



**400 - 500**



## LET'S START FROM THE BEGINNING

Before developing a new tractor, we-at BCS-take care of your necessities and your needs. We worry about your safety and have the environment at heart.

The aim of our Company it to build high quality tractor, whose performance is at the top of their class and which give a high level of productivity at a reasonable cost.

Our high-level sale and after-sale service networks and dealers are always at your service.



## PROTECTING THE ENVIRONMENT

At BCS we are actively working to protect our environment in many ways. We use recyclable materials where possible and modern, environmentally friendly production methods.

Our tractors are designed to reduce noise pollution and are equipped with emission controlled engines that reduce the irritating smoke and toxic exhaust emissions.



## UNIQUE FEATURES

VALIANT 400 and 500 are tractors with equal size wheels available in articulated "AR" and rigid "RS" (front wheel steering) versions. Compact, with a low profile, VALIANT tractors have been designed specifically for use in vineyards, orchards, greenhouses or, in general, for particular crops where other tractors are too large or too heavy. They are equally adapted for maintenance work in cities and green areas.



The optimal steering radius, the four wheel drive and the ideal weight distribution let you work safely and efficiently in difficult terrain. The comfortable driving position, the ergonomically positioned controls and the practical, easy to read instrumentation let you work without fatigue.



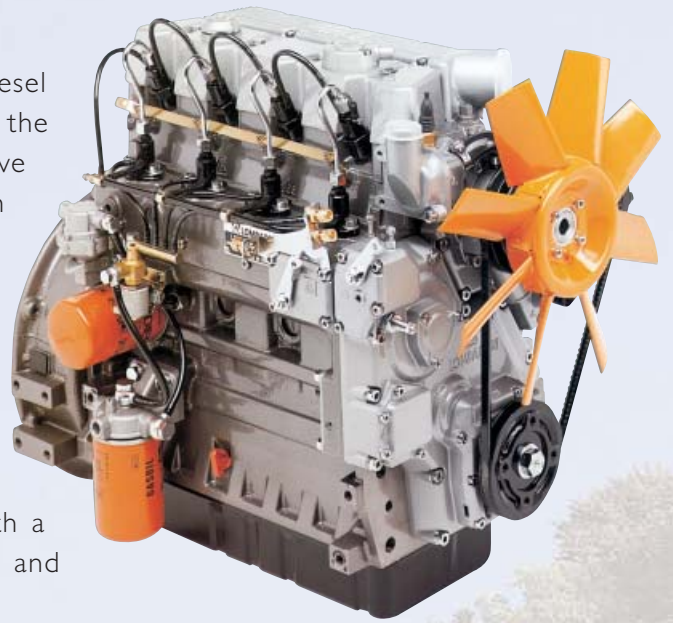
## POWERFUL YET CLEAN ENGINES

The water-cooled, diesel engines mounted in the VALIANT tractors have advanced combustion and injection systems and comply with the latest exhaust emission limits (EC, CARB and EPA).

They provide high output and high torque at low rpm with a low noise level and imperceptible vibration.

They have low fuel consumption and are very reliable economic to service.

Spare parts are readily available.



## THE 24-SPEED TRANSMISSION

VAILANT tractors have a fully synchronized 24-speed gearbox with quiet running helicoidal gears (12 FWD and 12 REV) and a reversing gear. The wide range of gear ratios lets you choose the optimum speed for your job.

The clutch of VAILANT tractors is a multi-disc wet type in an oil bath that assures smooth and gradual insertion.

The front and rear differential locks, which can be ordered with either



mechanical or electro-hydraulic control, can be inserted as needed to maximize traction.

The transmission is mounted inside the chassis providing high ground clearance and very low center of gravity for utmost stability under all conditions.

The final drives are the epicyclic type. This keeps the size down reducing the width of the tractor while providing maximum torque transmission with an almost unlimited life.



## THE SWINGING CHASSIS

The short wheelbase and tight turning radius make the vehicle extremely maneuverable on all types of ground.

The central pivot allows the front end of the tractor to swing more than  $15^\circ$  in relation to the rear end so that the tractor can follow the irregularities of the ground while maintaining full stability and traction.



