

# ELECTRIC TRACTORS



## BULL 5NS

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**Latest-generation standing tractor with electric steering: combines excellent performance with a modern design that opts for innovative solutions and materials. The technical project was studied to provide the maximum comfort and ergonomics.**

Bull 5 N is the first standing tractor that can have pneumatic wheels, more comfortable, and the battery on the posterior axle to give extraordinary stability in every driving conditions.

Self-supporting bodywork with extruded steel mudguards and pressed steel front protect the machine against accidental collisions.

The high capacity battery can be removed both vertically and sideways, since it rests on bearings.

Compact dimensions, easy-to-use controls and performance make these machines ideal for use both indoors and outdoors. They can also be equipped with a professional cab, with PVC or metal doors.

The dashboard features an interactive display that provides information about the battery charge, hours worked, instantaneous speed, service conditions and technical faults. Starting by badge and Black Box are also available on request. The machine is operated by an AC system so, besides driving it, the motor also functions as a regenerative brake when the operator releases the accelerator. The high capacity battery can be recharged by a high-frequency battery charger on board and easily replaced, since it can be removed sideways from the machine.



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**CHASSIS:** in very thick metal sheet forming a self-supporting box structure.

**Steering:** a gear with an AC motor, controlled by a specific electronic system, move the front direction wheel. The driver interact with the system through a cloche equipped with throttles for speed control and rotation for direction control.

**TRANSMISSION:** an asynchronous motor directly flanged on the differential axle drives the vehicle.

The asynchronous motor has an electric brake that acts as a parking brake.

It also has an Encoder that interfaces with an electronic control unit and allows the system to adjust the speed of the motor so that the tractor speed corresponds to the driver's requirements in all conditions of use.

**ELECTRIC SYSTEM:** an AC chopper monitors the performance of the AC motor; another electronic system controls the engine dedicated to move the direction wheel.

The entire choppers/motors/brake system can be programmed with the console to ensure optimum performance for the specific work required.

**BRAKE SYSTEM:** trough the throttles it is possible to obtain whether the release braking or the counter current brake. Two levers are installed on the cloche to have a stronger electric brake by motor respect the brake obtained by throttles.

**INSTRUMENTATION:** complete motor car type instrumentation including low battery warning indicator, hours worked and fault indicators, hare / tortoise indicator, horn, light switch, turn indicator switch.

**POWER SUPPLY:** a 24 V 500 A battery with considerable autonomy allows the tractor to operate for a long period of time and, thanks to its large capacity, will not normally be subjected to stress. This makes it extremely long-lasting.

**SAFETY DEVICES:** micro switch under driver platform, battery quick release device, battery safety retainer, AC system for speed control, automatic parking brake.

Compliance with the regulations in force and CE certification.

CHARACTERISTICS		dim.un.	
Manufacturer			
Model		Bull5NS	
Platform loading capacity	Nominal capacity	Kg.	----
Pull capacity	Load nominal capacity	Kg.	5000
Power type	Electric/Endothermic	Electric	
Control type	Pedestrian/stand-on/Seated	stand-on	
Tyres	Pn - pneum. / se - superel.	Pn	
Wheels	Number front/rear X=drive	Nr.	3 - 1/2x
Platform dimensions	L x B ( lenght x width)	mm.	----
<b>DIMENSIONS</b>			
	h= machine body hight	mm.	80
	L= lenght	mm.	1776
	B=width	mm.	920
	h 3 = feet panel hight	mm.	150
	h 4 = steering/handle hight	mm.	1110
	h 2 = thiller hight	----	----
	h 5 = seat hight	mm.	705(6step-150)
	h 6 = turning light hight	mm.	1800
	h 7 = cabin turning light hight	mm.	----
	h 1 = cabin hight	mm.	----
	h 9 = cabin width	mm.	----
Turning radius	R1= front min. external	mm.	1930
	R2=rear min. external	mm.	1480
Aisle width	U-turn	mm.	3530
Hook hight	s = hook center to ground	mm.	180-250-320
<b>PERFORMANCE</b>			
Speed	Without / with load	Km./h	9-4
Tractive effort	Continuative work 60'	N.	1800
	Max in plane x 5"	N.	3500
Gradeability	Without/width	%	9-4
Weight	With battery	Kg.	820
Axles load	Front/rear with battery	Kg.	250-570
<b>TRACTION</b>			
Wheels	Front diam./ width	mm.	375-125
	Rear diam./ width	mm.	400-125
Wheelbase	y = pitch	mm.	1195
Trach	C posterior wheels center	mm.	760
Ground clearance	clearance at half chassis	mm.	80
Working brake	Mecc./hydraul./elettr.	Elettr.	
	Brake axles number	N.	1
Parking brake	Mecc./hydraul./elettr.	Elettr.	
Suspensions	Spring/laf spring/schock absorber	----	
<b>POWER SUPPLY</b>			
Battery	Type	Reinforced	
	Capacity	V./Ah.	24-500(C5)

