

# 4-wheel electric tow tractor

## TE291

Towing Capacity 29000 kg

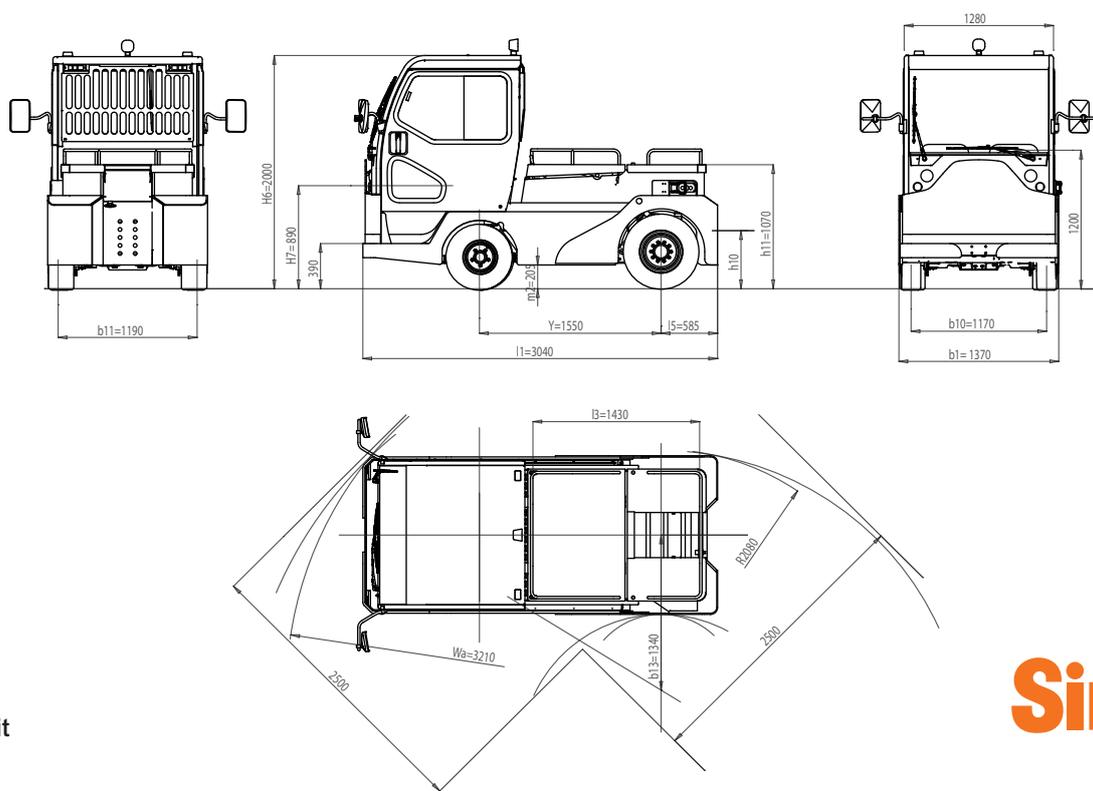


4-wheel tow tractor, man on board. Heavy-duty high-performance and long-range truck for industrial and airport duties. Despite its small size and turning radius, the TE291 has a high towing capacity. Loading capacity of wide rear platform 200 kg.

- “Shock resistant” **supporting perimeter chassis** ensures maximum exploitation of induction motor torque and optimum stability.
- **New-generation tyres:** lower rolling resistance, lower energy consumption and tyre wear.
- **Suspensions:** steel coil springs, stabiliser bar and shock absorbers in the front and in the rear.
- **Drum service brake** acting on 4 wheels - with twofold braking system. Front disk brakes and rear oil-bath multiple-disk brakes. Mechanical lever-type parking brake - negative hydraulic brake available upon request.
- Preset electrical **braking**, operating automatically when accelerator pedal is released, with first stroke of brake pedal and on reversing direction.
- Standard hydraulic **steering**.
- **2 operators on board.** Driving position in the front ensures excellent rear and front visibility. Suspension seats. Easy access to driving position thanks to low step-on platform.

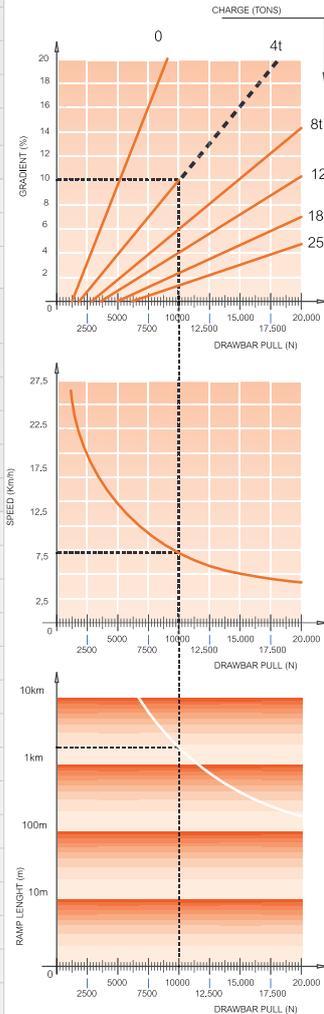
- **“Man on board” device** with seat occupancy sensor. Available with weather protection roof with front and rear windscreen and electric wipers. PVC canvas doors or cab with hinged or sliding side doors available.
- **Lighting system:** 2 front lights (dipped-beam/main-beam), 2 front turn indicators, 2 rear turn indicators, 2 rear lights (position/brake lights), 2 reversing lights. Full LED technology. Flashing light and blue lights available upon request.
- **Digital dashboard** with battery charge indicator, fault detection, speedometer and hour meter. 24 V DC/DC converter for auxiliary services.
- **Induction motor** with through shaft integrated into driveline.
- **Electronic speed control of AC motor** with energy recovery during deceleration and braking. Several towing hitches available. Rear inching control to ease coupling operations.
- **Battery** DIN 43536A 80 V 620 Ah fitted behind driving position for fast replacement from above. The truck is available in a longer version TE291L with DIN 43536A 80V 930Ah battery. Standard paint finish: chassis dark grey RAL 7021/body light grey RAL 7035. Other colours available upon request.

