

SERVICE MANUAL

VL5060 / VL5080 / VL5090
VL6040 / VL6050 / VL6060 / VL6070 / VL6080 / VL6090
VM3080 / VM3090 / VM4090
VN2090
Grape Harvesters

Print No. 84189523B



Document content

This document contains:

- all documentation for machines VL 6040, 6050, 6060, 6070, 6080, 6090; VL 5090; VM 4090, 3090 and VN 2090
- **Starting only from series 013** for the models VL 5080 and 5060; VM 3080 (these machines are equipped with "ELTEC" panel)
- VM3080H: means high machine (Alsace)
- VL6050, 6070, 6080 high machines (Italy)
- **Only starting from series 664, 660, 656042; 636013; 650011; 655, 653, 633, 635018**, installation of the "ROPS" cab

Machine name change Correspondence

Previous name	New name
VL 660 Up to series 024	VL 6090 Starting from series 025
VL 640 Up to series 022	VL 6080 Starting from series 023
VL 630 Up to series 022	VL 6070 Starting from series 023
VL 620 Up to series 021	VL 6060 Starting from series 022
VL 610 Up to series 021	VL 6050 Starting from series 022
VL 600 Up to series 004	VL 6040 Starting from series 005
VL 570 Up to series 008	VL 5090 Starting from series 009
VM 460 Up to series 008	VM 4090 Starting from series 009
VM 370 Up to series 008	VM 3090 Starting from series 009
VN 300 Up to series 003	VN 2090 Starting from series 004
VL 550 Up to series 008	VL 5080 Starting from series 009
VL 540 Up to series 008	VL 5060 Starting from series 009
VL 530 Up to series 008	
VM 340 Up to series 008	VM 3080 Starting from series 009

REPAIR MANUAL

CONTENTS

Section	Description
	Specifications
00	Maintenance
05	Machine arrangement
10	Engine
29	Hydrostatic transmission
33	Brakes
35	Hydraulic system
39	Frame
41	Steering
44	Wheels
50	Cab
55	Electrical system
58	Harvesting equipment
60	Product feeding
74	Cleaning
80	Hoppers
88	Accessories

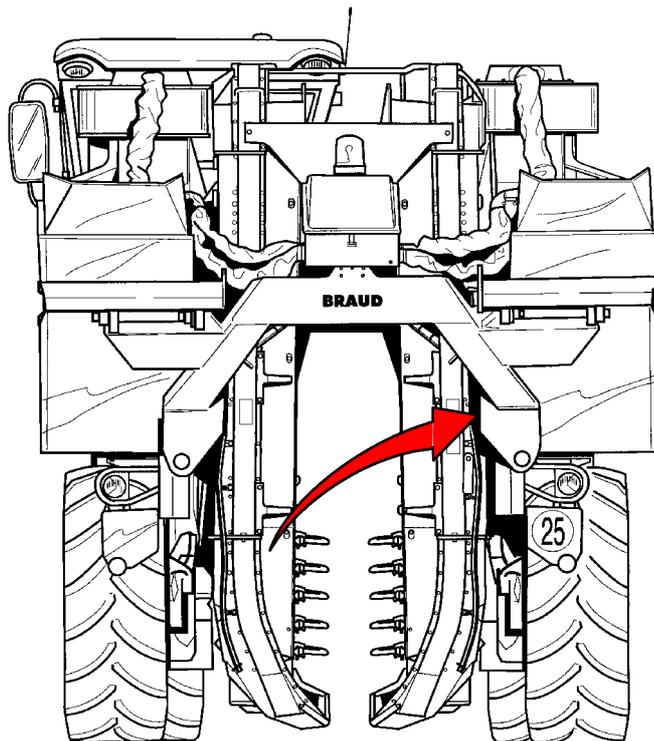
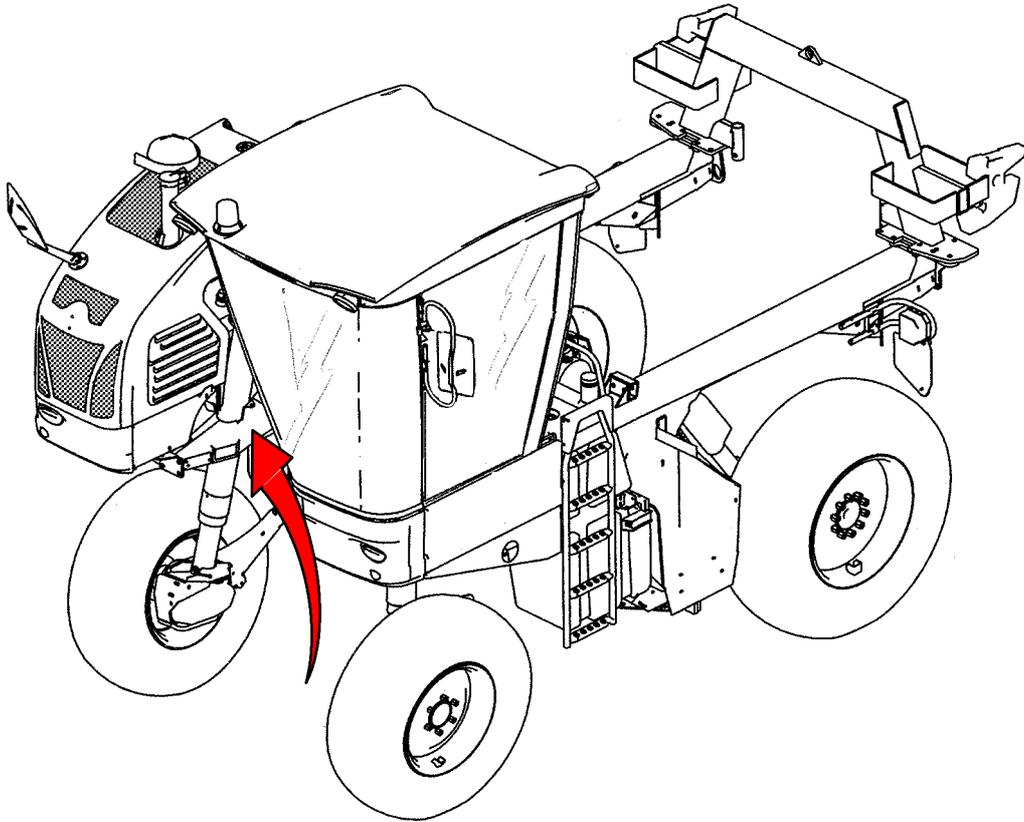
SPECIFICATIONS