## OPTIMAL DRIVING POSITION



VALIANT tractors are available in conventional mono-directional versions and in reversible versions where the driving position (seat, steering wheel, dashboard) can be reversed in just 5 seconds without having to detach any connections. VALIANT tractors are designed and built to give the operator the best in terms of comfort.

The controls are ergonomically positioned and the driver's seat and steering column can be adjusted to suit the operator. The instrument panel displays all the information needed by the driver to operate the vehicle.



## THE STEERING



VALIANT tractors have a short wheelbase and a tight turning radius. They are particularly suitable when space is tight and precise and accurate movements must be made. The quick and smooth steering is servo-assisted with an independent pump to ensure precise handling in all situations.



## POWER LIFT AND HYDRAULIC CONNECTIONS

The rear hydraulic power lift on VAILANT tractors uses two (2) hydraulic rams and external cylinders to reduce the seat height and has a class I three-point linkage. Hydraulic lift with position and draft control is optionally available.

The VAILANT has dual hydraulic circuits with two pumps that permit the use of up to 6 hydraulic connections



## POWER TAKE-OFF

There are two PTO versions available for VALIANT tractors.

The standard type with mechanical activation, which is driven by the gearbox at 540/750 rpm.

The other, at 540 rpm, is controlled electro-hydraulically from the dashboard and is independent of the gearbox (standard with the reversible models).

Both versions have a synchronized PTO rate proportional to the ground speed of the tractor:

The independent PTO has a self-contained, multi disc wet clutch in an oil bath, which provides smooth and gradual engagement while reducing the stress on the engine and PTO shaft.



## BRAKING SYSTEM

The hermetically sealed, multi disk brakes in an oil bath are mechanically operated and need no adjustment ensuring the utmost safety and reliability.





## PROTECTIVE ROLL BAR AND CABINS



The protective roll bar of the VALIANT tractors is approved according to the stringent European norms. It can be easily folded down to allow the tractors to work under low plants.

The tractors can be fitted with high quality cabins with rounded corners and flat surfaces, which prevents damage to the plants in restricted spaces. The cabins are mounted on silent blocks and are available with a variety of options to assure comfortable operating conditions in all kinds of weather.

Summer cabins are available for the tractors with front wheel steering.

