

# SERVICE MANUAL

## VX680 Grape Harvester

Part number 6048231100  
English  
November 2005



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# REPAIR MANUAL

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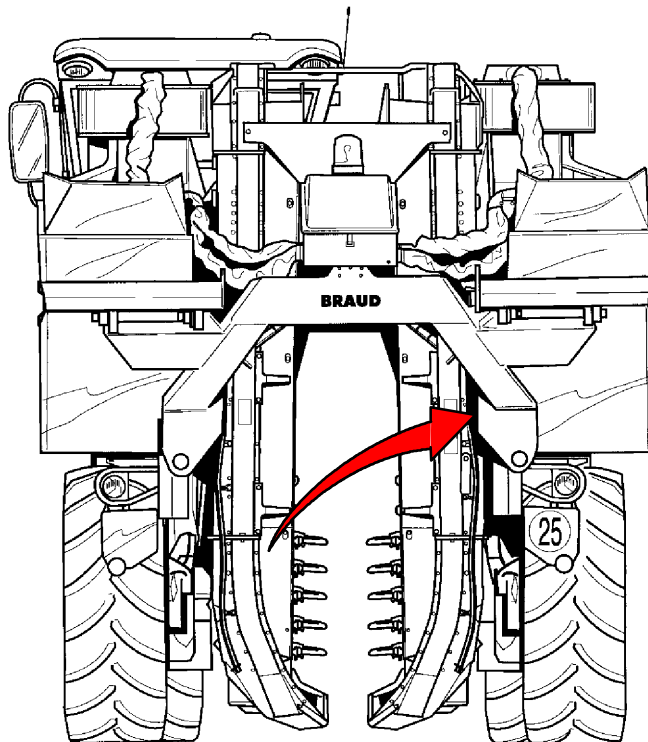
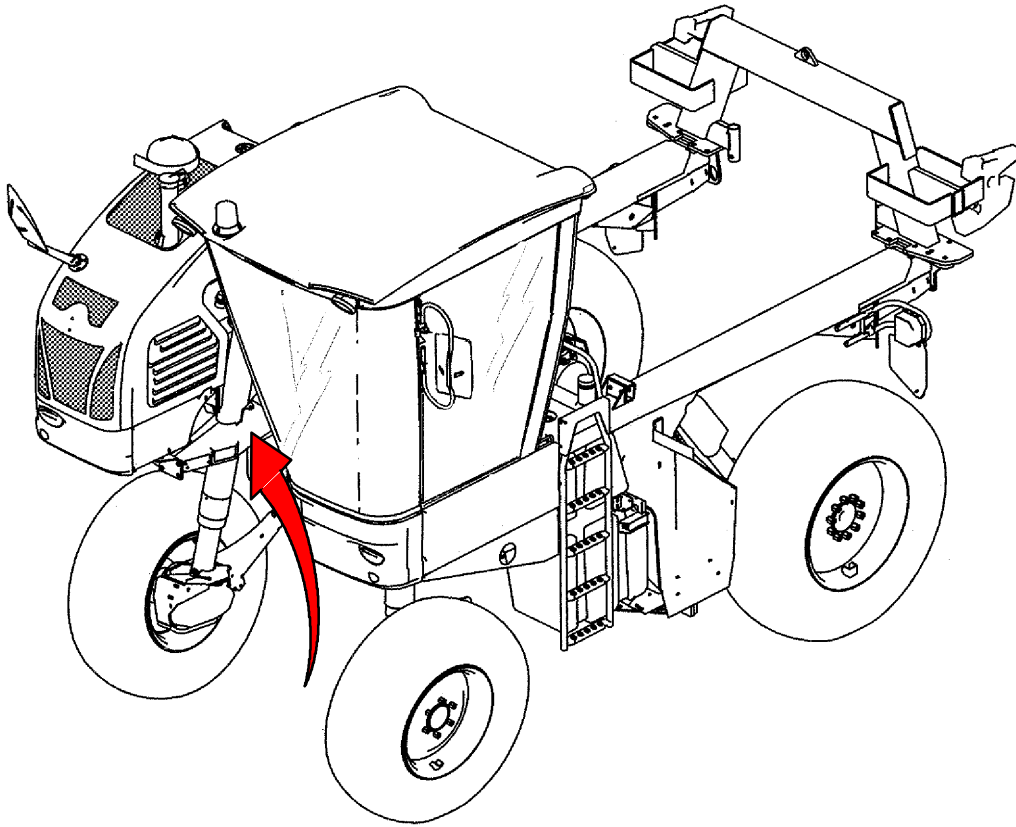


# SPECIFICATIONS

## Chapter 1

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## MACHINE IDENTIFICATION DATA

Model	Type	Serial number	Machine number
VX 680	665	001	001
Harvesting equipment	666	001	001
Harvesting equipment starting from series 002	665	002	001

