

# ELECTRIC TRACTORS



## BULL LORRY

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**The Bull Lorry tractor** is a tractor-transporter with loading platform. An easy to use, versatile, sturdy vehicle that provides excellent performance.

It can transport loads of up to 1.5 tons and tow loads of up to 6 tons both indoors and outdoors. It comes in the open version or with cab. In both cases, it features two well-sized, comfortable seats equipped with seat belts. The cab is complete with windscreen wiper, revolving beacon, rear view mirrors and reverse gear.

It can also be equipped with a heating or air conditioning system.

The loading platform can be fitted with side panels, be supplied in the curtainsider version or with other equipment on request.

The floor in the driver's position is very low, which makes it easier for the operator to get in and out of the vehicle.

Bull Lorry has front and rear axle suspensions: this makes the machine very convenient during unloading and loading operations.

This characteristic is enhanced by the special tyred wheels which can be fitted on request.

The Bull Lorry tractor has an electro-hydraulically power-assisted drive.

Both the electronic control and traction motor are AC System and, similarly to all the other machine components, are in Class III.

As part of the standard equipment, the machine comes with a three-position hitch.

Automatic hitches with or without electrical release can be fitted on request.

When it needs to be replaced, the high-capacity battery can be removed both vertically and sideways, since it rests on rollers.



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**CHASSIS:** in very thick metal sheet forming a self-supporting rigid structure. Special coating provides protection against corrosion.

**SUSPENSIONS:** the machine is fitted with front and rear axle suspensions. The front axle is supported by two leaf springs, while the rear axle is cushioned by springs and shock absorbers. The wheels are the black no-marking superelastic tyred type.

**TRANSMISSION:** the vehicle is driven by an AC motor directly flanged on the differential axle. 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.

**ELECTRICAL SYSTEM:** an AC chopper monitors the performance of the motor.

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

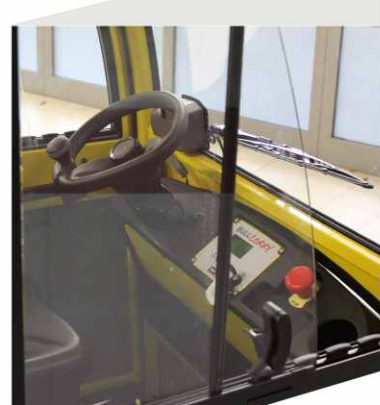
**BRAKE SYSTEM:** a pump, activated by the operator via pedal controls the hydraulic drum brakes by means of two circuits. The electrical system allows the motor to also act as a brake when the accelerator is released: in this case, the braking action is regenerative.

**INSTRUMENTATION:** complete motor car type instrumentation featuring a display with battery low, hours worked, fault indicators, hare / tortoise indicator, horn, light switch, turn indicator switch

**DRIVER POSITION:** comprises two well-sized cushioned seats with seat belts

**POWER SUPPLY:** A 48 V 370 A battery ensures considerable driving range.

**SAFETY DEVICES:** seat occupancy micro and seat belts, maximum speed selector, battery quick release device, battery safety retainer, double brake circuit, AC system for speed control, automatic parking brake.



**BULL LORRY with cabin**

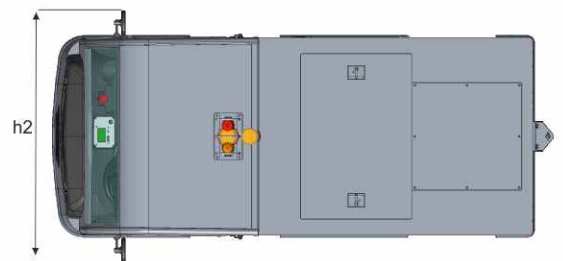
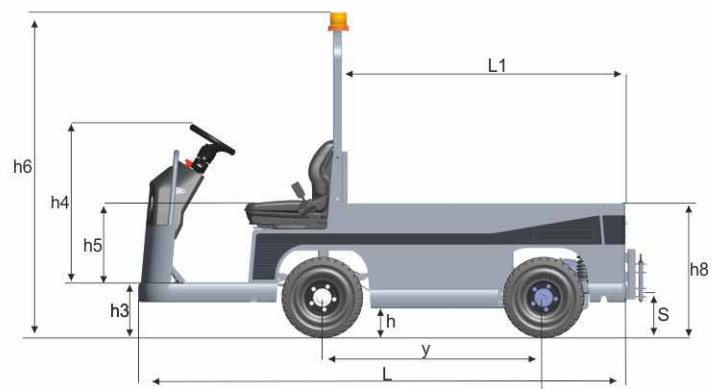


Our Lorry tractor/transporter is a further example of our production philosophy. Sturdy, compact structure, high quality components all made in Europe and excellent performance thanks to its significantly higher power. And since we believe that attractive looks create positive feelings even in the workplace, everything has been styled down to the last detail. We have also paid particular attention to another, increasingly important characteristic: ergonomics, ease of access and driver's position. The result is an excellent machine for work and driver comfort.

**BULL LORRY with aluminum sides**



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## CHARACTERISTICS

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Manufacturer			Bull LORRY
Model			Bull LORRY
Platform loading capacity	Nominal capacity	Kg	1500
Pull capacity	Load nominal capacity	Kg	6000
Power type	Electric/Endothermic		electric
Control type	Pedestrian/stand-on/Seated		seated
Tyres	Pn - pneum. / se - superel.		Pn / Se
Wheels	Number front/rear X=drive	N°	2 - 2/2x
Platform dimensions	L x B ( length x width)	mm	1600x1150

## DIMENSIONS

	h= machine body height	mm	170
	L= length	mm	2820
	B=width	mm	1180
	h 3 = feet panel height	mm	310
	h 4 = steering/handle height	mm	915
	h 2 = width mirrors with cabin	mm	1485
	h 5 = seat height	mm	500
	h 6 = turning light height	mm	1870
	h 7 = cabin turning light height	mm	1930
	h 1 = cabin height	mm	1830
	h 8 = loading platform height	mm	773
Turning radius	R1= front min. external	mm	2880
	R2=rear min. external	mm	1880
Aisle width	U-turn	mm	4950
Hook height	s = hook center to ground	mm	260-330-400

## PERFORMANCE

Speed	Without / with load	Km./h	18-12
Tractive effort	Continuative work 60'	N.	2100
	Max in plane x 5"	N.	5800
Gradeability	Without/width	%	see diagram
Weight	With battery	Kg	1680
Axles load	Front/rear with battery	Kg	820-860

## TRACTION

Wheels	Front diam./ width	mm	465 -130
	Rear diam./ width	mm	465 -130
Wheelbase	y = pitch	mm	1270
Trach	C wheels center	mm	975
Ground clearance	clearance at half chassis	mm	170
Working brake	Mecc./hydraul./eletr.		hydraulic
	Brake axles number	N	1
Parking brake	Mecc./hydraul./eletr.		Eletr.
Sus pensions	Spring/laf spring/schock absorber		Spring/laf spring

## POWER SUPPLY

Battery	Type		renforced
	Capacity	V/Ah	48-460(C5)
	Weight	Kg	550
Electric motor	Translation, power S2=60°	kW	5
Electric system	electronic control		Inverter AC
Steering	Mecc./hydraul./eletr.		idraulico
Transmission	Mecc.		mecc.
Towing hook	manual - automatic		manual
Autonomy	working hours witm medium work	h.	6-8

