SERVICE MANUAL

SB36 / SB56 / SB58
SB60 / SB62 / SB64
Grape Harvester

Part number 6048223100
English
May 2000

HARVESTERS
BRAUD

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BASIC SUPPLY

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TECHNICAL SPECIFICATIONS
Harvesting machines
Self-propelled machines

SB 64 - SB 62 - SB 60 - SB 58 - SB 56 and SB 36

HARVESTER

Disassembling the machine

- The harvester assembly, including the buckets, is mounted on a special frame and fixed in only three points, thus making disassembly operations very easy.
- All hydraulic lines and electric connections between the self-propelled machine and the harvesting group are equipped with fast-couplings.
- Norias motor can be disassembled without touching the flexible lines.

Shaking header

- Operation principle: S.D.C. (Controlled Dynamic System = C.D.S.)

- Shaking header placed on 4 vibration damping supports.

  The frame is made up of the following welded parts:

  - Front
    2 shaker carriers of thick plate, mounted on tight bearings

  - Rear
    The shaker rods are fixed to the thick tube channel and allow the shakers to be deformed separately without mutual interference.

    Real height: 1.25 m with 26 holes to fix the shakers at any level.

- The shakers are made of very flexible nylon material which has been developed with the help of the Bureau d' Etudes BRAUD (BRAUD Research Department). They have two front holding holes and a rear articulation joint.
  - front fixing: two half flanges
  - rear fixing: mix with a rod and a connection
  - shaker diameter: 32 mm

- The two front shaker carriers are controlled by two small rods and two side cams with two inertial flywheels.
  - Impossible offset
  - Easy-to-adjust width (three positions)
  - Quick adjustable convergence

- Shaking frequency control and adjusting from the driver's seat.

- Permanent displaying of shaking frequency on the dashboard panel

Noria collectors

This system is made up of two chains, each with 62 flexible buckets, with speed depending on the machine inching speed.

- two fast couplings to detach the noria-chain assembly and remove the first bucket easily.
- Inching by a hydraulic motor and reduction gearbox (without chain and mechanic limiting devices). Max. torque (300 daNm on noria shaft) is controlled by hydraulic pressure (150 bar).
- operation set through a button from the driver's seat.
- gathering height: 15 cm.
- side guard: stainless plates and plasticized plates.
- rear guard: PVC fenders.
- bucket operating function with standing machine to have them washed and maintained.
- harvesting assembly suspended on two points in the front and in the rear for self-levelling.
- side tilting: .....
- stalk-guide = from 165 with elastic amplitude up to 250 mm.
  = 195 mm with elastic amplitude, up to 265 mm with long edge buckets.

Conveying

- 2 stainless steel side conveyors, with PVC belts, each powered by an hydraulic motor. Width: 600 mm.
- Belt centering kept by another central guide belt.
- Belt rotation reverser.
- Rotation speed displaying on the board computer.

Cleaning

- Lower extractors: Standard SB 64 and SB 58
  Optional SB 62, SB 56 and SB 60

The 430 mm diameter rotor sucks the leaves through a duct in the front gathering channel before they fall into the buckets.
A sarment-chopper is mounted on the entry of each duct.

- Upper extractors: standard on all models.

The rotor has a 460 mm diameter and is equipped with a detachable sarment-chopper.

- rotor speed electrically controlled from the driver's seat (upper and lower extractors are controlled separately).
- speed controlled by the board computer: data relevant to upper or lower or conveyor cleaning operation are displayed alternatively through a selection switch.

Technical specifications

Containers

- Two side containers with independent rear discharge controlled separately by electric push buttons.
- The container can return simultaneously.
- Harvest distribution by means of a large stainless steel auger (180 mm), with low speed and controlled directly by a motor.
- They can be set into operation separately from the harvesting assembly.
- Capacity:
  - 2 x1050 l
  - 2 x1300 l
  - 2 x1600 l excluding SB 36
- Clearance under the container articulation, with lowered machine: 2070 mm.

SELF-PROPELLED MACHINE

Frame

- Square-sized tubular frame with two supporting beams and a front channel.
- Rear channel to stiffen the frame can be easily disassembled with the harvesting assembly.
- Two arms supporting the rear wheels, with articulation on the frame and orientation by means of cylinders, which ensure the possibility to lift the machine on the right or on the left side up to 600 mm. This makes it possible to adjust the machine leaning up to a 30%.
- Height adjusting stops to keep and restore the same operating height.
- Two front legs bearing sliding and rotating wheels, to fix an hydraulic bar with 80 mm tilting.
- A 600-mm machine lifting, synchronised with the corresponding rear side, makes it possible to adjust the leaning up to a 30%.
- The bar is fixed by a lock through a solenoid valve which controls:
  - each leaning position
  - leaning 3rd LED lighting up starting from 20% in slopes
  - electric power cut off.
- Speed ahead, 90° steering angle.

Tyres

EQUIPM.	TYPE OF TYRES	PRESSURE (bar)
	SB 64 - 62 - 60 - 58 - 56	
Standard	Front 13.6 R 24 - 129 A 8 "Tubeless"	2.4
	Rear 16.9 R 28 - 136 A 8 "Tubeless"	1.6
Option 1	Front 420/70 R 24 130 A 8 "Tubeless"	1.6
	Rear 480/70 R 28 140 A 8 "Tubeless"	1.6
Option 2	Front 420/70 R 24 130 A 8 "Tubeless"	1.6
	Rear 540/65 R 28	1.6
Option 3	Front 420/70 R 24 130 A 8 "Tubeless"	1.6
	Rear 580/70 R 28 142 A 8	1.4
Option 4	Front 420/70 R 24 130 A 8 "Tubeless"	1.6
	Rear 580/70 R 26	1
Option 5	Front 420/70 R 24 130 A 8 "Tubeless"	1.6
	Rear 600/55 - 30.5 - PR 8 Tbl Trelleborg T 414 TL	1.1
	SB 36	
Standard	Front 13.6 R 24 129 A 8	2.4
	Rear 14.9 R 30 filled with 75% of Chrysogel	207 litres of Chrysogel
	Max. speed limited at 18 km/h	1.9
Option 1	Front 420/70 R 24 130 A 8 "Tubeless"	1.6
	Rear 480/70 R 28 140 A 8 "Tubeless"	1.6
Option 2	Front 13.6 R 24 129 A 8 "Tubeless"	2.4
	Rear 16.9 R 28 136 A 8 "Tubeless"	1.6
Option 3	Front 13.6 R 24 129 A 8 "Tubeless"	2.4
	Rear 9.5 R 36****	4.0

Wheel tightening torque:
front 31 daNm, thus 42 daNm +10% -20% with non-rotating base nut
Rear 55 daNm, thus 70 daNm +10% -20% with non-rotating base nut

Ratio between rear and front circumferences: it must be between 1.12 and 1.20.

Wheel ballasting
Usually wheel ballasting isn't required. Anyway, in some particular cases, the wheels can be ballasted with liquid.

For ballasting with liquid the wheels equipped with **"Tubeless" tyres** calcium chloride cannot be used.

Mono-ethylene glycol liquids are recommended, with corrosion-preventers such as nitrites ($NaNO_2$).

For example: Ambra Agriflu diluted in water.