**A = manufacturer's label**

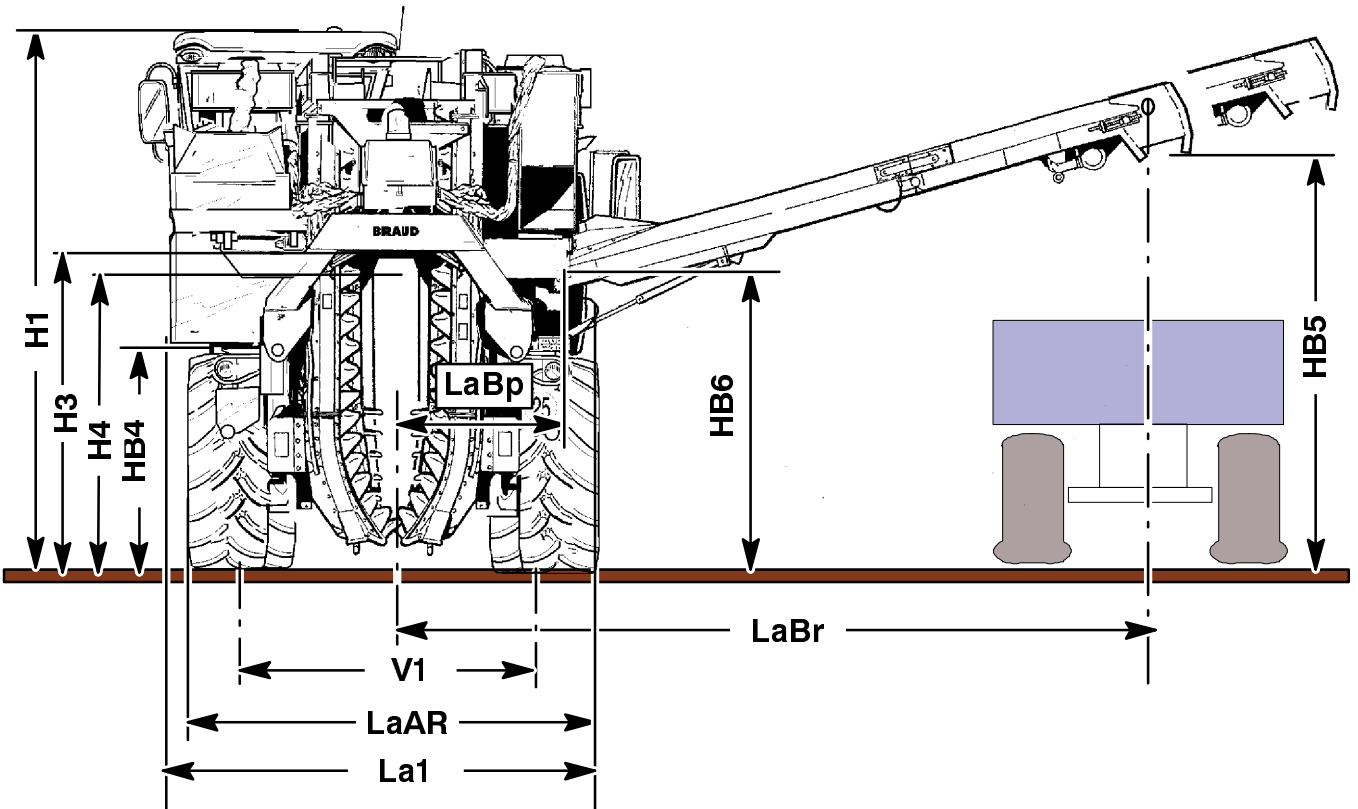
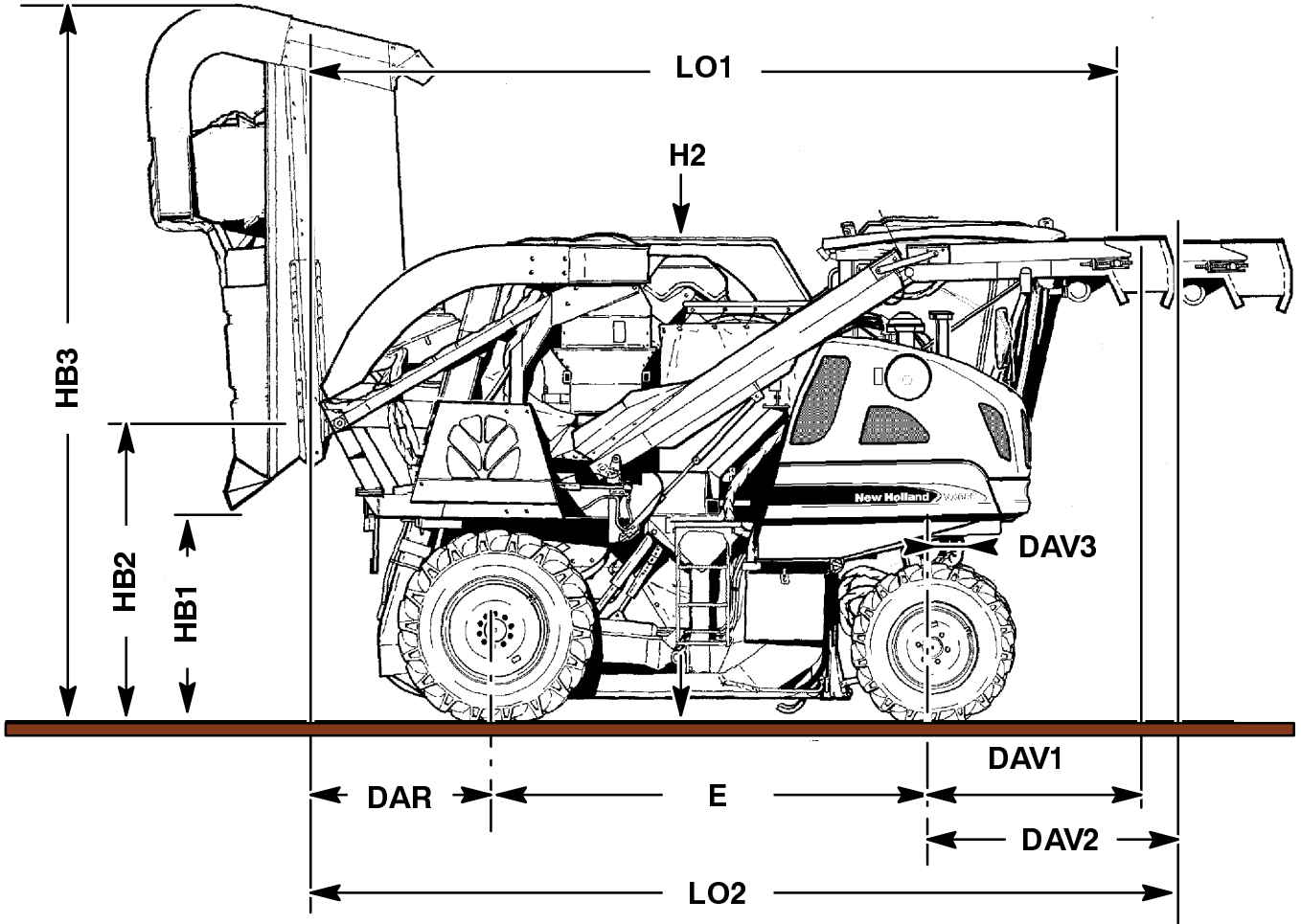
**B = stamped frame number**

## OPERATOR'S MANUAL

Reference: 604 80 240 00 (I)  
604 80 241 00 (GB)  
604 80 242 00 (F)  
604 80 243 00 (SP)