Chapter 1

CONTENTS

Section	Description	Page
	Machine identification data	3
	Dimensions	4
	Main specifications, from VL6040 to 6090, VM4090	10
	Harvesting equipment main specifications, from VL6040 to 6090, VM4090	13
	Main specifications, from VL5090,5080, 5060; VM3080, 3080H, VN2090	17
	Harvesting equipment main specifications, VL5090,5080, 5060 VM3080, 3080H VN2090	21

VM 3080H = High version



B 01 /10

MACHINE IDENTIFICATION DATA

Model	Type	Serial no.	Machine number
VL 6090	664	025	001
VL 6080	660	023	001
VL 6070	660	023	001
VL 6060	656	022	001
VL 6050	656	022	001
VL 6040	650	004	001
VM 4090	636	009	001
VL 5090	655	009	001
VL 5080	653	013	001
VL 5060	653	013	001
VM 3090	635	009	001
VM 3080	633	013	001
VN 2090	643	001	001

New numbering starting from the installation of cabs with roll-over-protection structure "ROPS"

H A G	00	664	E	00	042	001
COEX code	Free = 00	Type	Code letter	Free	Series	Number

Models 6080; 6070 and 6050 come in high version as well (for Italy)

Note: the harvesting equipment number is the same as the self-propelled machine one.

A = manufacturer's label

B = stamped frame number. This number is the same as the one of the plate, excluding models VM 3080H (Alsace), that also include the letter H

OPERATOR'S MANUAL

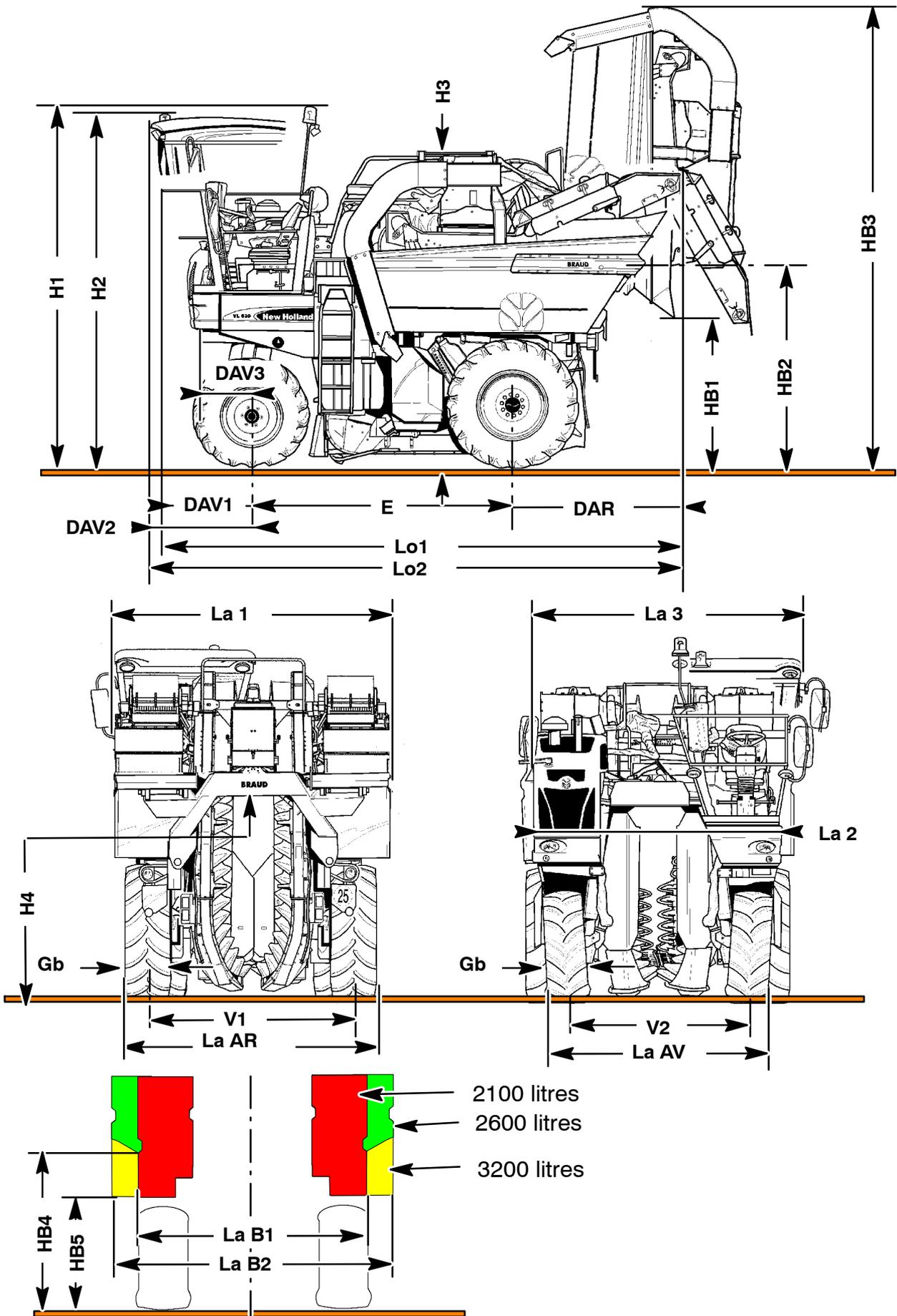
VL 6040, from 6050 to 6090 and VM 4090: 84171520 (F)