Freezing temperature - °C	- 16	- 18	- 25	- 37
% Agriflu	30	33	40	50

Technical features

Inching - Driving

- **SB 64** - Diesel engine with 6 cylinders FIAT 8061 SI 11, water cooling system, turbocharger feeding, 140 CV.
- **SB 62** - Diesel engine with 6 cylinders FIAT 8061 SI 11, water cooling system, turbocharger feeding, 125 CV.
- **SB 60** - Diesel engine with 6 cylinders FIAT 8061 SI 11, water cooling system, turbocharger feeding, 117 CV.
- **SB 58 - SB 56** - starting from chassis numbers 628018001, 6-cylinder engine Fiat 8061 I 25.05 with water cooling system, atmospheric feeding by 102 CV.
- **SB 58 - SB 56 - SB 36** - Diesel engine with 4 cylinders Fiat 8041 SI 25 water cooling system, turbocharger feeding, 108 CV.
- Dry air filter with double cartridge. Filter clogging electric warning signal.
- Electric circuit 12 V, 124 Ah battery and 65 Ah standard alternator, 120 A from series 629072 and 628070.
- Optional: 140 Ah battery with 85 Ah alternator.

Starting from series 629-74, 628-72 and 627010 the alternator is 120 A-type.
Starting from the series 629A41:

- SB 64, 62 and 60 are equipped with engine 8065SE by 150 CV for SB 64 and 130 CV for SB 62 and 60.

Starting from the series 628050:

- SB 56 and 58 shall be equipped with 8061 LE engine by 118 CV net.

Starting from the series 627008:

- SB 36 shall be equipped with 8045 SE engine by 100 CV.
- The 140 Ah battery and the 80 A alternator are included in the standard supply starting from series 629A41, 628044, 627008.
- Fuel tank, 210 l capacity.
- Hydrostatic driving by variable displacement pump with servo-control and relief valve:

SAUER pump 90R 100.
Max. HP valve setting = see sketch of section J

- 4 “POCLAIN” wheel fixed-displacement motors
- Speed Field: 4WD = 11 km/h
  Road: 2WD = 24.5 km/h max. in France and Italy.
  22 km/h in Germany.

Nevertheless, with tyres 14.9 R 30 the max. speed shall be 20 km/h for models SB 56, 58, 60, 62, 64 and 18 km/h for models SB 36.

- In road position, this kind of transmission is equipped with an integral antiskid system between the front and the rear axle.
- Reverse speed is automatically set in 4RM, disregarding the machine driving mode, field or road.

Braking

- 2 emergency brakes, hydraulically controlled, integral with the rear motors.
- Locking in case of booster pressure lacking.
- Separate or simultaneous control by pedals from the driver’s seat.
- Manual stopping locking (parking).
- Front, 2 fixed-displacement “POCLAIN” MS 08 motors on wheels.
- Rear, 2 double-displacement “POCLAIN” MSE 18 motors on wheels.

Hydraulic system

All lines are flexible, thus reducing the number of connections.

- Connections type ORFS (O-ring Face Seal) to reduce the possibility of leakage, apart from the low pressure lines.
- All connections of the harvesting assembly are protected.

Driving platform

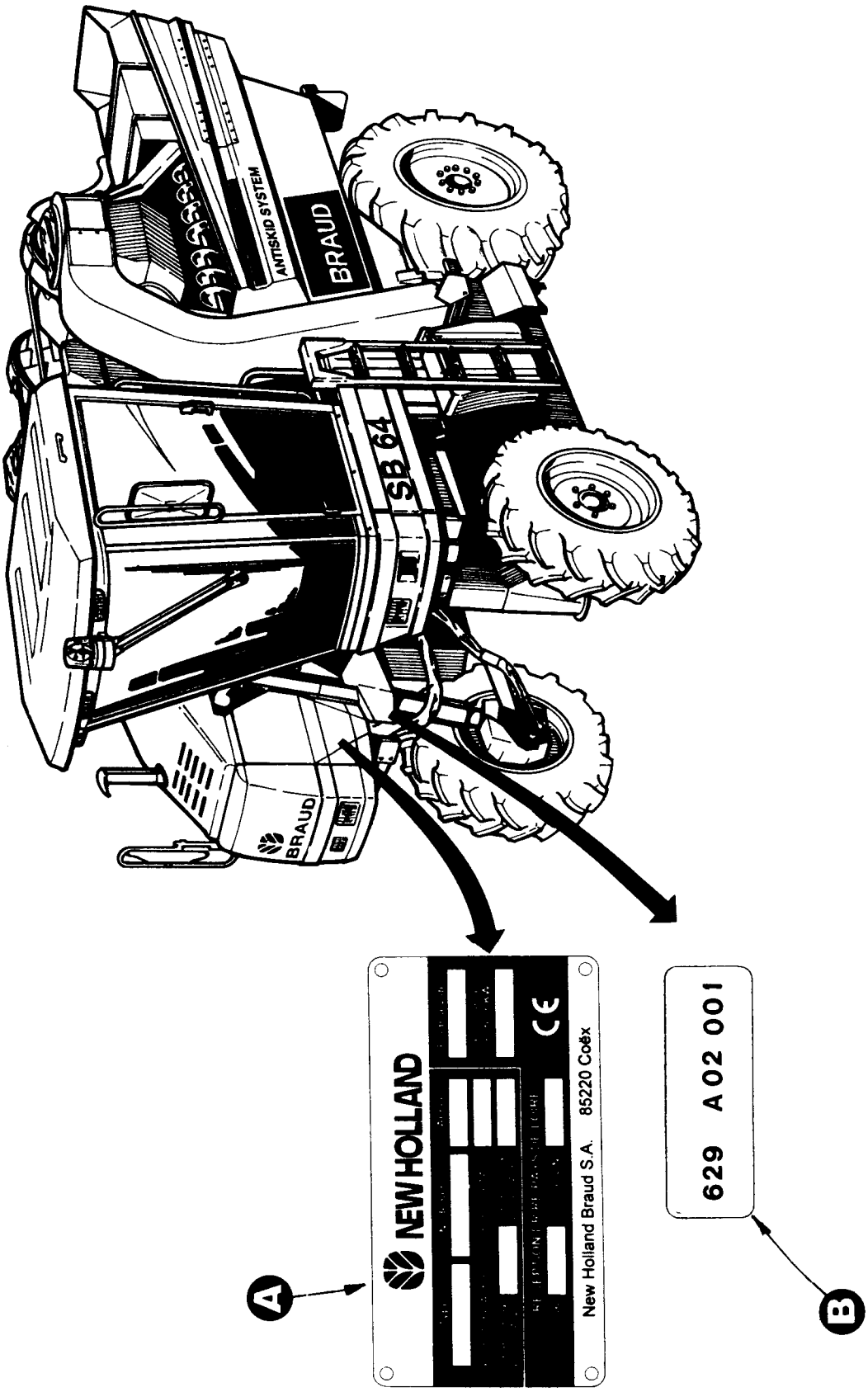
- Driver's seat placed on the front left of the machine, to give an overall view on the vineyard and the headland.
- Standard cab conditioning for SB 64 and SB 58.
- Steering wheel position adjusting.
- No hydraulic element inside the cab (to prevent accidents and noise).
- All tools to operate during the harvesting are controlled by buttons on the inching lever (leaning, shaking, cleaning).
- Electric safety leaning control.
- Compulsory simultaneous stopping of the whole machine assembly.
- Retractable ladder to facilitate getting on the harvesting header.