## SPARE PART CATALOGUE

Reference:

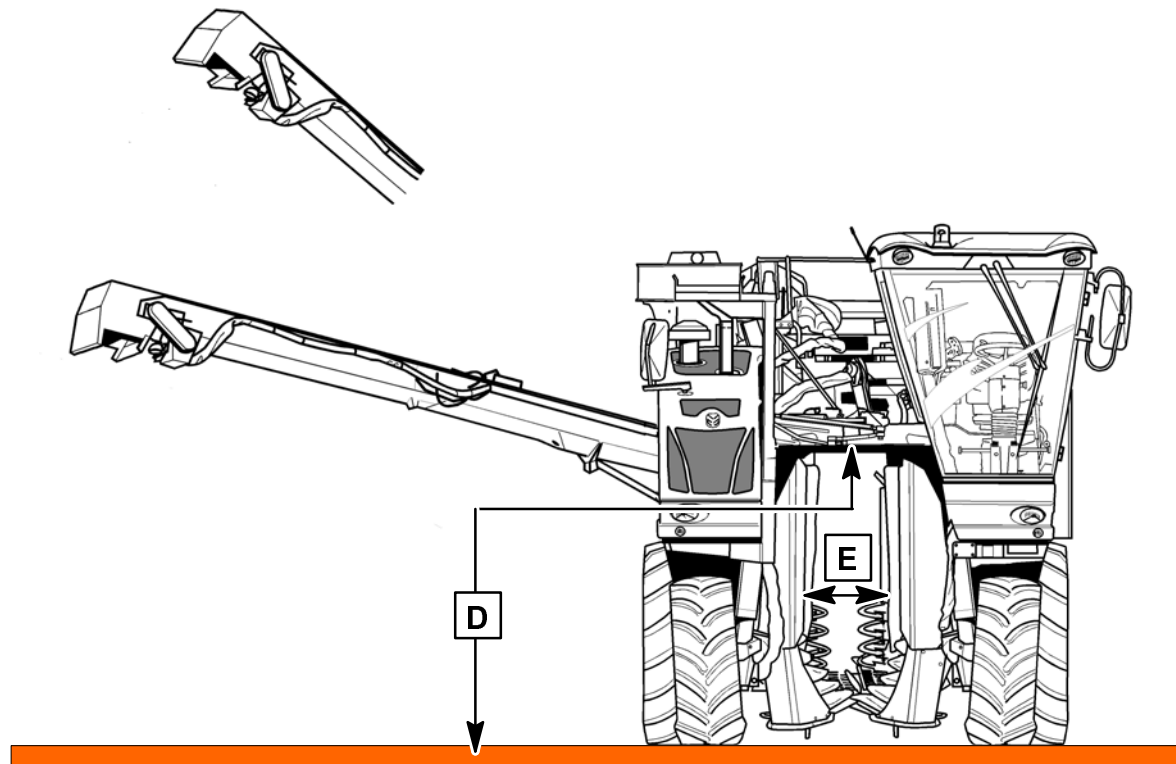
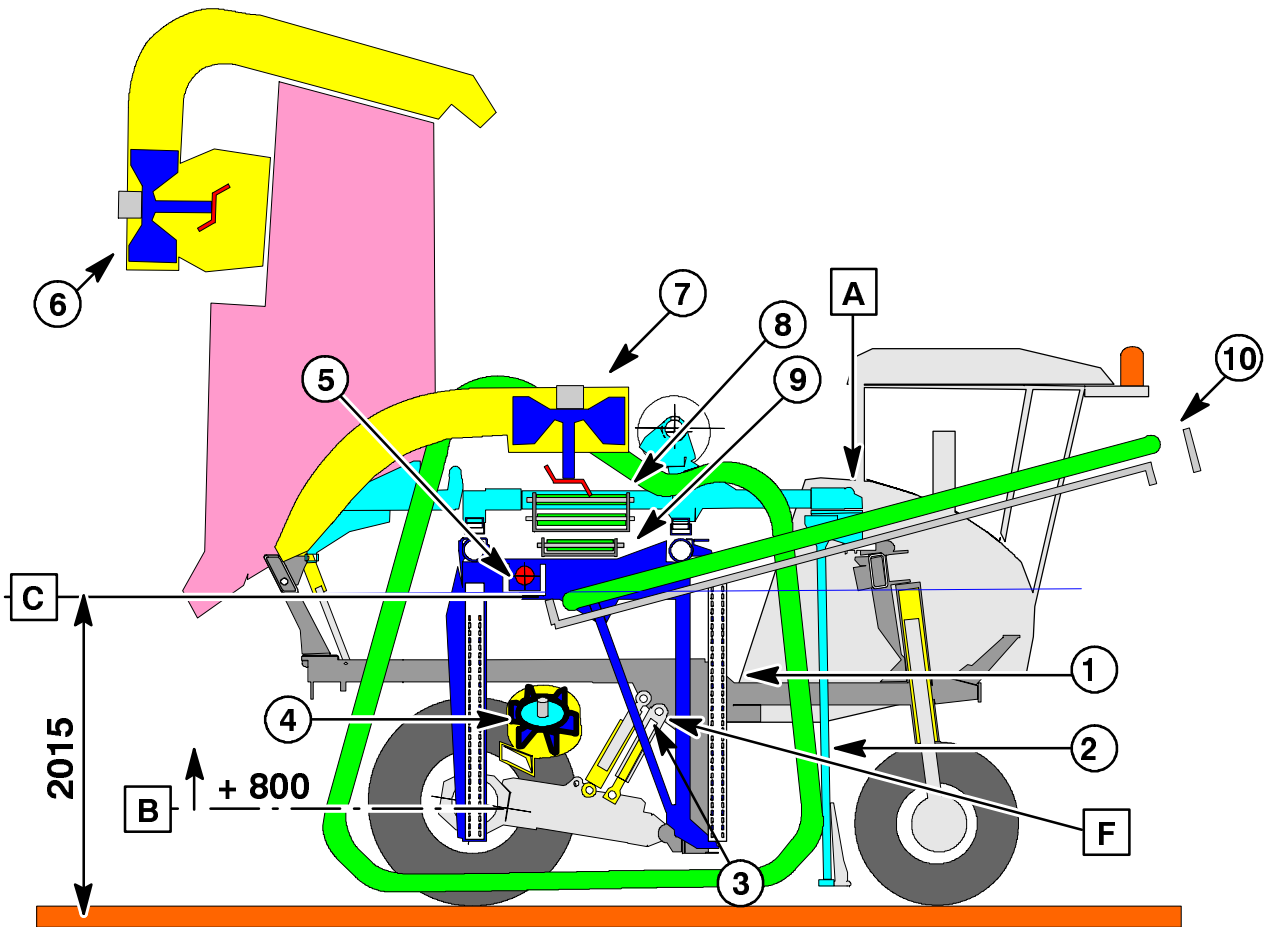