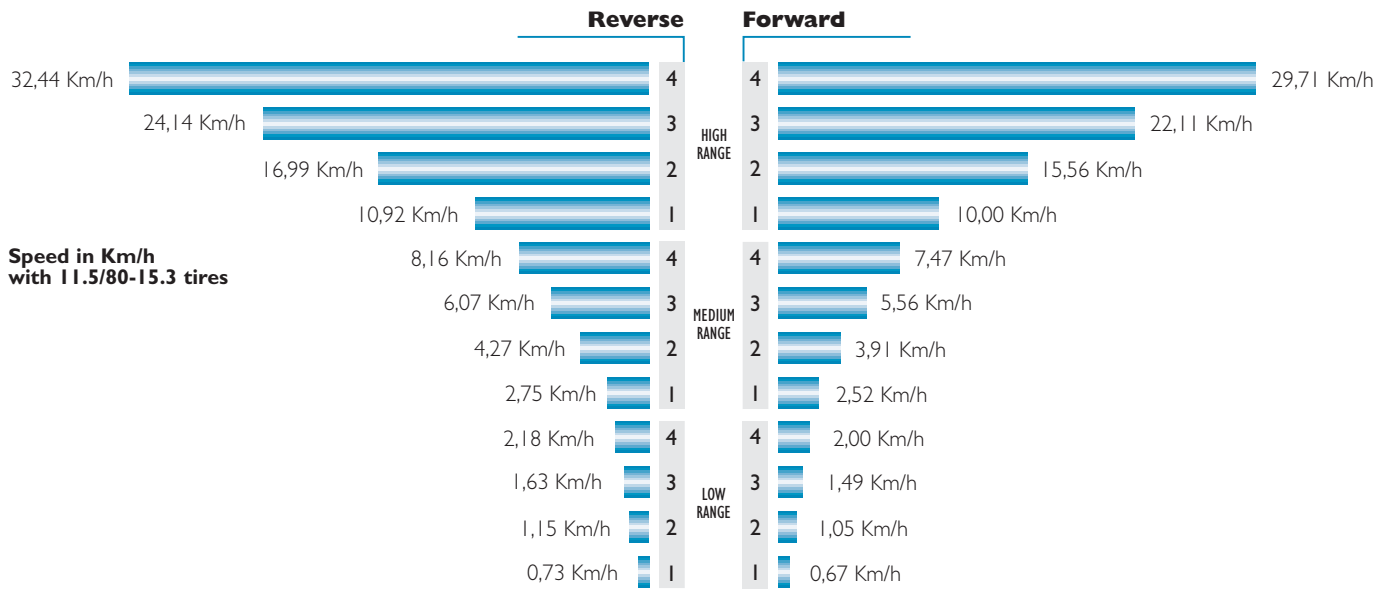


## A WIDE CHOICE OF TIRES

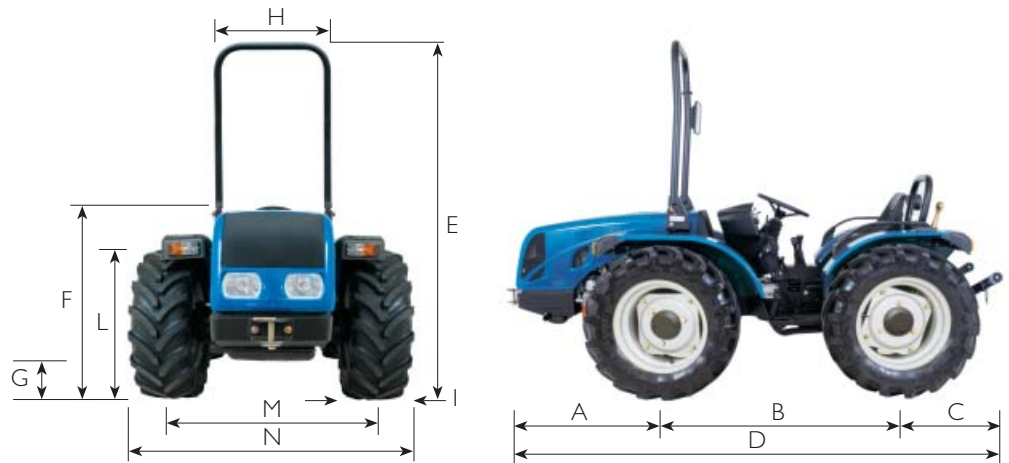
BCS offers a wide choice of tires and rims of variable track width for VALIANT tractors to meet your requirements.



- 1) **33x12.50-15 Soft-Track wheels**  
Wheels that do not compact the soil any more than necessary, essential for ground care work on lawns where the grass must not be crushed.
- 2-3) **31x15.50-15 STG • 31x15.50-15 XTC wheels**  
Wheels that minimize the compaction of the soil and are particularly suitable for ground care work, forage crops or applications where the soil must be protected without losing grip, even on slopes or irregular ground.
- 4) **7.50-16 • 8.25-16 • 250/80-18 • 280/70-18 • 11.5/80-15.3 • 320/65-18 wheels**  
Wheels with the 'TRACTOR' profile suitable for typical agricultural use, soil work, towing or wherever wheels with an excellent grip are required to achieve the maximum lugging power from the vehicle.



## VALIANT 400 - 500 AR



### Tractor dimensions

#### VALIANT 400AR

	A	B	C	D	E min max	F min max	G min max	H
mm	958	1340	407	2705	1984 2074	1050 1140	190 280	675

