	●
Bunker & elevator for small potatoes		●	●	●
Automatic bunker filling		●	●	●
Filling optimisation for bunker		●	●	●
Autom. pressure regulation for diablo		●	●	●
Autom. „on the run“ lane adjuster		●	●	●
Double potato hopper at final conveyor		●	●	●
Three-speed-gearbox		●	●	●
Triangle rollers in main web, adjustable		●	●	●
Triangle rollers in main web		●	●	●
Hydraulic drive for separators		–	●	●
Easy pick chute r/h side		●	●	●
Box filling chute on moving floor bunker		●	●	●
Electr. agitator adjustment		●	●	●
Haulm deflectors		●	●	●
Carrot harvesting attachment		●	●	●
Windrow intake with quick change frame		●	●	●
Web bars, staggered		●	●	●
Small potato grader		●	●	●
Stone box		●	●	●
Electr. adjustment of separator levelling		●	●	●
Final conveyor lowered hydr.		●	series	series
Final conveyor automatic raise/lower		●	●	●
Wide angle pto shaft		●	●	●

- (1) The reduced overall height of the models in the SE 75 family of machines means that the tractor driver has a very good overall view of the mouth of the machine and the picking area.
- (2) Most tractor drivers look back over their right shoulder. Therefore, on all SE 75 models the mouth of the machine is located on the right of the machine. The remote control box for the operation of the main machine functions can also be mounted on the right-hand side of the tractor cab. For greater operator comfort and convenience the controls used to empty the bunker, steer the rear axle and adjust the lane adjuster and bunker functions can be mounted on the left-hand side of the tractor cab in an additional control box.



Technical Data		SE 75-20		SE 75-30		SE 75-40	
Measurements		Transport	Work	Transport	Work	Transport	Work
Length		7.90 m	7.90 m	8.40 m	8.40 m	8.40 m	8.40 m
Width		3.00 m	4.65 m	3.00 m	4.65 m	3.00 m	4.65 m
Height		3.10 m	2.80 m	3.15 m	3.15 m	3.15 m	3.15 m
Weight, unladen		3.8 t		4.3 t		4.8 t	
Connection to tractor		drawbar or hitch, hydraulic adjustment					
Drive		Pto-shaft with slip clutch, maximum speed of pto-shaft 540 rpm					
Tyres		12.5/80-18 AS		16.0/70-20			
Crop Intake		<ul style="list-style-type: none"> - pulled crop intake section - spring-loaded disc coulters with adjustment for 54, 58 or 62 cm - choice of 2 or 3-piece digging shares - diabolo roller - 41 cm wide for 54 cm intake or 45 cm wide for 58 or 62 cm intake - 2 haulm intake rollers - 40 cm in diameter 					
Soil separation	1st main web	75 cm wide, 140 cm in length, bars 9 mm average. Choice of 35, 40, 44, 50 mm pitch					
	2nd main web	75 cm wide, 195 cm in length, bars 7 mm, on choice 32, 40, 44 pitch		75 cm wide, 220 cm in length, bars 7 mm on choice 32, 40, 44 mm pitch			
Haulm separation		Crop deflector unit with rubber deflector combs Deviner web 85 cm wide x 370 cm in length Deviner web 85 cm wide x 420 cm in length					
Separation system	1st Separator	Mechanically driven, with rubber crop deflectors Angle adjustable rubber hedgehog belt with double crop deflector rollers.					
	Width	90 cm		90 cm			
	Length	115 cm		150 cm			
	2nd Separator	Mechanically driven, angle and height adjustable rubber hedgehog					
Width	65 cm		65 cm				
Length	115 cm		115 cm				
		Type UB: finger web with crop deflecting roller			Type NB: with crop deflecting roller		
		Type SB: brush web with extended trash web			Type UB: finger web with crop deflecting roller		
					Type SB: brush web with extended trash web		
Picking table		58 cm wide		68 cm wide			
picking web		28 cm wide		34 cm wide			
picking platform		Platform for 2 + 2 persons on each side					
drive		Variable speed hydraulic					
Moving floor bunker		3.85 m		3.85 m		3.85 m	
Unloading height		2.000 kg		3.000 kg		4.000 kg	
Capacity		2.300 kg		3.300 kg		4.300 kg	
Capacity with filling attachment drive		hydraulic		hydraulic		hydraulic	
Hydraulics		Mech. or El. magn. valves			Electro magnetic valves		

Potato technology
for field and storage

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If you would like to get more detailed information, if you would like to see a machine in action or if you would like an offer – just ask your qualified farm machine company or a farm machinery consultant in the field. You can also call the Grimme Service department for the information that you need.
Tel.: +49 (0) 54 91/66 6-0
We reserve the right of technical alterations.