MULTI-PURPOSE

- These machines are partially multi-functioning, with a harvesting header which can be easily detached.
  - Three fast coupling connections on the hydraulic system.
  - Three fast coupling connection in the electric system.
  - Noria motor disassembling without taking the hoses off.
  - Removable lower fastening of left and right conveyor bearing channels.
  - Removable articulation of the anti-backing bars.

- Possibility to adapt tools of series 2000 with a distribution kit.
- Hydraulic power take off by 30 or 45 CV.

BASIC SUPPLY



MACHINE IDENTIFICATION

Model	Type	Serial number	Machine number of the series
SB 64	629	A02	001
SB 62	629	B03	001
SB 60	629	C12	001
SB 58	628	002	001
SB 56	628	002	001
SB 36	627	002	001
Starting from the following series, the letter of the serial number changes			
Model	**Type**	**Serial number**	**Machine number of the series**
SB 64	629	D54	001
SB 60	629	E53	001
SB 58	628	B50	001
SB 56	628	B51	001
SB 36	627	A08	001

A = Manufacturer's label

B = Stamped frame number

Note: the machine number on the manufacturer's data plate can be different depending on type of tyres installed and thus on the max. speed on road.
Example: in model SB 36 with rear wheels 16.9 R28, the number shall be 627 A10 **0**01
in model SB 36 with rear wheels 14.9 R30, the number shall be 627 A10 **1**01