#### VALIANT 500AR

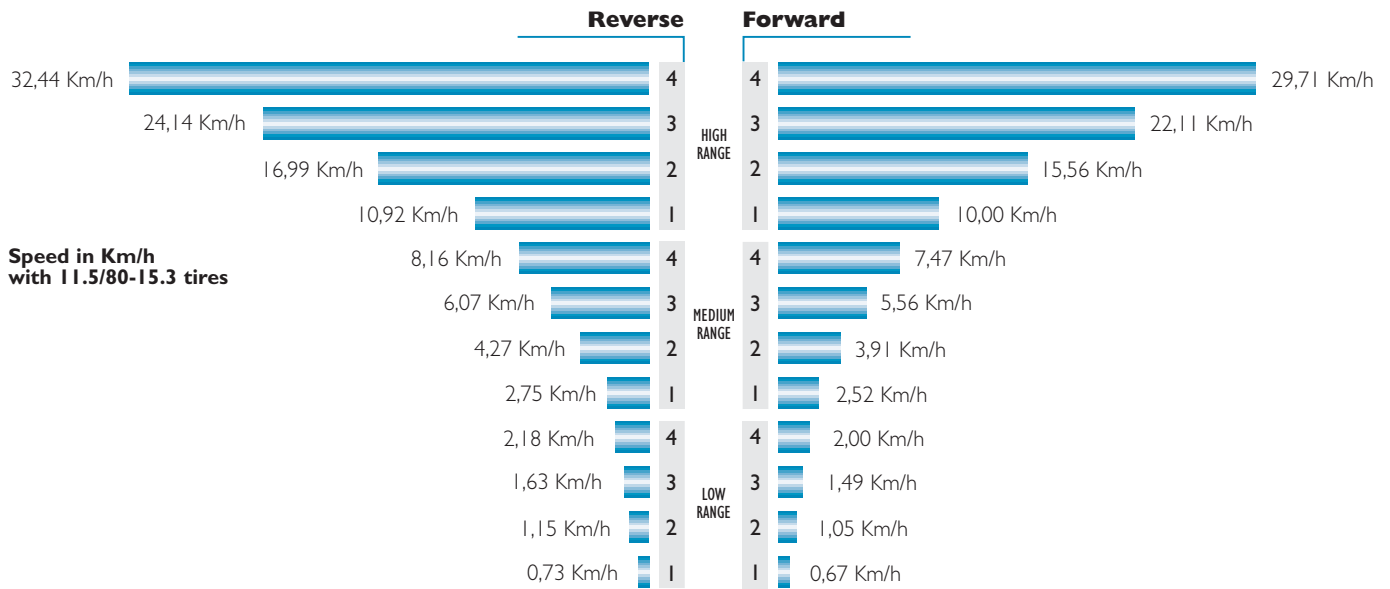
	A	B	C	D	E min max	F min max	G min max	H
mm	1058	1340	407	2805	1984 2074	1050 1140	190 280	675

#### VALIANT AR Steering radius with tires

	7.50-16	8.25-16	250/80-18	280/70-18	320/65-18	11.5/80-15.3
mm	2450	2450	2500	2530	2650	2550

#### Width of VALIANT AR with various types of tires

	A Tire width mm	B Tire height mm	C Track min/max mm	D Width min/max mm
7.50-16 with adjustable rim	208	798	787-1107	995-1315
8.25-16 with adjustable rim	212	820	787-1107	999-1319
250/80-18 with adjustable rim	240	879	875-1109	1115-1349
280/80-18 with adjustable rim	282	858	873-1065	1155-1347
320/65-18 with adjustable rim	319	873	873-1065	1192-1384
11.5/80-15.3 with adjustable rim	287	888	913-1089	1200-1376



## VALIANT 400 - 500 RS



Tractor dimensions

### VALIANT 400RS

	A	B	C	D	E min max	F min max	G min max	H
mm	958	1340	407	2705	1984 2074	1050 1140	190 280	675

### VALIANT 500RS

	A	B	C	D	E min max	F min max	G min max	H
mm	1058	1340	407	2805	1984 2074	1050 1140	190 280	675

### VALIANT RS Steering radius with tires

	7.50-16	8.25-16	250/80-18	280/70-18	320/65-18	11.5/80-15.3	31x15.50-15	33x12.50-15
mm	2800	2800	2830	2930	2950	3130	3250	3200