VL 5090, 5080, 5060 and VM 3090, 3080: 84155261 (F)

VN 2090: 87612978 (F)

REPAIR MANUAL

French: 84189524, English: 84189523, Italian: 84189522, Spanish: 84189525, German: 84189526



COMMERCIAL DESCRIPTION		From VL6040 to 6090	VM4090
Code	DIMENSIONS (mm)		
H1	Height: without cab		
H2	(harvesting equipment on the ground) with/cab at the revolving beacon	3635 (3870*)	
H3	Harvesting equipment height at the railings without (with) destemmers	3380 (3520)(3590*)	
H4	Clearance under the harvesting equipment	from 2000 to 2600 2260 from 2760*)	
HB1	Clearance under tilted up hoppers	1710 (1950*)	
HB2	Tilting axle height	2100 (2350*)	
HB3	Max. height with lifted hoppers	5150	
HB4	Clearance under the frame hoppers, 2600 litres	1840	
HB5	Clearance under the frame hoppers, 3200 litres	1415 (1670*)	
E	Pitch	2850	
La1	Max. width at the hoppers	hoppers, 2100 litres 2100 litres + cab 2600 litres or 3200 litres	2800 (1) 3000 3000
La2	Max. width from cover to cover	Only self-propelled machine	2590 2390
La3	Max. width from cab top to right cover	Only self-propelled machine	2830 2630
LaB1	Hopper width	2100 litres	2530 2330
LaB2		2600 litres	3000 2800
		3200 litres	3000
La AR	Outer width at the rear wheels: (V1 + Gb = La AR)	Tyres 420/85 R28 Tyres 480 / 70 R 28 Tyres 540/65 R28 Tyres 600/55-30.5	(*) (3) 2160 + 454 = 2614 1790 + 454 = 2244 2260 + 480 = 2740 1860 + 480 = 2340 2340 + 540 = 2880 (2468 + 540 + 3008*) 2360 + 600 = 2960
La AV	Outer width at the front wheel level on ground: (V2 + Gb = La AV) (V2 at ground level)	Tyres 420 / 70 R24 Tyres 13.6 R24	1930 + 420 = 2350 1730 + 420 = 2150 1930 + 350 = 2280 1730 + 350 = 2150
Lo1	Max. length without (with) destemmers	without cab with/cab	5360 (5510) 5490 (5650)
DAV1	Front offset	without cab	930
DAV2		with/cab	1070
DAV3	Offset of front supports for multipurpose		277
DAR	Rear offset without (with) destemmers		1570 (1730)