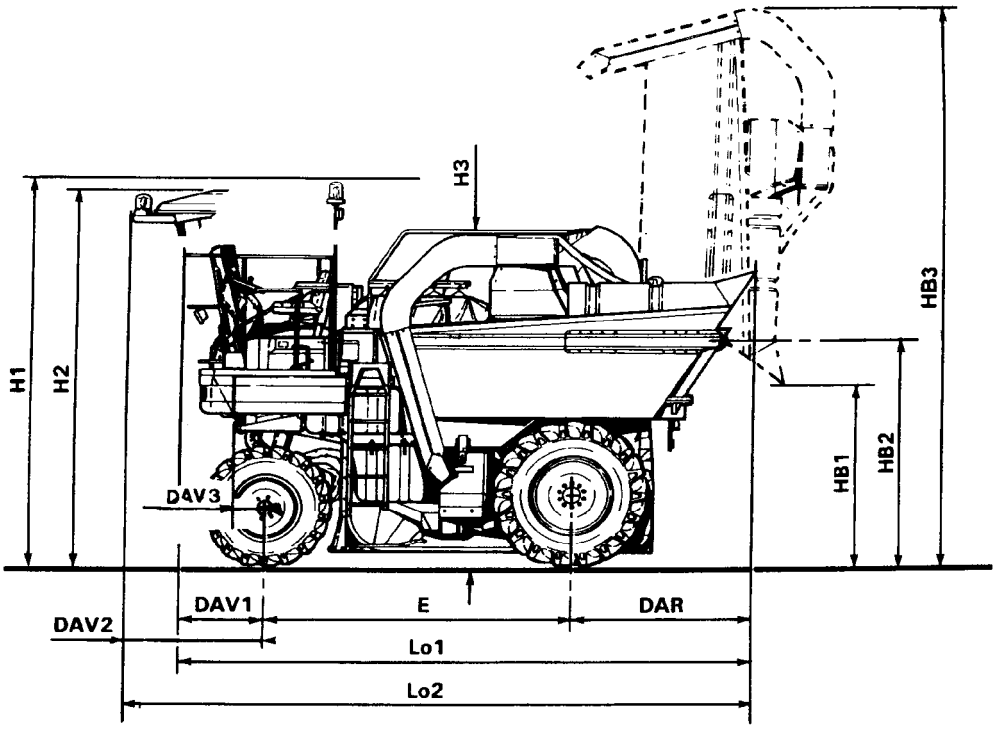
OPERATOR'S MANUAL

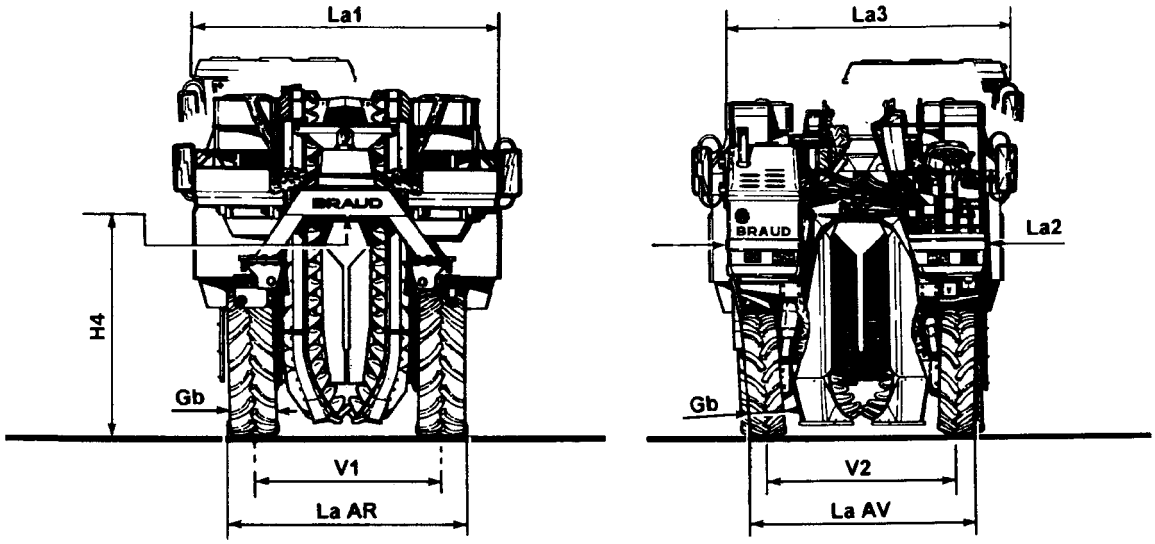
Print no.: 604 80 101 00 (GB) 97

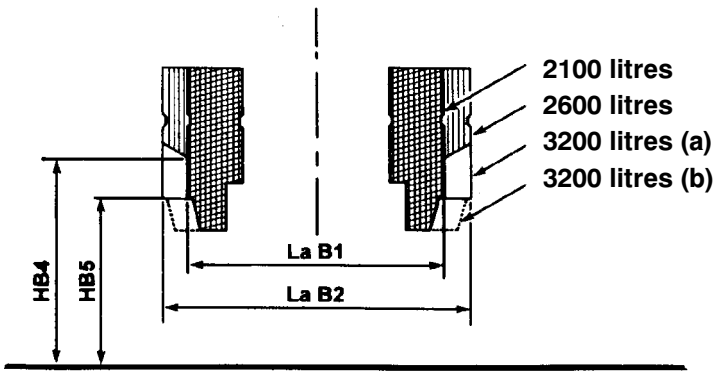
SPARE PART CATALOGUE

Print no.: 604 81 055 00

BASIC SUPPLY







COMMERCIAL DESCRIPTION			SB 64	SB 60 SB 62	SB 58	SB 56	SB36
SELF-PROPELLED MACHINE							
Code	**DIMENSIONS (mm)**						
H1	Height:	w/out cab		3650		3650	
H2	(low harvesting header)	with cab	3530	3530	3530	3530	
H3	Harvesting header at railings height		3240				
H4	Clearance under harvesting header		from 2000 to 2600				
HB1	Clearance under tilted up containers		1640				
HB2	Tilting axle height		2040				
HB3	Lifted container max. height		5040				
HB4	Height under	2600 l container clearance	1750				
HB5	Height under	3200 l container clearance	1370				
E	Pitch / c/c		2860				
La1	Total width	Containers 2100 l w/out cab	2650				2510
		2100 l + cab	2770				2570
		2600l or 3200 l	3000				2800
La2	Total width	Only self-propelled w/out cab	2560				2360
La3	Total width	Only self-propelled with cab	2790				2590
LaB1	Container width	2100 l	2530				2330
LaB2		2600 l or 3200 l	3000				2800
La AR	Outer width at rear wheels level: (V1 + Gb = La AR)	Tyres 14.9 R 30 Standard (Kléber) (misalign. = 130 mm)					1800+370 = 2170
		Narrow (Kleber) (misal. = 145 mm)					1750+370 = 2120
							2230
		Super-Narrow 9.5 R 36 (misal. = 129 mm)					1800+250 =2050
		Tyres 16.9 R 28		2000+430 = 2430			
		Tyres 480 / 70 R 28		2090+480 = 2570			
		Tyres 540 / 65 R 28		2180+550 = 2730			
		Tyres 580 / 70 R 26		2130+580 = 2710			
		Tyres 600x55x30.5		2200+600 = 2800			
La AV	Outer width at front wheels level: (V2 + Gb = La AV) (V2 at ground level)	Tyres 13.6 R 24 Standard (Goodyear)		1870+350 = 2220			1670+350 = 2020
		Narrow (Goodyear)					1630+350 = 1980
		Tyres 420 / 70 R 24		1870+420 = 2290			
Lo1	Total length:	w/out cab		5270		5270	
Lo2		with cab	5710		5710		
DAV1	Front misalignment:	w/out cab		840		840	
DAV2			1280		1280		
DAV3	Front multi-purpose support misalignment		300				
DAR	Rear misalignment		1570				

	THERMAL ENGINE	SB 64 - SB 62		SB 58 - SB 56 - SB 36
	Type	8061 SI 11.05		8040 SI 25.55
	Manufacturer	IVECO AIFO		
	Version	Diesel		
	Cycle	Alternate		
	Stroke number	4		
	Number of cylinder and alignment	6 in line		4 in line
	Bore (mm)	104		
	Stroke (mm)	115		
	Volume (cm^3)	5861		3908
	Compression volume ratio	17.7/1		
	Max. net power (CV / kW EEC)	140/103	125/92	108/79.5
	Max. speed (rpm)	2250		2300
	Max. torque (daNm EEC)	61.2		33.9
	Max. torque speed (rpm)	1300		1900
	Max. rotation speed (rpm)	2450		1995=2570 1996=2470

	THERMAL ENGINE WITH 6 CYLINDERS	SB 60	SB 56 - SB 58
	Starting from the series	□ □ 629A40	from 628018 to 628049
	Type	8061 SI 11.05	8061 I 25
	Manufacturer	IVECO FIAT	
	Version	Diesel	
	Cycle	Alternate	
	Stroke number	4	
	Number of cylinder and alignment	6 in line	
	Bore (mm)	104	
	Stroke (mm)	115	
	Volume (cm^3)	5861	
	Compression volume ratio	17,7/1	
	Max. net power (CV / kW EEC)	117/86	102/75
	Max. speed (rpm)	2250	
	Max. torque (daNm EEC)	55	
	Max. torque speed (rpm)	1250	
	Max. rotation speed (rpm)	2450	2580

	THERMAL ENGINE with 6 cylinders	SB 36	SB 60/62	- SB 64	SB56/58
	Starting from the series	627008	629A41		268050
	Type	8045SE	8065 SE		
	Manufacturer	IVECO FIAT			
	Version	Diesel			
	Cycle	Alternate			
	Stroke number	4			
	Number of cylinder and alignment	4	6 in line		
	Bore (mm)	104			
	Stroke (mm)	115			
	Volume (cm^3)	3900	5861		
	Compression volume ratio		17.7/1		
	Max. net power (CV / kW EEC)	100/73.6	130/95.7	150/110.4	118/86.8
	Max. torque speed (rpm)	2300			
	Max. rotation speed (rpm)	2475		2450	

COMMERCIAL DESCRIPTION			SB64	SB60 SB62	SB58	SB56	SB36
	WEIGHT						
	Max. acceptable weight under load (kg)		8000		7900		
	Max. acceptable	Front axle (kg)	3500		3900		
	weight on:	Rear axle (kg)	4900		4900		
	Weight w/out load on:	Total	7670	7180	7580	7090	7600
		Front axle	3290	2970	3140	2820	2900
		Rear axle	4380	4210	4440	4300	4700
	Weight of one wheel (kg)	13.6 R 24	105				105
		420/70 R 24	120				120
		14.9 R 30	NO				360*
		16.9 R 28	170				170
		480/70 R 28	175				175
		580/70 R 26	230				NO
	Weight of self-propelled machine (kg) with only wheel equipment						
	420/70 R 24 and 580/70 R 26		4740	4560	4600	4420	
	13.6 R 24 and 14.9 R 30						4600
	Thermal engine weight (kg)		510		400		
	FEEDING / EXHAUST						
	Fuel tank	Used fuel	Diesel oil				
		Capacity (litres)	225				
	Engine feeding system		direct injection				
	Air cleaner	Manufacturer	DONALDSON		DONALDSON		
		Type	ELB 10-0057		ELB 08-0010		
	Noise level in the cab (dBA)		77		81.5		
	Engine cooling	Water capacity (l)	20				
		Fan	sucking				
	Cooling fan ø (mm)		610		590 then 610 (1)		

- * with 75% of Chrysogel, that is 207 l. (1) with 6-cylinder engine.