COMMERCIAL DESCRIPTION		VX 680 (1)
<b>Self-propelled machine</b>		
<b>Code</b>	<b>DIMENSIONS (mm)</b>	
H1	Height: in road position with cab (the noria is at 200 mm from the ground)	3810
H2	Harvesting equipment height (2) to the railings	3470
H3	Clearance under rear beam	Min.
		Max.
H4	Harvesting equipment clearance under tunnel	Min.
		Max.
HB1	Clearance under tilted up hoppers	1660
HB2	Tilting axle height	2080
HB3	Max. height with lifted hopper	5270
HB4	Height under clearance 1550 l hopper	1375
HB5	Height to the roller axis of the emptying link Machine on ground 5200 mm 4200 mm	from 1780 to 4460 to 3950
HB6	Link pivot height	1850
LaBp	Link pivot position	1113
LaBr	Position of the roller on the link end perpendicular to the machine axis 5200 mm if HB5 = 3180 mm 4200 mm if HB5 = 2920 mm	6015 5045
La1	Max. width 1550 l hopper and emptying link in road position	3140
La AR	Outer width at the rear wheel level: (V1 + Gb = La AR)	Tyres 480 / 70 R 28 Tyres 600 / 55 x 30.5 2425 + 495 = 2920 2530 + 600 = 3130
La AV	Outer width at the front wheel level on ground: (V2 + Gb = La AV) (V2 at ground level)	Tyres 420 / 70 R 24 2130 + 430 = 2560
E	Wheelbase	3180
Lo 1	Overall length	at the cab front
Lo 2		on the link end 4200
DAV1	Front offset	at the cab front
DAV2		on the link end 4200
DAV3	Tool fixing offset	280
DAR	Rear offset	1610

- (1) VX 680 version with hopper and emptying link

- (2) noria on the ground





**EMPTYING CONVEYOR ON THE RIGHT SIDE AND LEFT HOPPER****Low machine**

- A** Central cross beam of the harvesting equipment with a 200-mm rise
- B** Sloping correction, 800 mm
- C** Sliding shaking transmission to get a clearance by 2015 mm under the cover, with harvesting equipment in low position
- D** Clearance height under the frame beam, min. 2015 mm max. 2815 mm
- E** Clearance width at the leaves entry, 700 mm
- F** No lock

**1 Shaking frame**

- shaking plates for removable shakers
- 24 shakers  
22 straight connecting rods  
2 elbow connecting rods
- 240-mm extension

**2 Norias**

- 67 large buckets
- clearance in the stake-guide, 195 ÷ 400 mm

**3 Lift retainer**

- on one side

**4 Lower extractors**

- diameter 430 mm
- independent stalk choppers, released in washing position

**5 Shaking drive**

- drive sliding in the center of the longitudinal members (at the bottom)

**6 Left hopper**

- capacity 1550 litres
- extractor, dia. 638 mm, with a removable stalk chopper
- leaf evacuation chute, on the side

**7 Emptying conveyor extractor**

- extractor, dia. 638 mm, with a removable stalk chopper
- leaf evacuation chute, at the back