Note: in road position, the noria is at 190 mm from the ground

(1) Tyres 420/85 R28

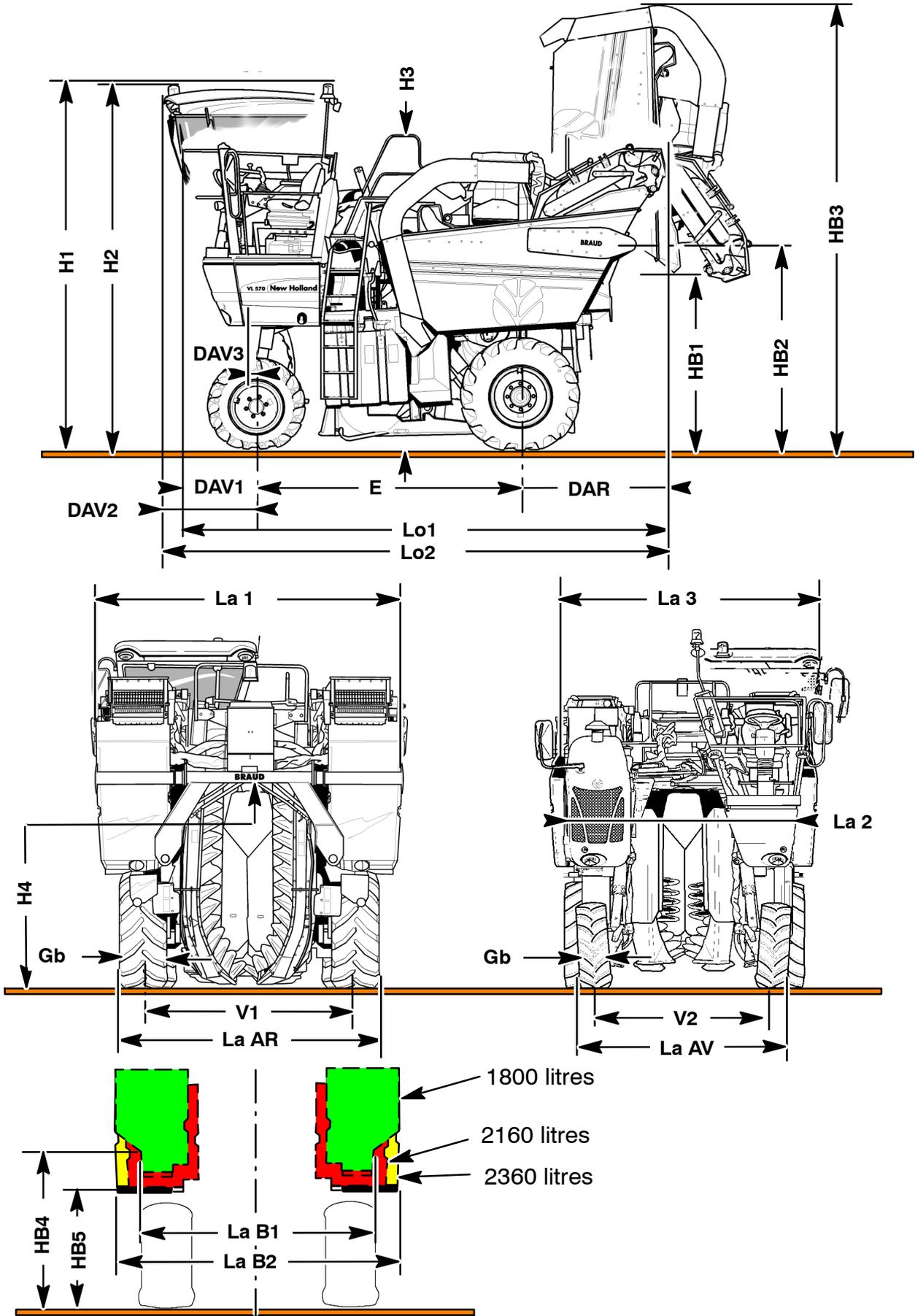
(3) Bearings on large track

(2) Tyres 480/70 R28

(4) Bearings on narrow track

(*) large track = narrow track + 160 mm

(---*) values detected for raised VL (Italy)



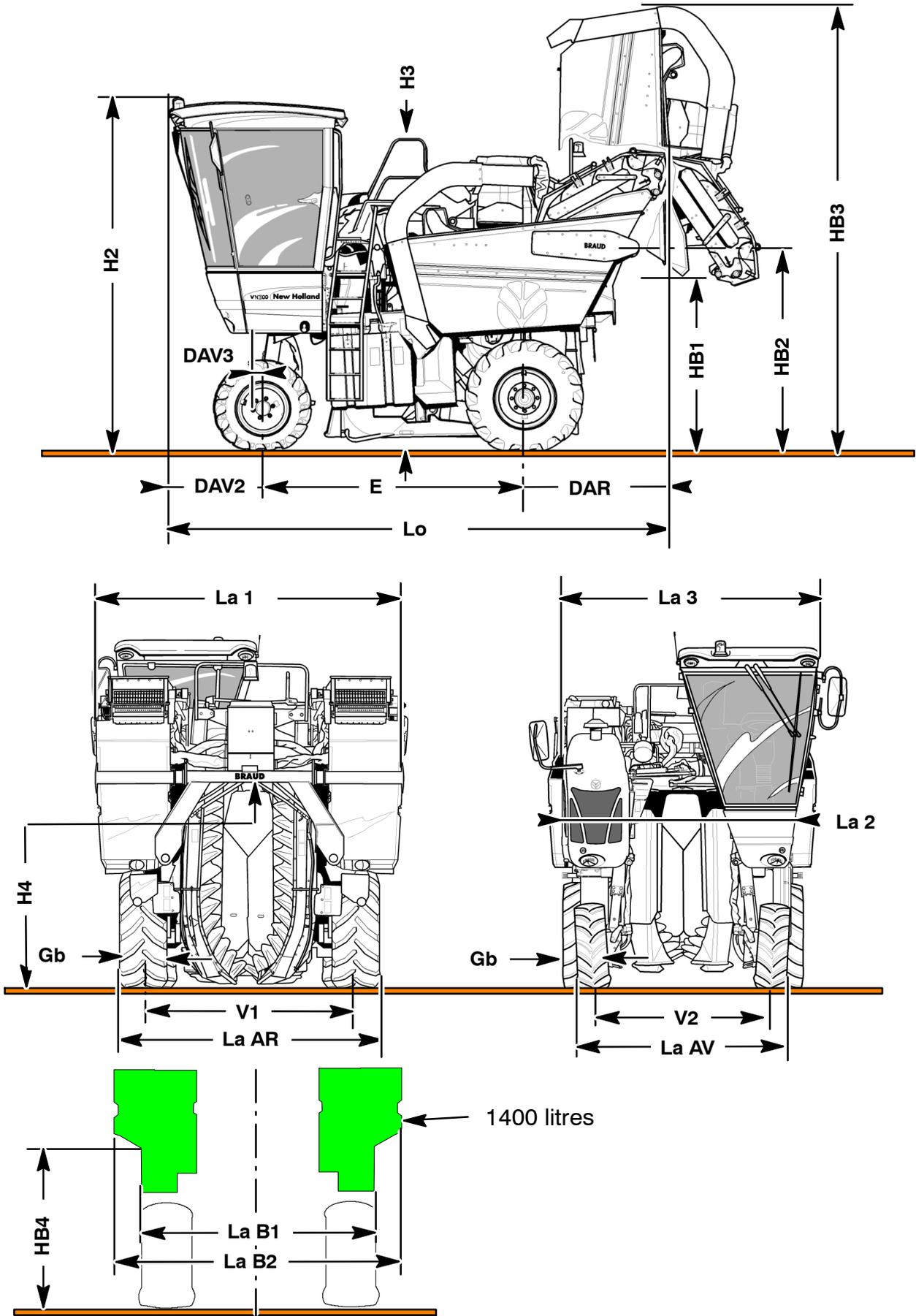
COMMERCIAL DESCRIPTION			VL5090/VL5080, 5070, 5060	VM3090 / 3080
Code	DIMENSIONS (mm)			
H1	Height:	without cab (at the revolving beacon)	3160 (3745)	3040 (3615)
H2	(harvesting equipment on the ground)	with cab at the revolving beacon	3605	3475
H3	Harvesting equipment height at the railings		3285	3185
H4	Clearance under the harvesting equipment		from 1950 to 2450	from 1800 to 2300
HB1	Clearance under tilted up hoppers		1830 / 1730	1700 / 1600
HB2	Tilting axle height		2110	1980
HB3	Max. height with lifted hoppers		4620	4490
HB4	Clearance under the frame hoppers, 1800 litres		1700	1550
HB5	Clearance under the frame hoppers, 2160 litres		----	1150
	hoppers, 2360 litres		1150	----
E	Pitch		2760	
La1	Max. width at the hoppers	hoppers, 2360 litres	3000	2800
		2360 litres + cab	3000	2800
La2	Max. width from cover to cover	Only self-propelled machine	2540	2340
La3	Max. width from cab top to right cover	Only self-propelled machine	2750	2540
LaB1	Hopper width	1800 litres	2480	2290
LaB2		2160 litres	----	2800
		2360 litres	3000	----
La AR	Outer width at the rear wheels: (V1 + Gb = La AR)	Tyres 11.2 R 24 (1)	----	1680 + 291 = 1971
		Tyres 11.2-24 T35	----	1680 + 305 = 1985
		Tyres 340/85 R24	----	1780 + 366 = 2146
		Tyres 420 / 70 R24	2090 + 431 = 2521	----
		Tyres 460/70 R24	2120 + 462 = 2582	----
		Tyres 480/65 R24 (2)	2120 + 484 = 2604	----
La AV	Outer width at the front wheel level on ground: (V2 + Gb = La AV) (V2 at ground level)	Tyres 280/70 R20		1720 + 275 = 1995
		Tyres 320/70 R20	1920 + 315 = 2235	1720 + 315 = 2035
Lo1	Max. length without (with) destemmers	without cab	4900 (5090)	
Lo2		with cab	4990 (5180)	
DAV1	Front offset	without cab	880	
DAV2		with cab	970	
DAV3	Offset of front supports for multipurpose		40	
DAR	Rear offset without (with) destemmers		1260 (1450)	