All parts are easy to access for fast and effective maintenance. Lower costs due to AC technology and modular design.



FEATURES	1.1	Manufacturer			SIMAI S.p.A.	
	1.2	Model			TE291	TE291L
	1.3	Drive			electric	
	1.4	Operator Type			Sitting driver	
	1.5	Load Capacity	Q	t	0,2	0,2
	1.5.1	Towing Capacity	Q	t	29	29
	1.7	Rated Drawbar pull	F	N	5800	5800
	1.9	Wheelbase	Y	mm	1550	1840
	WEIGHT	2.1	Service weight (w/battery)		Kg	4030
2.2		Axle loading laden front/rear (with operator 80 kg. each)		Kg	2350 / 2040	2630 / 2380
2.3		Axle loading unladen front/rear		Kg	2150 / 1880	2430 / 2220
TIRES, CHASSIS	3.1	Tyres:Cushion(Cu),Superelastic(SE), Pneus(Pn) Poliurethane (PE)			SE/Pn	SE/Pn
	3.2	Tyre size front			6.50-10	6.50-10
	3.3	Tyre size rear			7.00-12	7.00-12
	3.5	Wheels nr. Front/Rear (X=motive)			2 / 2X	2 / 2X
	3.6	Tread front	b <sub>10</sub>	mm	1170	1170
	3.7	Tread rear	b <sub>11</sub>	mm	1190	1190
	DIMENSIONS	4.7	Height of roof/cabin	h <sub>6</sub>	mm	2000
4.8		Seat height	h <sub>7</sub>	mm	890	890
4.8.1		Step on platform height		mm	390	390
4.12		Coupling height	h <sub>10</sub>	mm	310 - 380 - 450 - 520	310 - 380 - 450 - 520
4.13		Loading height (min / MAX)	h <sub>11</sub>	mm	1070	1070
4.16		Platform length	l <sub>3</sub>	mm	1430	1720
4.17		Rear overhang	l <sub>5</sub>	mm	585	585
4.18		Platform width	b <sub>9</sub>	mm	1060	1060
4.19		Overall length	l <sub>1</sub>	mm	3040	3330
4.21		Overall width	b <sub>1</sub>	mm	1370	1370
4.32		Ground clearance - centre of wheelbase	m <sub>2</sub>	mm	205	205
4.35		Turning radius front	Wa	mm	3210	3510
4.35.1		Turning radius rear		mm	2080	2080
4.36		Turning radius inner	b <sub>13</sub>	mm	1340	1340
4.36.1		Aisle width when turning 90°		mm	2500	2800
PERFORMANCES	5.1	Travel speed laden/unladen		Km/h	12 / 25	12 / 25
	5.5	Drawbar pull laden		N	-	-
	5.5.1	Drawbar pull unladen		N	5800	5800
	5.6	Max. Drawbar pull laden/unladen		N	- / 20000	- / 20000
	5.7	Gradeability laden/unladen		%	See chart	
	5.8	Max. Gradeability laden/unladen		%	See chart	
	5.10	Service / Parking brake (I=Hydraulic E=Electromagn. M=Mechanical)			I / M	I / M
	5.10.1	Type of service brake front/rear			Disk/wet brakes	
MOTOR	6.1	Drive motor rating S2=60 min		kW	20	20
	6.1.1	Hydrauling steering motor rating S2=60 min		kW	1	1
	6.3	Battery according to DIN 43531 / 35 / 36 A, B, C, no			DIN 43531A	
	6.4	Battery voltage	U	V	80	80
	6.4.1	Battery rated capacity	K <sub>5</sub>	Ah	620	930
	6.5	Battery weight		Kg	1565	2185
	6.6	Energy consumption (VDI cycle)		kWh/h	-	-
OTHER DATA	8.1	Drive Control			inverter AC	inverter AC
	8.4	Sound level at driver's ear according to DIN 12053		dB(A)	69	69
	8.5	Towing coupling, type DIN			-	-

READING EXAMPLE:  
 CHARGE = 4 TONS  
 GRADIENT = 10 %  
 DRAWBAR PULL = 10,000 N  
 SPEED = 8 Km/h  
 MAX PRACTICABLE RAMP LENGTH = 1800 m



As per VDI guidelines 2198, this datasheet applies to standard electric tractor / platform truck only.

Dimensions are not binding and can be changed in any moment. The performances must be intended for brand new machines, after having completed the running-in tested in San Donato Milanese Factory in normal climatic conditions. Performances and weight are to be intended with standard motors and battery (reported in bold) and with pneumatic tires. Some data can vary according to different equipments.

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