**8 Harvesting conveyors**

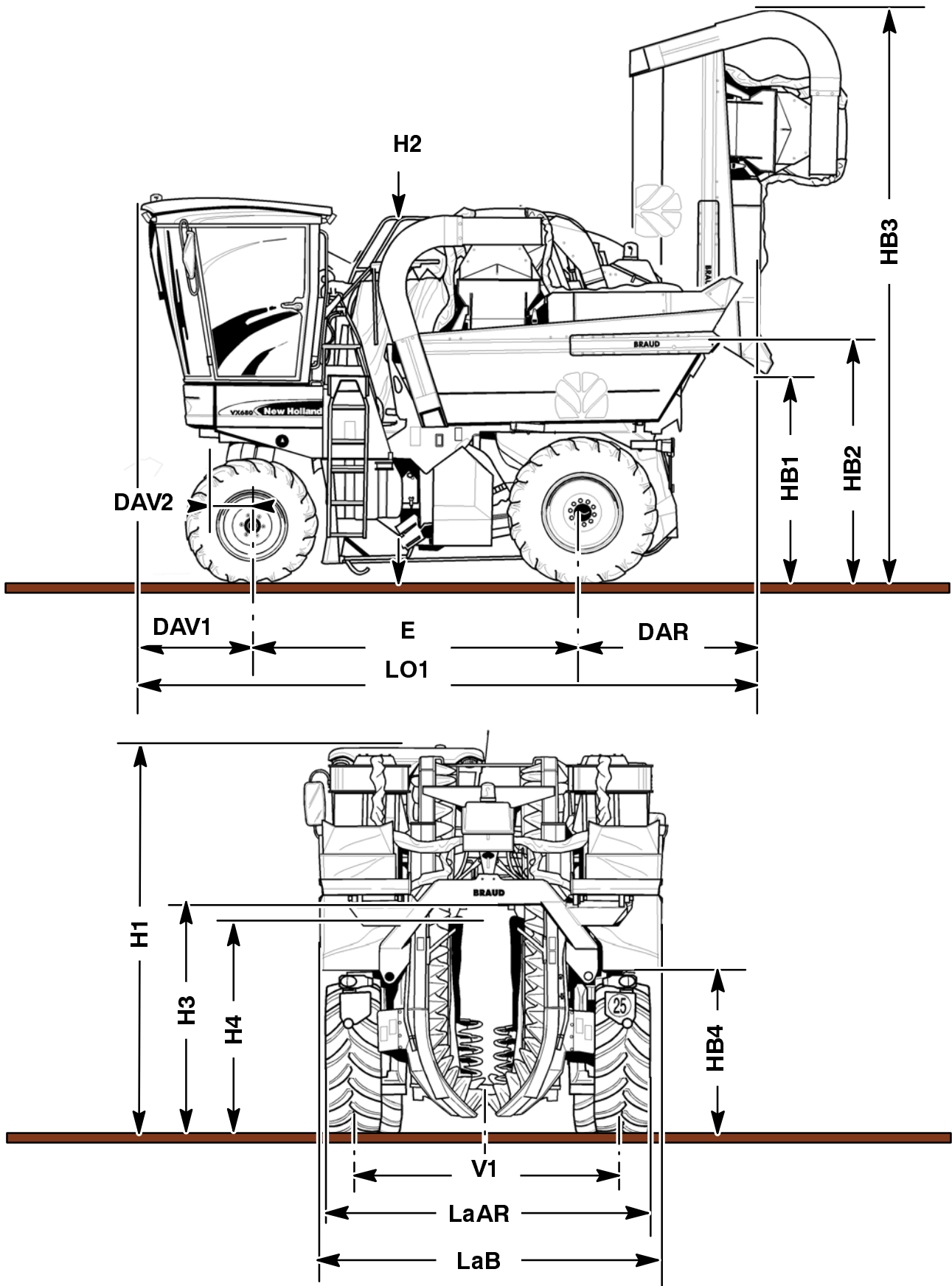
- width 600 mm

**9 Transfer conveyor**

- width 600 mm

**10 Side emptying conveyor**

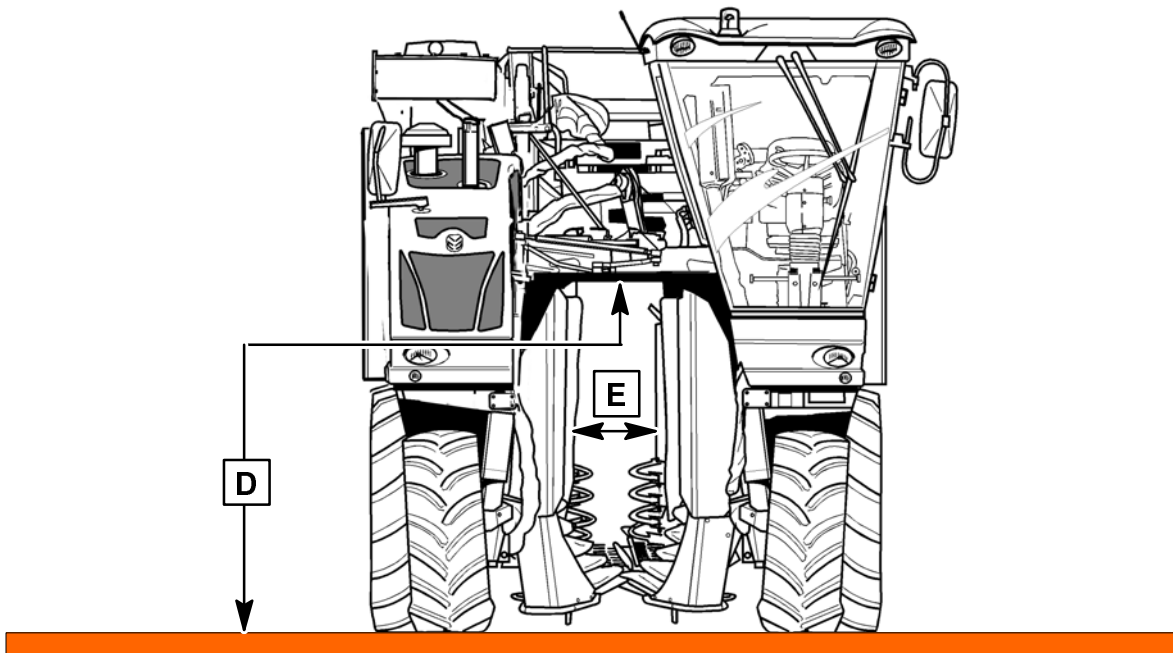
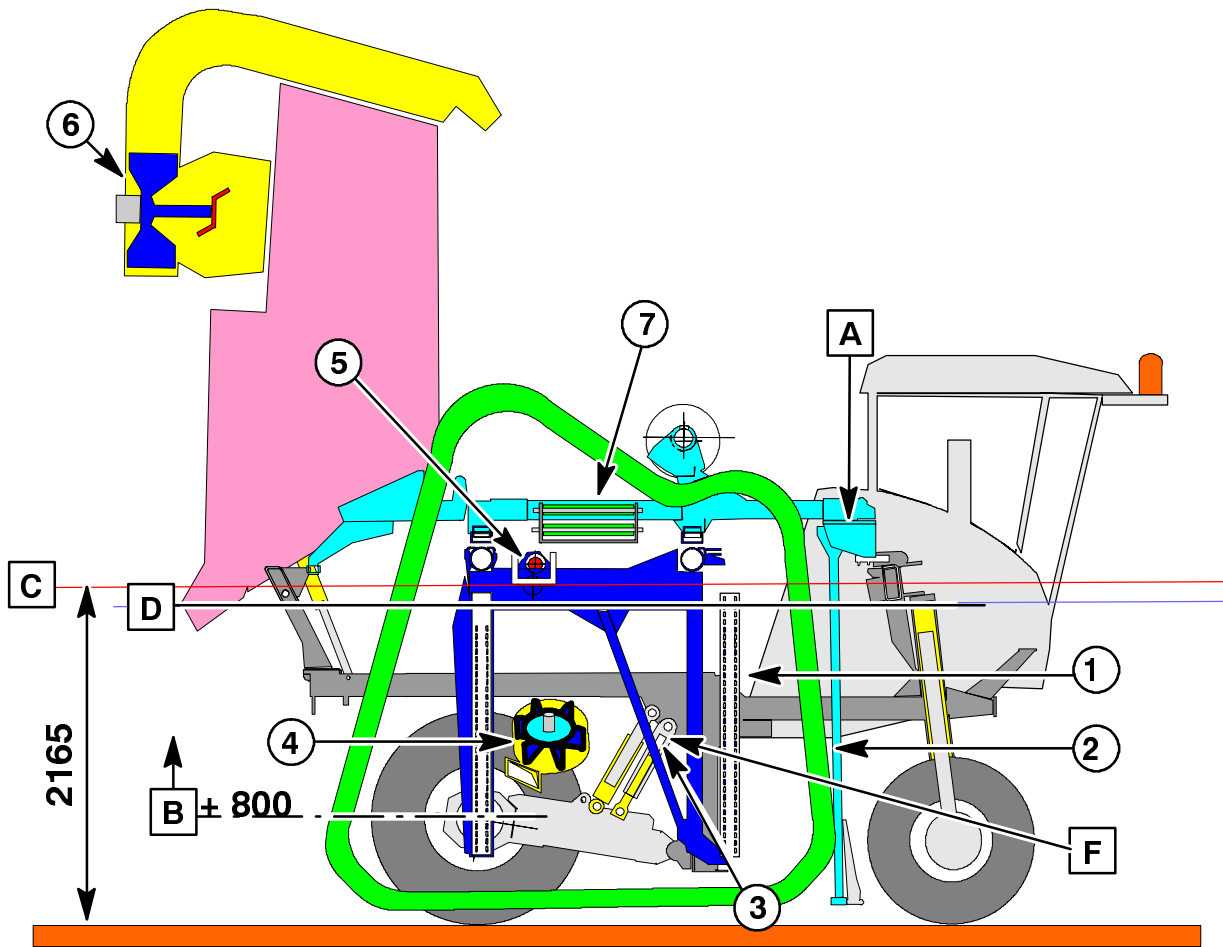
- width 350 mm
- length 4200 or 5200 mm depending on the version (only the end length changes)