NOTE:

in road position, the noria is at 200 mm from the ground

(1) not produced anymore

(2) an additional equipment with destemmers on a VL5090 machine equipped with 480 / 65 R 24 tyres is not allowed.



COMMERCIAL DESCRIPTION		VN2090	VM 3080 H
Code	DIMENSIONS (mm)		
H1	Height: without cab		3160 (3745)
H2	(harvesting equipment on the ground) with cab at the revolving beacon	3475	3605
H3	Harvesting equipment height to the railings	3025	3285
H4	Clearance under the harvesting equipment	from 1500 to 2000	1950 to 2450
HB1	Clearance under tilted up hoppers (under the destemmers)	1735 (1570)	
HB2	Tilting axle height	1965	2110
HB3	Max. height with lifted hoppers	4490	
HB4	Clearance under the frame hoppers, 1400 litres	1340	1150
E	Pitch	2740	2760
La1	Max. width at the hoppers	2400	
La2	Max. width from cover to cover Only self-propelled machine	2090	2340
La3	Max. width from cab top to right cover Only self-propelled machine	2300	
LaB1 LaB2	Hopper width	2017 2400	
La AR	Outer width at the rear wheels: (V1 + Gb = La AR) Tyres 340/85 R24	1540 + 365 = 1905	1780 + 366 = 2146
La AV	Outer width at the front wheel level on ground: (V2 + Gb = La AV) (V2 at ground level) Tyres 320/70 R20	1480 + 315 = 1795	1720 + 275 = 1995
Lo	Max. length without (with) destemmers with cab	4930 (5210)	
DAV1 DAV2	Front offset without cab with cab	980	
DAV3	Offset of front supports for multipurpose	40	
DAR	Rear offset without (with) destemmers	1210 (1490)	

