## **3-wheel electric tow tractor TTE30** Towing Capacity 3000 kg

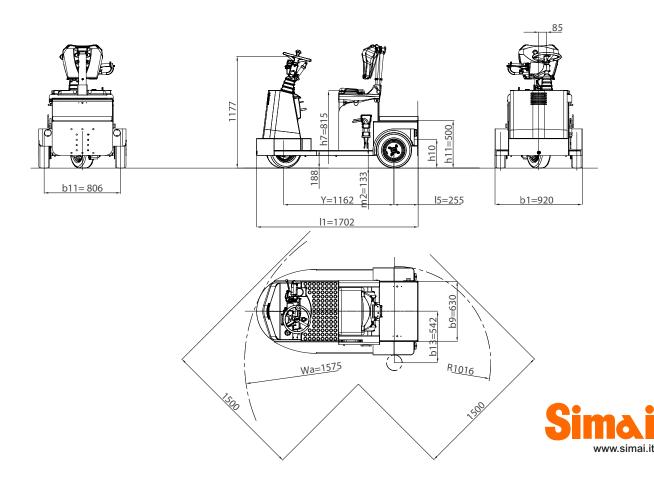


3-wheel tow tractor, man on board, with rear-wheel drive. Extremely compact and easy to drive, ideal for LEAN handling duties.

- "Shock resistant" **supporting chassis** ensures maximum exploitation of induction motor torque.
- Drum service brake acts on 2 rear wheels with motorbike-like lever. Electromagnetic parking brake. Preset electrical braking, operating automatically when accelerator handgrip is released, with first stroke of brake lever and on reversing direction.
- Fifth wheel mechanical steering.
- 1 operator on board. Optimised driving position for maximum comfort and efficiency, low step-on platform for comfortable access as well as user-friendly and ergonomic dashboard. Throttle accelerator. TTE30 is designed to be driven in a seated position over long stretches and in a standing position for delivery and picking operations along production line or in warehouse.
- "Man on board" device with seat occupancy sensor and sensor floor mat for driving while sitting or standing.
- Lighting system: 1 front light, 2 rear lights (position/brake lights). Horn. Flashing light, reversing light and blue lights available upon request.

