



# BULL 25

Electric tractor Bull 25 is a highly reliable, high-performance four-wheeled machine designed to tow heavy trailers over medium and long distances. Thanks to its size, functional characteristics and ease of use, it is ideal for handling and transporting work in airports, railways, iron & steel industries, automotive industries and many others.

Particular attention has been paid to designing a driving position where ease of access and use improve operator productivity.

In addition, the suspension system ensures that the vehicle runs smoothly when on the move. Double seat on board.

On request, the tractor can be fitted with a sound proofed cab with swing or sliding doors and heating system (optional).

The cab equipment includes: rear view mirrors, windscreen wipers, revolving beacon and other optional on request.

The driving position has automotive-type pedals, while the steering wheel has a switch for controlling lights, speeds and horn.

An interactive display with several pages provides indications about the performance of the machine, the battery, fault alerts and the service situation.

The mechanical transmission has an 80 V three-phase high capacity motor providing excellent acceleration, towing power and towing capacity on slopes.

The power steering system is light and accurate while the four dual-circuit hydraulic disc brakes ensure an efficient, safe and reliable braking action.



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**CHASSIS:** very thick sheet metal has been used to create a rigid structure that protects the machine from accidental impact. Special coating provides protection against corrosion.

**SUSPENSIONS:** the machine features front and rear axle suspensions.

The front axle is supported by leaf springs and shock-absorbers while the rear axle is supported by leaf springs. The large wheels are the super-elastic or pneumatic type.

**TRANSMISSION:** a differential axle with directly flanged AC motor drives the vehicle.

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

**ELECTRICAL SYSTEM:** an AC inverter controls motor performance.

The entire chopper/motor/brake system can be programmed via the console to ensure optimum performance for the specific work required.

**BRAKE SYSTEM:** a pedal-operated hydraulic pump controls the hydraulic disc brakes by means of two circuits. The electrical system allows the motor to also act as a brake when the accelerator is released: in this case, the braking action is regenerative.

**INSTRUMENTATION:** complete automotive-type instrumentation featuring a display with battery low, hours worked, fault alert, hare/tortoise and service situation indicators. A dual-lever switch under the steering wheel allows the operator to turn on the lights and operate the turn indicators, horn and speed control. There is also a control panel to which the different service commands are wired when available in the vehicle.

**DRIVING POSITION:** the tractor has two well-sized cushioned seats with seat belts and seat occupancy micro. Access facilitated by platform height from ground level.

Excellent all-round visibility: the operator can also see the coupling point since a chute has been created in the platform to provide a clear view. The tractor features automotive-type pedals and a power steering system.

**POWER SUPPLY:** An 80 V 620 A battery ensures excellent driving range.

The battery can be easily removed vertically and replaced.

**SAFETY DEVICES:** seat occupancy micro and seat belt, speed selector, battery quick release device, battery safety retainer, double brake circuit, AC system for speed control, mechanical parking brake, redundant electronic components.

CHARACTERISTICS		dim.un.	
Manufacturer			
Model		BULL25	
Platform loading capacity	Nominal capacity	Kg.	200
Pull capacity	Load nominal capacity	Kg.	25000
Power type	Electric/Endothermic	electric	
Control type	Pedestrian/s stand-on/Seated	seated	
Tyres	Pn - pneum. / se - superel.	Pn/Se	
Wheels	Number front/rear X=drive	Nr.	2/2
Platform dimensions	h6 ( length x width)	mm.	1510x1160
<b>DIMENSIONS</b>			
	h= machine body hight	mm.	
	L= lenght	mm.	3150
	B=width	mm.	1350
	h 3 = feet panel hight	mm.	380
	h 4 = steering/handle hight	mm.	850
	h 2 = thiller hight		
	h 5 = seat hight	mm.	480
	h6=hight turning light	mm.	
	h 7 = cabin turning light hight	mm.	2120
	h 1 = cabin hight	mm.	2000
	h 9 = cabin width	mm.	1350
Turning radius	R1= front min. external	mm.	3600
	R2=rear min. external	mm.	2660
	R3=rear min.internal	mm.	1260
Aisle width	U-turn	mm.	6270
Hook hight	s = hook center to ground	mm.	330-430-530
<b>PERFORMANCE</b>			
Speed	Without / with load	Km./h	25/10
Tractive effort	Continuative work 60'	N.	5000
	Max in plane x 5"	N.	16000
Gradeability	Without/width	%	20-4%
Weight	With battery	Kg.	3900
Axles load	Front/rear with battery	Kg.	1800/2100
<b>TRACTION</b>			
Wheels	Front diam. / width	mm.	6.5-10
	Rear diam. / width	mm.	7,00-12
Wheelbase	y = pitch	mm.	1550
Trach	C posterior wheels center	mm.	1170
Ground clearance	clearance at half chassis	mm.	180
Working brake	Mecc./hydraul./elettr.	hydraul.disc	
	Brake axles number	N.	2
Parking brake	Mecc./hydraul./elettr.	mecc.	
Suspensions	Spring/laf spring/schock absorber	laf spring	
<b>POWER SUPPLY</b>			
Battery	Type	acid pb	
	Capacity	V./Ah.	80-620(c5)
	Weight	Kg.	1500
Electric motor	Translacion.power S2=60°	Kw.	20
Electric system	electronic control	Inverter AC 550.	
Steering	Mecc./hydraul./elettr.	hydraul	
Transmission	Mecc.	meccanic	
Towing hook	manual - automatic	manual-automatic	
Autonomy	working hours with medium work	h.	6-8