NOTE: in road position, the noria is at 200 mm from the ground

VM 3080 H = high machine, without destemmer option

COMMERCIAL DESCRIPTION		From VL6040 to 6090	VM4090
WEIGHTS			
PTAC - Total allowed weight under load (kg) (1) (2)		from 9200 to 10500	from 9200 to 9600
Allowed partition (2)	Front axle (kg)	from 3980 to 4200	from 3980 to 4200
	Rear axle (kg)	from 5380 to 7300	from 5380 to 5540
Empty weight (kg) with harvesting equipment VL6040 (from VL6050 to 6090)		8200 (8660)	8660
- with hoppers (litres), standard wheels and cab, but without destemmers and without lower extractors.		2600	2200
- with destemmers, add ... (kg)		460	460
(1) up to 10000 kg for VL6040 and up to 10500 kg for VL from 6050 to 6090			
(2) depending on the tyres and on the load index			
FEEDING / EXHAUST			
Fuel tank	Used fuel Capacity (litres)	Diesel fuel 250	
Engine (cylinders)		6	4
- ISO power (kW/CV)		VL6050 and 6060 = 107/145	94/128
- Displacement = 1125 cm ³ /cylinder		VL6070 and 6080 = 120/160	
		VL6090 = 129/175	
Empty operating speed +/- 50 (rpm)		2500	2500
Air filter	Make Type	DONALDSON ELB 12-0265	
Engine cooling	Water capacity (litres) Fan	Sucking	
Cooling fan Ø (mm)		610	584
DRIVE			
Pump for engine fan	Make Displacement (cm ³ /rev.) Empty operating speed (rpm) Capacity (l/minute), output 0.9	SAUER 17 (1.02 x engine speed) 38	
Fan motor	Make Displacement (cm ³ /rev.)	SAUER 12.2	
Variable displacement inch- ing hydraulic pump	Make Type Total displacement (cm ³ /rev.)	REXROTH A4VG from 0 to 105	

COMMERCIAL DESCRIPTION		From VL6040 to 6090	VM4090
DRIVE (follows)			
Priming pump	Displacement (cm ³ /rev.)	26	
	Capacity (l/minute), output 0.9	58.5	
Front wheel motor	Make	POCLAIN	
	Type	MS 08	
	Displacement (cm ³ /rev.)	1043	
Rear wheel motor	Make	POCLAIN	
	Type	MSE 18	
	Displacement (cm ³ /rev.)	2636 (1406/1230)	
Max. speed (km/h) in road position		25 km/h	
Max. speed in field position		12	
Hydraulic oil			
Capacity (litres)	Reservoir	65	
Oil type	New Holland	Hydrosystem 68 Hydrosystem 68 BIO S	
Conveyor and extractor pump	Make	REXROTH	
	Displacement (cm ³ /rev.)	"Load sensing" from 0 to 45	
	Empty operating speed (rpm)	2500 (see engine speed)	
	Capacity (l/minute), output 0.9	101.2	
Shaking pump	Make	SAUER	
	Displacement (cm ³ /rev.)	22	
	Empty operating speed (rpm)	2500 (see engine speed)	
	Capacity (l/minute), output 0.9	49.5	
Pump for steering/lifting/hoppers	Make	SAUER	
	Displacement (cm ³ /rev.)	14	
	Empty operating speed (rpm)	(1.02 x engine speed)	
	Capacity (l/minute), output 0.9	32	
STEERING		Hydrostatic	
Type		EATON QAMP 146 cm ³ /rev.	
BRAKING SYSTEM			
Service brake		Supplied by the hydrostatic transmission	
Parking brake (acting on both rear wheels)		Operated by ONE pedal and by the steering	
Park brake		Operated by left manual lever	

COMMERCIAL DESCRIPTION	From VL6040 to 6090	VM4090
TILTING CORRECTION	30%	
PLATFORM CAB		
Heated and A/C cab	Depending on the model	
Activated charcoal filter	Optional	
Board computer	●	
Grand-Luxe seat		
Pneumatic seat	●	
Multifunctional handle	●	
LIGHTING AND WARNING LIGHTS		
High/low beams	2	
Front parking lights	2	
Rear parking lights	2	
Direction indicator warning lights	Front	2
	Rear	2
	Side	2
Stop lights	2	
License plate light	1	
Reflector	Rear	2
Revolving beacon	2	
Supply voltage	(V)	12
Alternator	(A)	120
Battery	(Ah)	180
Starting presetting	(A)	1000

COMMERCIAL DESCRIPTION		VL6040	From VL6050 to 6090	VM4090
HARVESTING EQUIPMENT				
HARVESTING HEADER				
Harvesting header hour counter		No	Yes	
Type		Swinging, self-aligning		
System		SDC shaking		
Number of shakers		14		
Straight/elbow connecting rod		13/1		
Shaking start	Motor manufacturer	EATON	SAUER	
	Displacement (cm ³ /rev.)	46	22	
	Control unit:		1/4	
	- ratio		AMBRA GR75MD 1.2 kg	
	- grease			
	Chain:	•		
Toe-in adjustable from the operator's seat		No	yes	
Amplitude settings		4 or 3		
Min. clearance under the frame (mm)		2000		
Grape harvesting useful height (mm)		1650		
Harvesting tunnel width (mm)		500		
Noria system	Buckets per chain	63	61	
	Type	XXL	small	
	Synchronization	in field speed		
	Drive gears:	16/59		
Width of flexible stake-guides (mm)		from 195 to 265	from 165 to 235	
Tightness length (mm)		2100		
Harvesting min. height (mm)		150		
Operation	Motor manufacturer	EATON		
	Displacement (cm ³ /rev.)	500		
Harvesting conveyors	Width (mm)	600		
	Max. operating speed rpm	about 750		
	Reverse	yes		
Single operation	Motor manufacturer	EATON		
	Displacement (cm ³ /rev.)	31.6		