COMMERCIAL DESCRIPTION			SB64	SB60 SB62	SB58	SB56	SB36
	MOTION TRANSMISSION						
	Engine fan pump	Manufacturer	SAUER				
		Displacement (cm^3/rev.)	14/17*				
		Speed (rpm) empty	2325 (93% of engine speed)				
		Capacity (l/min.) output 0.9	29/35*				
	Fan motor	Manufacturer	SAUER				
		Displacement (cm^3/rev.)	(11) o 12.2				
	Variable displacement hydraulic pump (set for an inching speed max. 24.5 km/h)	Manufacturer	SAUER		SAUER		
		Type	90R100		90R100		
		Displacement (cm^3/rev.)					
		Wheels 13.6 R 24	from 0 to 94.4 (1)		from 0 to 90 (1)		
		Wheels 420 / 70 R 24	from 0 to 89.2		from 0 to 85		
	Boosting pump	Displacement (cm^3/rev.)	26		26		
		Capacity (l/min.) output 0.9	57.3		(60) 57.8		
	Front wheel motor	Manufacturer	POCLAIN				
		Type	MS 08				
		Displacement (cm^3/rev.)	934				
	Rear wheel motor	Manufacturer	POCLAIN				
		Type	MSE 18				
		Displacement (cm^3/rev.)	2500 (1406/1084)				
	Max. speed (km/h) on road		(18 km/h) 24.5 km/h (1)				
	Max. speed (km/h) on field		11				
	Hydraulic oil						
		Total capacity	180				
		Tank	65				
	Type		OLIO FIAT Hydraulicar HVI 46 or (2) NEW HOLLAND: Hydrosystem 46HV Idraulicar BS 46 Biosynthetic				
	Extractor and conveyor pump	Manufacturer	VICKERS				
		Displacement (cm^3/rev.)	“Load sensing” from 0 to 41/45*				
		Speed rpm empty	2500 (see engine rpm)				
		Capacity (l/min) output 0.9	92.2/101.2*				
	Shaker/hopper * pump	Manufacturer	SAUER ou BARNES*				
		Displacement (cm^3/rev.)	22/19*				
		Speed rpm empty	2500 (see engine rpm)				
		Capacity (l/min) output 0.9	49.5/42.75 *				
	Steering/lifting * pump	Manufacturer	SAUER				
		Displacement (cm^3/rev.)	14/10.8 /14 *				
		Speed rpm empty	2325 (93% of engine speed)				
		Capacity (l/min) output 0.9	32/22/32 *				
	STEERING		**HYDROSTATIC**				
	Type	production 95	DANFOSS OSPC 125				
		production 96 ↦	EATON QAMP 145 cm^3/rev.				

(1) depending on tyres and countries
(2) see SB no. 191.201 as for the standard

* see application number at the “Hydraulic System” chapter

COMMERCIAL DESCRIPTION			SB64	SB60 SB62	SB58	SB56	SB36
	BRAKING						
	Service brake		by hydrostatic transmission				
	Parking brake (on both rear wheels)		by two pedals linked with a lever				
	SLOPE ADJUSTMENT		30%				
	PLATFORM CAB						
	Conditioned and heated cab		*	Option	*	Option	
	Activated charcoal filter		Option				
	Board computer		*	*	*	*	*
	De luxe seat		*	*	*	*	*
	Pneumatic seat		*	Option			
	Multi-purpose lever		*	*	*	*	*
	Climatization compressor	Manufacturer/Model	Sanden U 4643				
		Gas R 134 a (g)	1900				
		Oil SP 20 or SK 20	FIAT LUBRIFICANTI LBAR 134				
		(cm^3)	Add 125 g				
		Manufacturer	Seiko 121 DS 3				
		Gas R 134a (g)	1900 (2)				
		Oil SP 20 or SK 20 g	125 (3)				
		Speed (rpm)	2500 (1)				
	LIGHTING AND WARNING LIGHTS						
	High/low beams		2				
	Front position lights		2				
	Rear position lights		2				
	Direction indicators	Front	2				
		Rear	2				
		Side	2				
	Brake light		2				
	Number plate light		1				
	Reflector	Rear	2				
	Revolving beacon	w/cab	2				
		w/out cab	1				
	Supply voltage		12 V				

* = standard
** = without locking starting from series – 628040 – 627007
(1) Instead of 3300 rpm starting from 629051, 628050.
(2) Instead of 2100 rpm
(3) To be added without emptying the compressor

BASIC SUPPLY

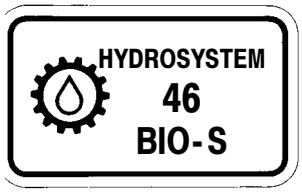
COMMERCIAL DESCRIPTION			SB64	SB 60 SB62	SB58	SB56	SB36
HARVESTING EQUIPMENT							
	HARVESTING HEADER						
	Type		Tilting, self-aligning				
	System		Shaking S.D.C.				
	Shaker number		14 supplied				
	Straight/bent control lever		13/1				
	Inching	Engine manufacturer	EATON				
		Volume (cm^3/rev.)	46				
	Width position		3				
	Clearance under frame (mm)		from 2000 to 2600				
	Grape harvesting total height (mm)		1250				
	HARVESTING/TRANSPORT						
	Noria system:	Buckets per chain	62				
		Synchronised	in field speed				
	Elastic stock guide width: (mm) (1)		from 195 to 265				from 165 to 235
	Tightness length (mm)		2100				
	Harvesting min. height (mm)		150				
	Inching	Engine manufacturer	EATON				
		Displacement (cm^3/rev.)	243.9/500 (2)				
	Conveyors	Width (mm)	600				
		Speed (rpm) max.	about 750				
		Reverse	*				
	Only inching	Engine manufacturer	EATON				
		Displacement (cm^3/rev.)	31.6				
	CLEANING						
	2 upper extractors with removable stalk-choppers	Diameter (mm)	460				
		Inching	hydraulic				
		Engine manufacturer	SAUER				
		Displacement (cm^3/rev.)	11				
	2 lower extractors with	Diameter (mm)	430		430		
		Inching	Hydr.		Hydr.		
		Engine manufacturer	SAUER	Option	SAUER	Option	NO
		Displacement (cm^3/rev.)	6/ (8.4)		6/ (8.4)		
	2 independent stalk-choppers	Inching	Hydr.	Option	Hydr.	Option	NO
		Engine manufacturer	EATON		EATON		
		Displacement (cm^3/rev.)	8.2		8.2		
		Rotation direction	reverse to the wheels		reverse to the wheels		
	HOPPERS						
	Capacity	Standard	2600		2100		2100
		Other version	3200		2600		2600
					3200		
	Electrically controlled distribution auger		Control independent from the harvesting equipment				

(1)According to the bucjet type

(2)See application nmber in the chapter of the Hydraulic system

CAPACITIES
LUBRICANTS AND LIQUIDS

Part to be filled	Quantity dm^3 (litres)	Suggested product	Corresponding International Classification
Self-propelled greasing points		Grease **AMBRA GR 9**	Lithium-calcium grease con consistency NLGI 2
Harvester greasing points		**GREASE**	
Noria control housing		**Food Type**	re. 62777339 24 cartidges
Slope indication pendulum greasing	spraying	**ELECTROLUBE 2Gx**	1 spray bottle Re. 920 018 957
Engine sump and filter (l) 6-cylinder engine 4-cylinder engine	 17 11	Oil **AMBRA SUPER GLOD 15 W - 40**	SAE 15W40 CCMC-D4 API CF- 4/SG MIL-L-2104 E
Tank	65	Oil **HYDROSYSTEM 46 HV**	ISO VG 46
Tank *	65	Oil **HYDROSYSTEM 46 BIO-S**	ISO VG 46 DIN 51524 - part 2 HV 46
Cooling system	2	**AMBRA AGRIFLU** (50%)+ Clean water (50%)	