- Multifunction digital dashboard with battery charge indicator, fault detection and hour meter.
- **Induction motor** equipped with encoder, thermal probes and negative electromagnetic parking brake with manual brake disengage lever.
- 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 43535B 24 V 360 Ah fast replacement from the side or above.
  Standard paint finish: chassis dark grey RAL 7021/body light grey RAL 7035 or signal yellow RAL 1003. 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   |                 |       | TTE30              |
|                | 1.3    | Drive   |                 |       | electric           |
|                | 1.4    | Operator Type   |                 |       | sitting / standing |
|                | 1.5    | Load Capacity   | Q               | t     | 0,1                |
|                | 1.5.1  | Towing Capacity   | Q               | t     | 3                  |
|                | 1.7    | Rated Drawbar pull  | F               | N     | 1000               |
|                | 1.9    | Wheelbase   | Y               | mm    | 1162               |
| WEIGHT         | 2.1    | Service weight (w/battery)  |                 | kg    | 523                |
|                | 2.2    | Axle loading laden front/rear (with operator 80 kg. each)         |                 | kg    | 218 / 485          |
|                | 2.3    | Axle loading unladen front/rear                                   |                 | kg    | 178 / 345          |
| TIRES, CHASSIS | 3.1    | Tyres:Cushion(Cu),Superelastic(SE), Pneus(Pn) Poliurethane (PE)   |                 |       | SE/Pn              |
|                | 3.2    | Tyre size front   |                 |       | 15x4,5-8           |
|                | 3.3    | Tyre size rear  |                 |       | 15x4,5-8           |
|                | 3.5    | Wheels nr. Front/Rear (X=motive)                                  |                 |       | 1 / 2X             |
|                | 3.6    | Tread front   | b <sub>10</sub> | mm    | -                  |
|                | 3.7    | Tread rear  | b <sub>11</sub> | mm    | 806                |
| DIMENSIONS     | 4.7    | Height of roof/cabin  | h <sub>6</sub>  | mm    | -                  |
|                | 4.8    | Seat height   | h <sub>7</sub>  | mm    | 815                |
|                | 4.8.1  | Step on platform height   |                 | mm    | 188                |
|                | 4.12   | Coupling height   | h <sub>10</sub> | mm    | 215 - 270 - 325    |
|                | 4.13   | Loading height (min / MAX)  | h <sub>11</sub> | mm    | 500                |
|                | 4.16   | Platform length   | I <sub>3</sub>  | mm    | 400                |
|                | 4.17   | Rear overhang   | $I_5$           | mm    | 255                |
|                | 4.18   | Platform width  | b <sub>9</sub>  | mm    | 630                |
|                | 4.19   | Overall length  | l <sub>1</sub>  | mm    | 1702               |
|                | 4.21   | Overall width   | b <sub>1</sub>  | mm    | 920                |
|                | 4.32   | Ground clearance - centre of wheelbase                            | m <sub>2</sub>  | mm    | 133                |
|                | 4.35   | Turning radius front  | Wa              | mm    | 1575               |
|                | 4.35.1 | Turning radius rear   |                 | mm    | 1016               |
|                | 4.36   | Turning radius inner  | b <sub>13</sub> | mm    | 542                |
|                | 4.36.1 | Aisle width when turning 90°                                      |                 | mm    | 1500               |
| MOTOR          | 5.1    | Travel speed laden/unladen  |                 | km/h  | 7 / 12             |
|                | 5.5    | Drawbar pull laden  |                 | N     | -                  |
|                | 5.5.1  | Drawbar pull unladen  |                 | N     | 1000               |
|                | 5.6    | Max. Drawbar pull laden/unladen                                   |                 | N     | - / 3000           |
|                | 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/E                |
|                | 5.10.1 | Type of service brake front/rear                                  |                 |       | - / drum           |
|                | 6.1    | Drive motor rating S260 min                                       |                 | kW    | 2                  |
|                | 6.1.1  | Hydrauling steering motor rating S260 min                         |                 | kW    | -                  |
|                | 6.3    | Battery according to DIN 43531 / 35 / 36 A, B, C, no              |                 |       | 43535 B            |
|                | 6.4    | Battery voltage   | U               | V     | 24                 |
|                | 6.4.1  | Battery rated capacity  | K <sub>5</sub>  | Ah    | 320 - <b>360</b>   |
|                | 6.5    | Battery weigth  |                 | kg    | 280 - <b>307</b>   |
|                | 6.6    | Energy consumption (EN 16796)                                     |                 | kWh/h | 1,08               |
| OTHER<br>DATA  | 8.1    | Drive Control   |                 |       | inverter AC        |
|                | 8.4    | Sound level at driver's ear according to DIN 12053                |                 | dB(A) | 69                 |
| 0 -            | 8.5    | Towing coupling, type DIN   |                 | - ( ) |                    |

<u>GRAPH 1:</u> i [%] = GRADIENT Mtr [ton] = TOWED LOAD F [N] = TRACTION FORCE SOLID CURVES: START & STOP ALLOWED

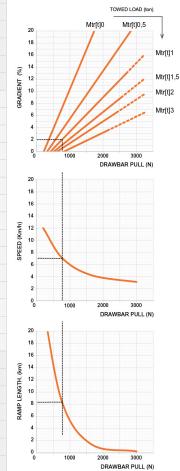
<u>GRAPH 2:</u> V0 [Km/h] = SPEED F [N] = TRACTION FORCE

TRAILERS WITH BRAKES ARE RECOMMENDED FOR LOADED DESCENTS. IF THIS IS NOT POSSIBLE, SPEED SHOULD BE LIMITED IN ACCORDANCE WITH OPERATING MANUAL.

<u>GRAPH 3:</u> s [Km] = RAMP LENGTH THAT CAN BE COVERED PER HOUR F [N] = TRACTION FORCE

EXAMPLE OF GRAPH READING: - TOWED LOAD (Mtr) = 1 t

- IONED USER (MI) - 1 1 - GRADIENT (MI) - 2 % - TRACTION FORCE (F) = 750 N - SPEED (V0) = 7 km/h - MAX. RAMP LENGTH THAT CAN BE COVERED PER HOUR (s) = 8 km



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 normaal climatic conditions. Performances and weight are to be intended with standard motors and battery (reported in bold) and with extra-elastic tires. Some data can vary according to different equipments.