COMMERCIAL DESCRIPTION		From VL6040 to 6090	VM4090
RECEIVING / TRANSPORTATION			
Noria system	Buckets per chain	63	61
	Type	XXL (from 6040 to 6090)	small
	Synchronized Drive gears	in field speed 16/59	in field speed 16/59
Width of flexible stake-guides (mm)		from 195 to 265	from 165 to 235
Tightness length (mm)		2100	
Harvesting min. height (mm)		150	
Operation	Motor manufacturer	EATON	
	Displacement (cm ³ /rev.)	500	
Harvesting conveyors	Width (mm)	600	
	Max. operating speed rpm	about 750	
	Reverse	yes	
Single operation	Motor manufacturer	EATON	
	Displacement (cm ³ /rev.)	31.6	
2 upper extractors with removable stalk choppers	Diameter (mm)	460	
	Operation	hydraulic	
	Motor manufacturer	SAUER	
	Displacement (cm ³ /rev.)	11	
2 lower extractors with	Diameter	430	
	Operation	Hydraulic	
	Motor manufacturer	SAUER	
	Displacement (cm ³ /rev.)	6	
2 independent stalk choppers, enabled by shaking	Operation	Hydraulic	
	Motor manufacturer	EATON	
	Displacement (cm ³ /rev.)	8.2	
	Rotation direction	reverse to the wheels	

COMMERCIAL DESCRIPTION		From VL6040 to 6090	VM4090
RECEIVING / TRANSPORTATION (follows)			
HOPPERS			
Capacity (litres)	2 x 1600		
	2 x 1300		2 x 1300
	2 x 1050		2 x 1050
Electrically-operated distribution auger		Control independent of the grape harvester	
Separating destemmers			
- Belt drive	Motor Displacement (cm ³ /rev.) Speed	EATON 59	
- Distributor drive	Motor Displacement (cm ³ /rev.) Speed	EATON H plus 36	

COMMERCIAL DESCRIPTION		VL5090 / 5080, 5060	VM3090 / 3080	VN2090
WEIGHTS				
PTAC - Total allowed weight under load (kg) (1)		8000 to 8300 / 7800 to 8000		7900
Allowed partition	Front axle (kg) (1)	3100 to 3440		3400
	Rear axle (kg) (1)	4600 to 5200		4600
Empty weight (kg) with harvesting equipment		6780 to 7140 / 6340 to 6620		6760
- Front axle		2740 to 2980 / 2480 to 2980		
- Rear axle		3920 to 4160 / 3740 to 4580		
- with destemmers, add (kg)		580		460
(1) depending on the tyres and on the load index				
FEEDING / EXHAUST				
Fuel tank	Capacity (litres)	160		
Engine (cylinders)		4		
- Power ISO (kW/CV)		94/128		
- Displacement (cm ³)		4485		
Empty operating speed +/- 50 (rpm)		2500		
Air filter	Make	DONALDSON		
	Type	FPG090225		
Engine cooling	Liquid capacity (litres)			
	Sucking fan	●		
Air/air intercooler		●		

(1) up to series 008, VL 530 is equipped with TIER2 engine, 74 kW/100 CV without intercooler

COMMERCIAL DESCRIPTION		VL5090 / 5080, 5060	VM3090 / 3080	VN2090
DRIVE				
Variable displacement inching hydraulic pump	Make Displacement elimination Operation Total displacement (cm ³ /rev.)	REXROTH A4VG90 ● control 90		
Priming pump	Displacement (cm ³ /rev.) Capacity (l/minute), output 0.9	25 56.25		
Front wheel motor	Make Type Displacement (cm ³ /rev.)	POCLAIN MSE 05 688		
Rear wheel motor	Make Type Displacement (cm ³ /rev.)	POCLAIN MSE 11 843/843		
Double steering valve		●		
Front drive wheels in road position		●		
"Twin lock" antiskid		●		
Torque reduction on front wheels		●		
Capacity divider 50/50 right/left		NO	NO (1) ●	●
Max. speed in road position, (km/h)		25	25	20
Max. speed in field position, (km/h)		11		
Hydraulic oil				
Capacity (litres)	Reservoir	65		
Oil type	New Holland	Hydrosystem 68 Hydrosystem 68 BIO S		
Hydraulic filtering (intake/return)		●		

(1) the capacity divider is available on VM 3080 H only

COMMERCIAL DESCRIPTION		VL5090 / 5080, 5060	VM3090 / 3080	VN2090
DRIVE (follows)				
Conveyor and ex-tractor pump	Make Displacement (cm ³ /rev.) Empty operating speed (rpm) Capacity (l/minute), output 0.9	SAUER 44 engine speed 99		
Double pump - for shaking	Make Displacement (cm ³ /rev.) Empty operating speed (rpm) Capacity (l/minute), output 0.9	SAUER 22 (1.02 x engine speed) 50.49		
- for steering/ lifting/hoppers	Displacement (cm ³ /rev.) Empty operating speed (rpm) Capacity (l/minute), output 0.9	11 (1.02 x engine speed) 25.24		
STEERING		Hydrostatic		
Type	Make Displacement (cm ³ /rev.)	EATON 100		
BRAKING SYSTEM				
Service brake	Supplied by the hydrostatic transmission			
Parking brake (acting on the two rear wheels)	•			
Park brake	manual control, on the left			
Electrically-operated independent brakes	No			
TILTING CORRECTION				
Max. tilting (%)	25			
Max. tilting in road position (%)	8			
Max. tilting in work position (%) (with destemmers or special implements and front wheels with ballasts)	32			
FRAME				
Harvesting header quick uncoupling	Yes / No			
Link fitting possibility	• (1)			No
Front and rear tracks = see relevant SB	•			No