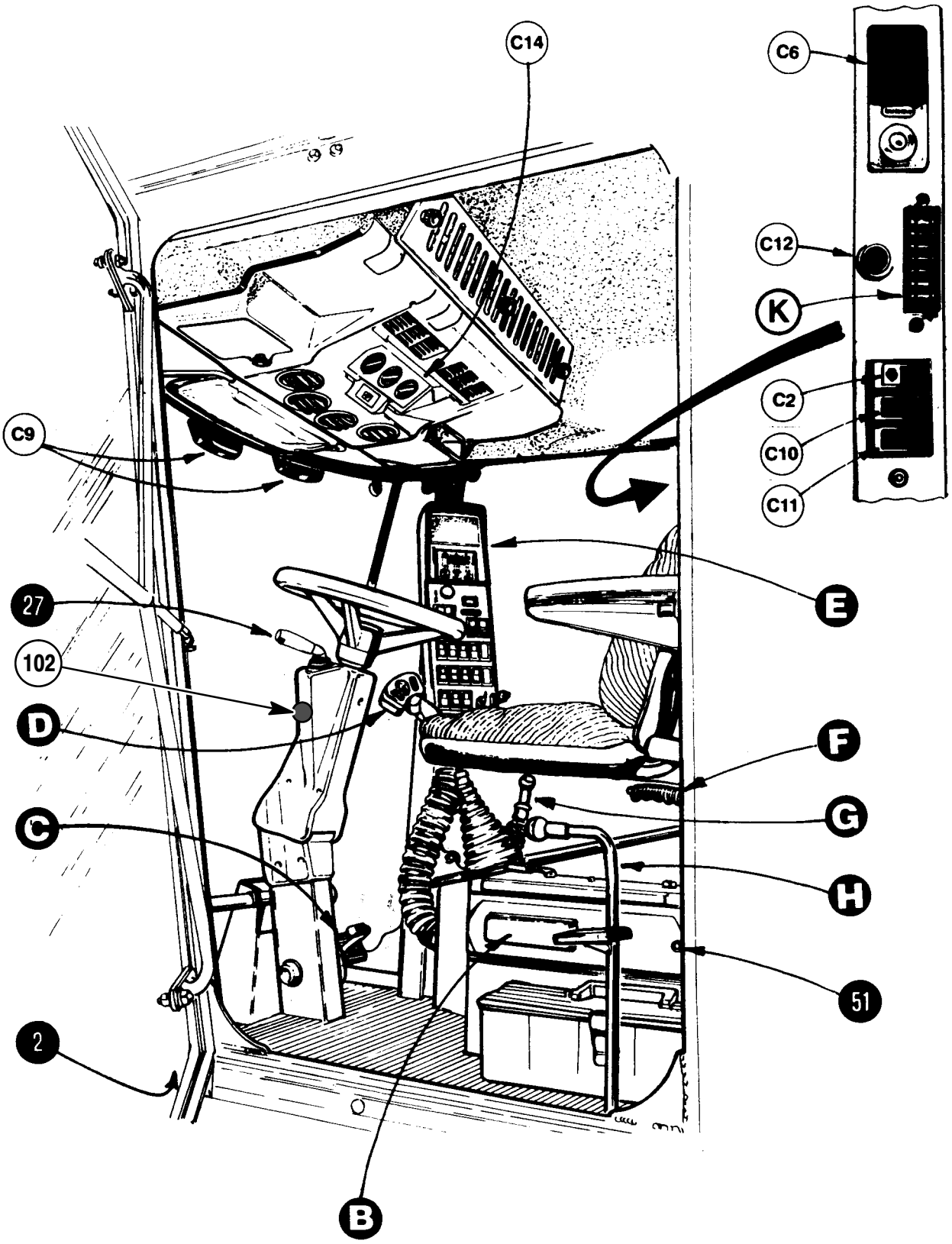


* machines with sign HYDROSYSTEM 46 BIO-S on the tank.

CONTROLS AND INSTRUMENTS

Print no. 604.82.231.00 - 5 - 2000

CONTROLS AND INSTRUMENTS



DRIVER'S PLATFORM

B Fuse box (w/ 14 fuses from **B1** to **B14**) for warning signals, lighting, container augers and pneumatic seat

C Parking brake pedals (independent or linked together)

D Multi-purpose control inching lever

E Control cluster

F - Parking brake pedal locking lever: lower both pedals and lock them means of the lever
- Parking brake lever from the series 629A41-628040-627007.

G Thermal engine accelerator lever

H Ladder and foot board folding and unfolding control lever

2 Battery cut-off device

27
- Control button for:
- low beams
- direction indicators
- horn

51 Container auger disjunctor restore buttons

102 Simultaneous electrical control of rear brakes

CAB

C2 Windscreen wiper and washer switch

C6 Inner roof light

C9 Cab front light

C10-C11 Cab front light switch

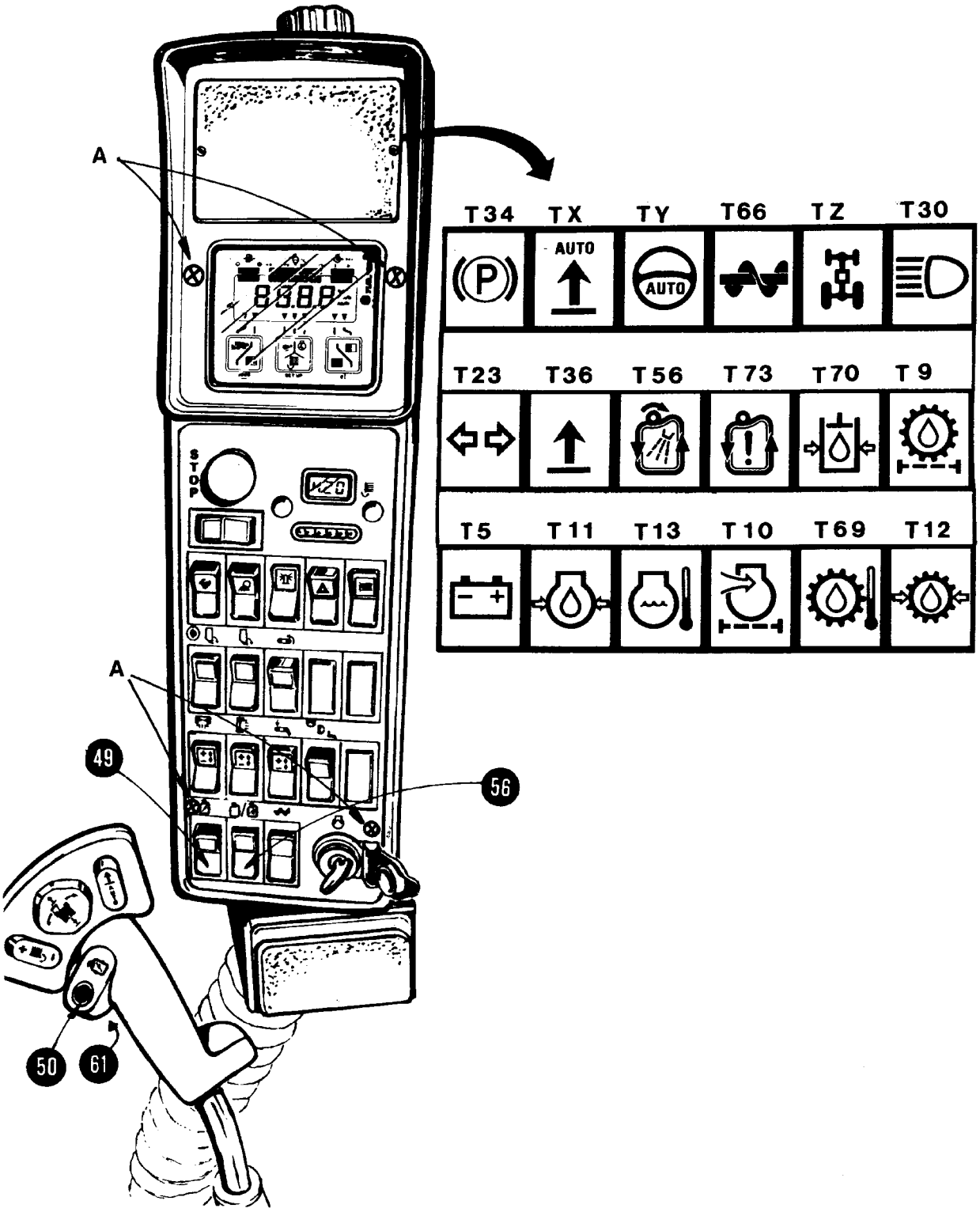
C12 Cigarette lighter

C14 BORLETTI air conditioning assembly

K use box (8 fuses from **K1** a **K8**)