COMMERCIAL DESCRIPTION		VX680 (2)	VX680 (3)
<b>Self-propelled machine</b>			
Code	DIMENSIONS (mm)		
H1	Height: (lowered harvesting equipment)	with cab	3605      3740
H2	Harvesting equipment height (with noria on the ground)	to the railings	3470      3470
H3	Clearance under beam Harvesting equipment	Min. Max.	2015      2215 2815      2815
H4	Harvesting equipment clearance under tunnel	Min. Max.	2165      2265 2965      2865
HB1	Clearance under tilted up hoppers		1860      2080
HB2	Tilting axle height		2080      2310
HB3	Max. height with lifted hopper		5270      5500
HB4	Height under clearance	1550 l hopper	1375      1600
LaB	Max. width of 2x1550 litres hoppers		3220
La AR	Outer width at the rear wheel level: (V1 + Gb = La AR)	Tyres 480 / 70 R 28 Tyres 600 / 55 x 30.5	2425 + 495 = 2920 2530 + 600 = 3130
La AV	Outer width at the front wheel level on ground: (V2 + Gb = La AV) (V2 at ground level)	Tyres 420 / 70 R 24	2130 + 430 = 2560
E	Wheelbase		3180
Lo 1	Overall length	at the cab front	5840
DAV1	Front offset	at the cab front	1050
DAV2	Tool fixing offset		280
DAR	Rear offset		1610