(1) VM3080 H excluded

COMMERCIAL DESCRIPTION		VL5090 / 5080, 5060	VM3090 / 3080	VN2090
HARVESTING EQUIPMENT				
HARVESTING HEADER				
Harvesting header hour counter		yes		
Type - swinging, self-aligning		•		
SDC shaking system		•		
Number of shakers		14	12 / 14 (1)	10
Straight/elbow flexible connecting rod		13/1	11/1 / 13/1 (1)	9/1
Shaking start	Motor:	SAUER		EATON
	Displacement (cm ³ /rev.)	22 / 46 (2)		46
	Reducer control unit:	1/4		
	- ratio	AMBRA GR75MD 1.2 kg		
	- grease	• (2)		•
	Chain:			
Toe-in adjustable from the operator's seat		Yes / No (3)		No
Amplitude settings		3	3	1
Removable shakers, optional		Yes / No (3)		No
Clearance under the frame (min./max. mm)		1950/2450 - 1800/2300 (4)		1500/2000
Grape harvesting useful height (mm)		1200	1100	1050
Harvesting tunnel width (mm)		500		300
RECEIVING / TRANSPORTATION				
Noria system	Large buckets	55		
	Small buckets		53	54
	Fastening by rivets	2 x 2	1 x 3	1 x 3
	Drive gears	17/58	16/59	16/59
Stake-guides width (mm)		flexible 195/265	flexible 165/235	fixed 165
Tightness length (mm)		1750		1900
Harvesting min. height (mm)		150		
Operation	Motor	EATON		
	Displacement (cm ³ /rev.)	395		

(1) 14 shakers for VM 3080 H only

(2) The shaking is operated by chain on models VL5060 and VM3080. The models VM5090, 5080 and VM3090 - 3080H are operated by ECU

(3) The gauge is electric and can be deactivated only on models VL5090, 5080 and VM3090, 3080H

(4) from 1950 to 2450 for the models VL and VM3080 H only

COMMERCIAL DESCRIPTION		VL5090 / 5080, 5060	VM3090 / 3080	VN2090
RECEIVING / TRANSPORTATION (follows)				
Harvesting conveyors Single operation	Width (mm)	450		
	Speed (max. rpm)			
	Reverse	Yes	No	
	Motor	EATON		
	Displacement (cm ³ /rev.)	31.6		
CLEANING				
2 upper extractors with removable stalk choppers	Diameter (mm)	430		
	Motor	SAUER		
	Displacement (cm ³ /rev.) (*)	8/11/14	8/14	8/14
	Speed adjustment	electrically operated		
2 lower extractors (optional)	Diameter (mm)	430		
	Motor	SAUER		
	Displacement (cm ³ /rev.)	6		
	Speed adjustment:	electrically operated		
2 independent stalk choppers, enabled by noria in proportional	Motor	EATON		
	Displacement (cm ³ /rev.)	8.2		
HOPPERS				
Capacity (litres)		2 x 900	2 x 900	2 x 700
		2 x 1180	2 x 1080 2 x 735 (1)	
Distribution auger	Motor	EATON		
	Displacement (cm ³ /rev.)	31.6		
	Speed	adaptable		
Separating destemmers	- Belt drive	Motor	EATON	
		Displacement (cm ³ /rev.)	59	
		Speed		
	- Distributor drive	Motor	EATON H plus	
		Displacement (cm ³ /rev.)	36	
		Speed		

(*) (depending on the outfit) (see section 35).

From VM 3080H

SECTION 00 - MAINTENANCE

Chapter 1

CONTENTS

Section	Description	Page
	Lubricant and liquid capacities	2
	Thermal engine maintenance	3
	Harvesting equipment greasing point location	5
	Machine washing	9
	Hydrostatic and hydraulic system maintenance	13
	Routine maintenance and winter storage	15

LUBRICANT AND LIQUID CAPACITIES

Item to be supplied	Quantity	Recommended product	Corresponding international classification
Self-propelled machine grease fittings		Grease AMBRA GR 9	Lithium-calcium based grease, consistency NLGI 2
Harvesting machine grease fittings		Grease Food type	24 cartridges re. 62777339
Noria ECU	1 kg		
Shaking rear connecting rod articulations		Grease (*)	Teflon silicone grease Sitef degree 3 410-g cartridge, re. 920019780
Shaking ECU	1.2 kg	AMBRA GR 75 MD NH 720 A	Re. 661874 molybdenum bisulfide grease, consistency NLGI 2
Engine sump and filter/s 6-cylinder engine 4-cylinder engine	16 l 9.5 l	Oil AMBRA MASTER GOLD HSP 15W - 40	SAE 15W40 NH 330H API CI - 4 CH4 ACEA E3/E5
Reservoir	65 l	Oil AMBRA HYDROSYSTEM 68	ISO 68 DIN 51524 - part 2
Cooling system	20 l	AMBRA AGRIFLU (50%) + clean water (50%)	

NOTE: (*)the integrated joints of the rear shaking flexible connecting rods do not require greasing.

THERMAL ENGINE MAINTENANCE

a) After the first 50 hours

- Let the engine run until it reaches the standard operating temperature.
- Replace diesel oil filter cartridge/s.
- Check alternator and compressor belt tension.
Check engine tightness.

b) Every day, or every 10 hours, check:

- oil level,
- coolant level,
- check the cleaning conditions of the radiator core.

c) Every 400 hours, or before each harvesting season:

- engine oil,
- replace oil filter cartridge/s,
- replace diesel oil filter cartridge/s,
- Check the belt tension,
- Check the radiator core cleanliness.
- If the air filter clogging indicator comes on, clean the main cartridge by compressed air, blowing inside out.
Be careful not to use a pressure over 6 bar; shift the nozzle downwards and hold it at about 3 cm from the paper.

d) Only before each campaign:

- replace the air filter main cartridge.

e) Every 1200 hours:

- adjust the tappets,
- adjust the injector setting.

NOTE: the diesel oil filter cartridges should be replaced more often if the diesel oil conditions require it.