NOTE: *the marks on the fuses are the same as given on the electric schemes*

CONTROLS AND INSTRUMENTS



WARNING LIGHT CONTROL BOX

T5 Battery charge red warning light controlled by terminal D+ of alternator **Re. 5.**

T9 Booster take-in filter clogging yellow warning light, controlled by manocontact **Re.9** set at 0.35 bar.
(1) Yellow warning light for booster pressure filter clogging, controlled by the manocontact **Re.119** calibrated in the low point 17b.

T10 Air filter clogging yellow warning light controlled by manocontact **Re. 10.**
Starting from series 627010, this warning light is not used anymore.

T11 Thermal engine oil pressure red warning light controlled by manocontact **Re.11.**

T12 Booster pressure red warning light by manocontact **Re. 12** set at 17 bar.

T13 Thermal engine water temperature red warning light controlled by thermal contact **Re. 13.**
Starting from series 627010, this warning light is not used anymore.

T23 Flashing light green warning light controlled by central unit **Re. 23.**

T30 Law bean **Re. 30** blue warning light.

T34 Parking braking red warning light controlled by 2 manocontacts on the braking action reduction hydraulic pressure – calibrated at 17 bat, it lights up when the brakes are engaged by the pedals, with or without locking lever.
(1) Pilot light for parking brake only, controlled by manocontact **Re. 34.**
(2) This pilot light switches on when the right rear wheel is braked by the manocontact **Re. 34**

T36 Harvesting equipment height red warning light controlled by sensors **Re. 36.**

T56 Noria operation in washing position yellow warning light controlled by switch **Re. 56.**

T66 Container auger rotation signalising green warning light controlled by container auger switch **Re. 66.**

T69 90 degree hydraulic oil temperature red warning light controlled by manocontact **Re. 69.**

T70 Free.

T73 Operating noria red warning light, controlled by central unit **Re. 73:**
. it flashes when power is given to switch **Re. 49**
. it lights up when power is given to switch **Re. 56**
. it switches off when switches **Re. 50** and **Re. 61** start operating.

NOTE: *this warning light remains on every time a necessary function for harvesting is not performed properly*

TX

TY Free

TZ

A To open the control box, remove these four screws only.

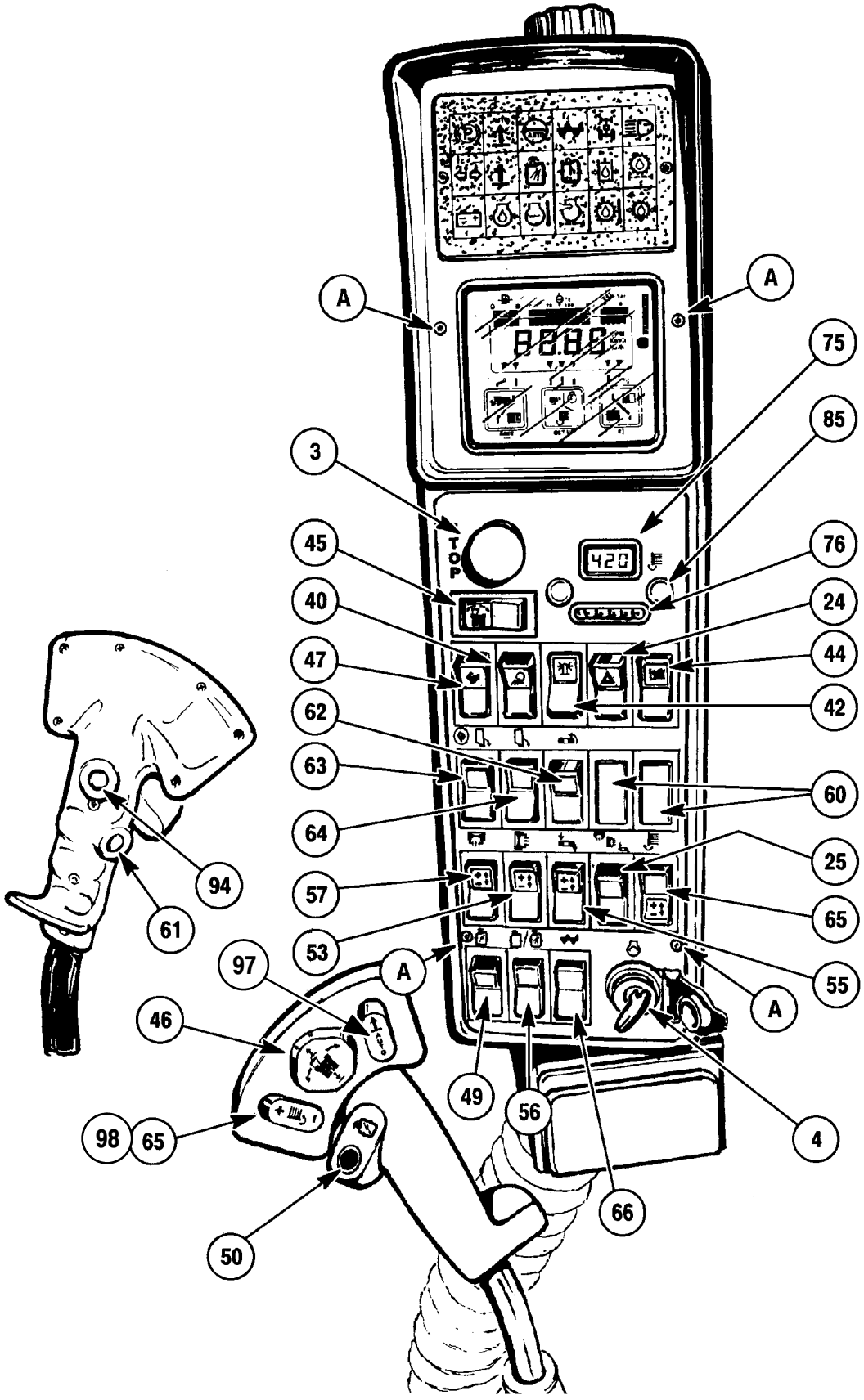
NOTE:

1. When contact is given, warning lights **T5, T9, T11, T12** and **T34** must light up; **T36** must also light up when the harvesting equipment is lowered on the ground.
2. **Reference number of the warning lights** are given on the electric scheme, except one special warning light is indicated on the scheme near the element it controls.

(1) Starting from series 629A41 – 628040 and 627007

(2) Starting from series 629062, 628058 and 627009

CONTROLS AND INSTRUMENTS



To open the panel, just loosen the 4 screws Re. A.