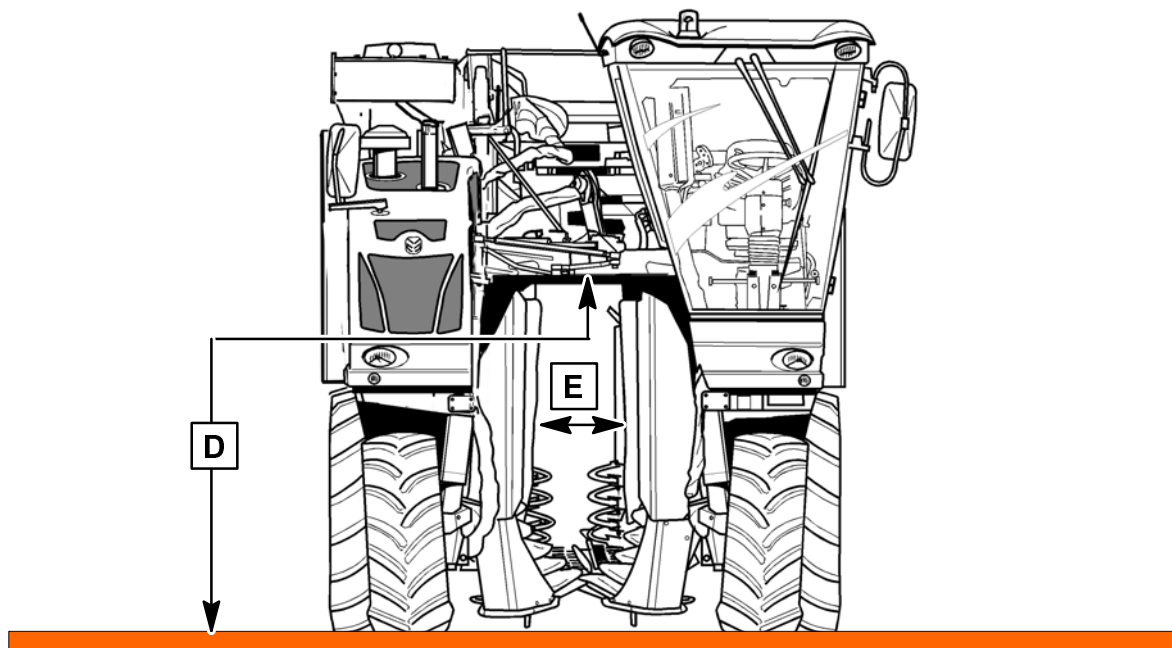
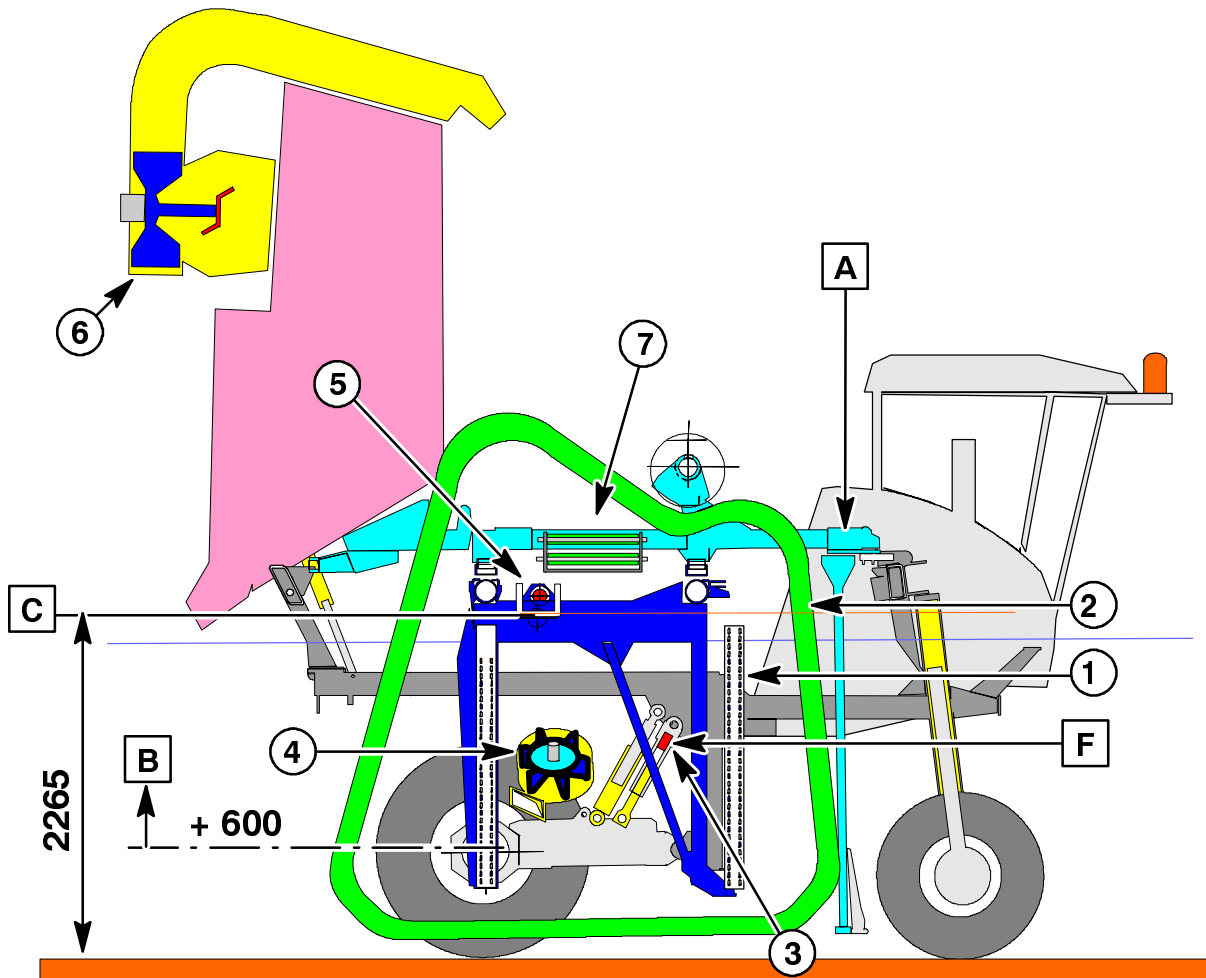
- (2) VX680 low version, with two hoppers,  
axle clearance 2.00 m

- (3) VX680 high version with two hoppers,  
axle clearance 2.20 m



**VX680 WITH TWO HOPPERS, LOW VERSION  
AXLE CLEARANCE 2.00 m**

- |  |   |
|--|---|
| <p><b>A</b> Central cross beam of the harvesting equipment with a 200-mm rise</p> <p><b>B</b> Sloping correction, 800 mm</p> <p><b>C</b> Sliding shaking transmission to get a clearance by 2165 mm under the cover, with harvesting equipment in low position</p> <p><b>D</b> Max. clearance height limited by the frame front beam and by the rear cross-piece at min. 2015 mm max. 2815 mm</p> <p><b>E</b> Clearance width at the leaves entry: 700 mm</p> <p><b>F</b> No lock</p> <p><b>1 Shaking frame</b></p> <ul style="list-style-type: none"> <li>- shaking plates for removable shakers</li> <li>- 24 shakers</li> <li>  22 straight connecting rods</li> <li>  2 elbow connecting rods</li> <li>- 240-mm extension</li> </ul> <p><b>2 Norias</b></p> <ul style="list-style-type: none"> <li>- 67 large buckets</li> <li>- clearance in the stake-guide, 195 ÷ 400 mm</li> </ul> | <p><b>3 Lifting retainer</b></p> <ul style="list-style-type: none"> <li>- on one side</li> </ul> <p><b>4 Lower extractors</b></p> <ul style="list-style-type: none"> <li>- diameter 430 mm</li> <li>- independent stalk choppers, released in washing position</li> </ul> <p><b>5 Shaking drive</b></p> <ul style="list-style-type: none"> <li>- sliding drive located above the longitudinal members (at the top)</li> </ul> <p><b>6 Left and right hoppers</b></p> <ul style="list-style-type: none"> <li>- capacity 1550 litres</li> <li>- extractor, dia. 460 mm, with a removable stalk chopper</li> <li>- leaf evacuation chute, on the side</li> </ul> <p><b>7 Harvesting conveyors</b></p> <ul style="list-style-type: none"> <li>- width 600 mm</li> </ul> |
|--|---|



**VX680 WITH TWO HOPPERS, HIGH VERSION  
AXLE CLEARANCE 2.20 m**

- A** No rise to lift the self-propelled machine by 200 mm
- B** Sloping correction, 600 mm
- C** Sliding shaking transmission to get a clearance by 2265 mm under the cover, with harvesting equipment in low position
- D** Max. clearance height limited by the frame front beam and by the rear cross-piece at  
min. 2215 mm  
max. 2815 mm
- E** Clearance width at the leaves entry: 700 mm
- F** Retainer, 100 mm, to increase the frame height by 200 mm