### Width of VALIANT RS with various types of tires

	A Tire width mm	B Tire height mm	C Track min/max mm	N Width min/max mm
7.50-16 with adjustable rim	208	798	992-1312	1200-1520
8.25-16 with adjustable rim	212	820	992-1312	1204-1524
250/80-18 with adjustable rim	240	879	1000-1314	1240-1672
280/70-18 with adjustable rim	282	858	1044-1270	1326-1552
320/65-18 with adjustable rim	319	873	1044-1270	1363-1589
11.5/80-15.3 with adjustable rim	287	888	1020-1294	1307-1581
31x15.50-15 XTC with adjustable rim	389	805	1200	1589
31x15.50-15 STG with adjustable rim	389	805	1200	1589
33x12.50-15 Garden with fixed rim	345	843	1085	1430

## Technical specifications

	VALIANT 400AR	VALIANT 500AR	VALIANT 400RS	VALIANT 500RS
CHASSIS	Swinging integral chassis with central articulation		Swinging integral chassis with steering wheels	
DRIVE	Four wheels drive			
ENGINE	4-stroke Diesel with direct injection complying with Norms CEE 97/68, CEE 2000/25 and U.S. EPA			
Manufacturer	LOMBARDINI		LOMBARDINI	
Model	LDW 1603 Plus CHD	LDW 2204 Plus CHD	LDW 1603 Plus CHD	LDW 2204 Plus CHD
No. of cylinders	3	4	3	4
Displacement . cm3	1551	2199	1551	2199
Power rating - kW/HP	25.6/35	34/46	25.6/35	34/46
Rpm	2800			
Maximum Torque (Nm/rev)	104/1650	140/1800	104/1650	140/1800
Cooling	Water			
TRANSMISSION	Synchronized gearbox with 24 speeds: 12 FWD and 12 REV with reversing gear			
MAIN CLUTCH	Multi disc in oil bath			
PTO CLUTCH	Multi disc in oil bath			
(only with independent PTO-standard for reversible version)				
DIFFERENTIAL LOCK	Front and rear with machanical control and/or electro-hydraulic control (the latter is standard with independent PTO)			
DRIVING POSITION	Mono-directional or reversible (with rotating platform and dual pedals)			
AXLES	Front and rear with epicyclic final drives			
POWER TAKE-OFF	Rear PTO 540/750 rpm driven by and synchronized to the gearbox with mechanical control or Independent, rear PTO 540 rpm synchronized with the gearbox with electro-hydraulic control (standard wiyh reversible models)			
REAR LIFT	External rams, optional force and position control			
Three point linkage	Standard: Class I			
Lifting capacity - kg.	1300			
SERVICRE BRAKES	Multi disc in oil bath			
EMERGENCY BRAKES	Acting on to main brakes			
STEERING SYSTEM	Power steering with automatic flow switching for reversible models			
HYDRAULIC SYSTEM	Double hydraulic circuit with independent pumps			
HYDRAULIC CONYTROLS	Standard: 1 double acting control valve. Optional: various control valves with maximum of 6 hydraulic connectors			
ROLL BAR	Front folding			
TYRES	Standard: 7.50-16		Optional: 8.25-16	
	* 280/70-18 * 320/65-18 11.5/80-15.3 * 31x15.50-15 with XTC and STG tread * 33x12.50-15 Soft-Track			
TOW HOOKS	Front and rear towing hooks			
WEIGHT - OPERATIONAL - kg	1155	1190	1185	1220
OPTIONS	Front and rear differential lock with electro-hydraulic control; Cabins; Control valves in place of standard: 1 single-acting, 1 double-acting floating type and/or 3 double-acting control valves (one with block); Independent 540 rpm PTO with electro-hydraulic control; Bostrom seal; Safety frame with 4 pillar; Wheel weights.			
for Mono-directional versions	Cabins; Control valves in place of standard:			
OPTIONS	1 single-acting, 1 double-acting, 1 double-acting floating type and/or 3 double-acting control valves (one with block); Bostrom seat; Hydraulic suspension with tank; Safety frame with 4 pillars; Wheel weights.			
for Reversible versions				

The information and technical specifications given are not binding; the specified models can be changed by the Manufacturer, without prior notice. Drawings and pictures can refer to optional equipment or versions destined for other Countries. For additional information, please contact our sales network.

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**WALKABOUT**

Your BCS Partner

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