CONTROL PANEL

The references are the same as given on electric scheme.

3. "Consequent stop" button, it stops leaning and thermal engine (it resets all functions except the warning lights and the rotary light).

4. Starting contactor (possible only when the inching lever is on zero).

24. "Warning" switch (ON-OFF).

25. Display selection switch (ON-ON-ON) (Upper extractor, lower extractor, conveyor).

40. Operation light switch (OFF-ON-ON).

42. Rotary light switch (ON-OFF).

44. Front/rear level adjusting switch (MOM-OFF-MOM); it does not work if the "Caution" switch is not operating.

45. Shaking switch for leaning control (MOM-OFF-MOM)
This control resets the other input coming from the inching lever.

46. Lifting and leaning contactor.

47. Road/field speed switch (ON-OFF). Road speed can be selected only with forward gears.

49. Harvesting equipment setting under tension switch (ON-OFF).

50. Harvesting equipment Go/Stop impulse switch (MOM).
a) Run: (only if the battery charge indicator is off)
a) - Extractors up and down
b) - Conveyors and norias after 3□7 secs
Shaking starts only by means of switch **Re. 61**. It does not work if the charge warning light is on.

NOTE: *norias start operating only if switch **Re. 56** is in automatic position. Then, on the row end:*

b) Stop: Extractors up, down, conveyors, shaking and norias

53. Lower shaker speed adjusting switch (MOM-OFF-MOM).

55. Conveyor speed adjusting switch (MOM-OFF-MOM).

56. Noria 3-position (automatic/stop/washing) switch (ON-OFF-ON).
The washing position works only when the inching lever is in neutral.

57. Upper extractor speed adjusting switch (MOM-OFF-MOM).

60 Free for multipurpose switches. They are pre-wired starting from the machines SB 36 series 01, SB 56/58 series 06, SB 62/64 series 05.

61. Shaking Start/Stop impulse button.

62. Reverser switch for belt rotation, with two positions on the first series (ON-MOM), then with three positions (ON-OFF-MOM) and with three positions (MOM-ON-MOM). See use in D.19.

63. Left container tilting switch (MOM-OFF-MOM).

64. Right container tilting switch (MOM-OFF-MOM).

65. Shaking frequency adjusting contactor (MOM-OFF-MOM) on the inching lever.
(1) Shaking frequency adjusting contactor (MOM-OFF-MOM) placed on the board, that switches on if the shaking equipment is operating (the inching lever contactor becomes multipurpose).

66. Auger and container start switch (MOM-OFF-MOM)
Container augers cannot rotate if the harvesting equipment is not powered.

75. Shaking frequency display.

76. Level indication in slope through 3 LEDs each side. When the third LED **Re. EV18** lights up, the buzzer operates and the hydraulic bar of the front struts is locked if, at the same time, the machine has a slope corresponding at least to 20% forward.

85 Driving indication lights, installed starting from SB 62/64 629-20, SB 56/58 628021, SB 36 627004...

94 (1) Braking enabling switch.

97 Free for multipurpose.

98 (1) switch free for multipurpose.

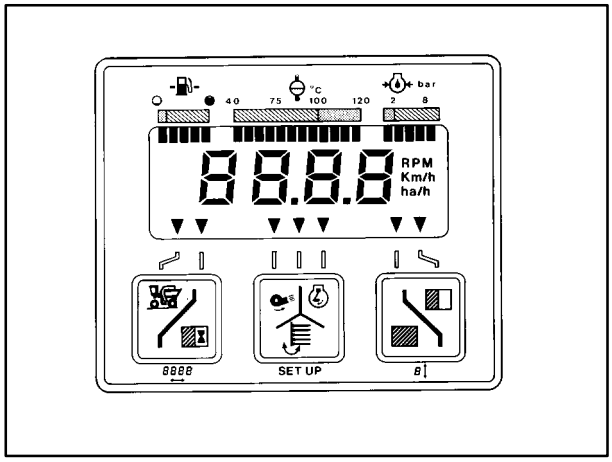
NOTE: *(1) starting from series 629A41 – 628040 – 627007.*

ONBOARD COMPUTER

When the computer is switched on, the following displays will appear in succession:

Self test

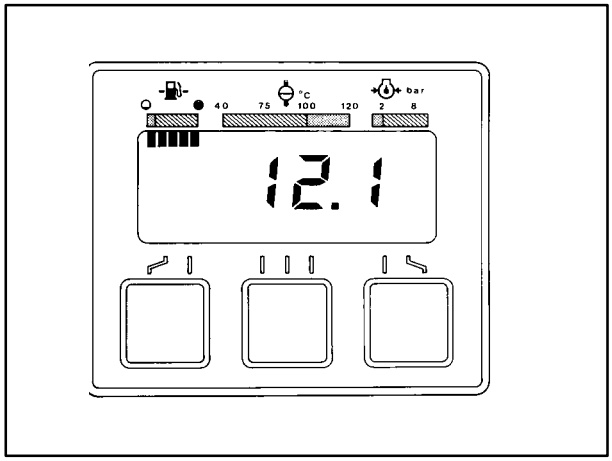
All grafic segments displayed for 6 seconds



1

Battery voltage

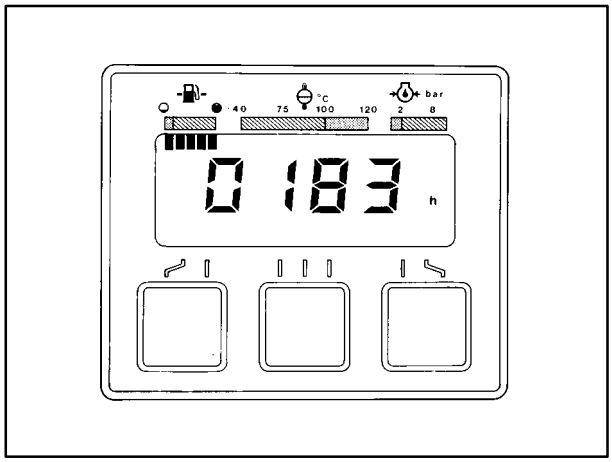
Displayed for 6 seconds.



2

Engine operating hours

Displayed for 6 seconds.

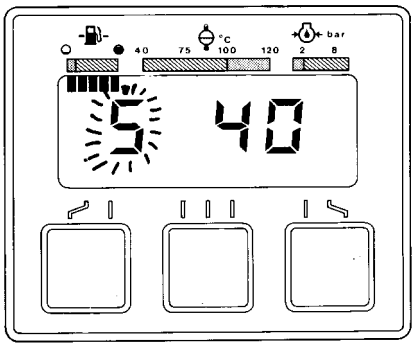


3

Servicing reminders

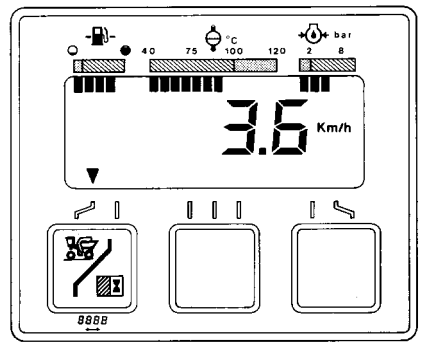
S = service

40 = number of operating hours since the start of this maintenance cycle.



4

Forward speed (km/h)



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