**1 Shaking frame**

- shaking plates,
  - 1) standard (compulsory for olives)  
34 openings, useful height 1650 mm,
  - 2) optimized  
for removable shaking
- 24 shakers  
22 straight connecting rods  
2 elbow connecting rods
- 240-mm extension

**2 Norias**

- 67 large buckets
- clearance in the stake-guide,  
195 ÷ 400 mm
- clearance (E) in the entry sheets, 700 mm

**3 Lifting retainer**

- on two sides

**4 Lower extractors**

- diameter 430 mm
- independent stalk choppers,  
released in washing position

**5 Shaking drive**

- sliding drive located above the longitudinal members (at the top)

**6 Left and right hoppers**

- capacity 1550 litres
- extractor, diameter 460 mm, with removable stalk chopper
- leaf evacuation chute, on the side

**7 Harvesting conveyors**

- width 600 mm



COMMERCIAL DESCRIPTION		VX 680
<b>WEIGHT</b>		
PTAC - Total allowed weight under load (kg)		
Partition	Front axle (kg)	
	Rear axle (kg)	
Empty weight with harvesting equipment and without (with) destemmers	Total	
Weight of one wheel (kg)	420/70 R 24	
	480/70 R 28	
	600/55 x 30.5	
Thermal engine weight (kg)		
<b>FEEDING/EXHAUST</b>		
Fuel tank	Used fuel	Diesel fuel
	Capacity (litres)	250
Engine feeding system		Direct injection
Air filter	Make	DONALDSON
	Type	ELB 12-0265
Engine cooling	Water capacity (litres)	
	Fan	sucking (2 speeds)
Cooling fan Ø (mm)		610
<b>DRIVE</b>		
Pump for engine fan	Make	SAUER
	Displacement (cm <sup>3</sup> /rev.)	17
	Empty operating speed (rpm)	2325 (93% of engine speed)
	Capacity (l/minute), output 0.9	35
Fan motor	Make	SAUER
	Displacement (cm <sup>3</sup> /rev.)	12.2
Variable displacement inching hydraulic pump	Make	REXROTH
	Type	A4VG
	Total displacement (cm <sup>3</sup> /rev.)	from 0 to 105

<b>DRIVE (follows)</b>		
Priming pump	Displacement (cm <sup>3</sup> /rev.)	25
	Capacity (l/minute), output 0.9 Speed 2500 rpm	56.25
Front wheel motor	Make	POCLAIN
	Type	MS 08
	Displacement (cm <sup>3</sup> /rev.)	1043
Rear wheel motor	Make	POCLAIN
	Type	MSE 18
	Displacement (cm <sup>3</sup> /rev.)	2636 (1406/1230)
Max. speed (km/h) in road position		25 km/h
Max. speed in field position		12
Hydraulic oil		
Capacity (litres)	Total	65
	Reservoir	
Oil type		NEW HOLLAND: Hydrosystem 68 or Hydrosystem 68 BIO S
Conveyor and extractor pump	Make	REXROTH
	Displacement (cm <sup>3</sup> /rev.)	"Load sensing" from 0 to 45
	Idle operating rpm speed	2500 (see engine speed)
	Capacity (l/minute), output 0.9	101.2
Shaking pump	Make	SAUER
	Displacement (cm <sup>3</sup> /rev.)	22
	Idle operating rpm speed	2500 (see engine speed)
	Capacity (l/minute), output 0.9	50
Steering/lifting/hopper pump	Make	SAUER
	Displacement (cm <sup>3</sup> /rev.)	14
	Idle operating rpm speed	2325 (93% of engine speed)
	Capacity (l/minute), output 0.9	29
<b>STEERING SYSTEM</b>		
		<b>Hydrostatic</b>
Type		EATON QAMP 146 cm <sup>3</sup> /rev.
<b>BRAKING SYSTEM</b>		
Service brake		Supplied by the hydrostatic transmission
Service brake (on one rear wheel)		Operated by one pedal and by the steering
Parking brake		Operated by left manual lever

<b>TILTING CORRECTION</b>		30%
<b>PLATFORM CAB</b>		
Heated and A/C cab		Depending on the model
Activated charcoal filter		Optional
On-board computer		•
Pneumatic seat		•
Multifunction lever		•
Climate control compressor	Manufacturer / Model Gas R 134a (g) Oil SP20 or SK 20 cm <sup>3</sup>	Sanden U 4643 1900 FIAT LUBRIFICANTI LBAR 134 Add 125
<b>LIGHTING AND WARNING LIGHTS</b>		
High/low beams		2
Front parking lights		2
Rear parking lights		2
Direction indicator lights	Front	2
	Rear	2
	Side	2
Stop lights		2
License plate light		1
Reflector	Rear	2
Revolving beacon	with cab	2
Supply voltage / battery		12 V / 180 Ah
Alternator		120 A

<b>HARVESTING EQUIPMENT</b>		
<b>HARVESTING HEADER</b>		
Type		Swinging, self-aligning
System		S.D.C shaking
Number of shakers		24
Straight/elbow connecting rod		22/2
Shaking drive	Motor manufacturer	SAUER
	Displacement (cm <sup>3</sup> /rev.)	22.8
	ECU:	
	Ratio	4/1
	Grease: AMBRA GR75MD	1.2 kg
Toe-in adjustment		from the ground
Amplitude settings		3
Min. clearance under the frame (mm)		from 2020 to 2820 (depending on the model)
Grape harvesting useful height (mm)		1750
Harvesting tunnel width (mm)		700
Shaking frame width at the front cross-beams (mm)		In front of the mark 0 = 550 (like VL) Fully closed = 510 Fully open = 750
<b>RECEIVING/TRANSPORTATION</b>		
Noria system	Buckets per chain	67
	Type	XXL
	Synchronization	in field speed
Width of flexible stake-guides (mm)		from 195 to 265
Tightness length (mm)		2400
Harvesting min. height (mm)		150
Operation	Motor manufacturer	EATON
	Displacement (cm <sup>3</sup> /rev.)	500
Harvesting conveyors	Width (mm)	600
	Max. operating speed rpm	about 750
	Reverse	yes
Single operation	Motor manufacturer	EATON
	Displacement (cm <sup>3</sup> /rev.)	31.6

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