



Ø 200x50 twin



Ø 370x75 twin



Ø 300x75 single



Ø 400x95 twin rocking



Ø 300x75 single



Ø 150x45 twin



Ø 150x45 twin



Ø 240x65 with rotation lock



Ø 150x45 twin

Efficiency over time, of the pivoting fork, is possible. Often underestimate, the system which allows the rotation of the fork is an outstanding component in the performance of a trolley and it has always been to Bertoli a reason to research.

The pivoting wheel group, that equips Bertoli's trolley ensures for long time full efficiency, easy handling, agile steering and silent moving.

## FEATURES

Pivoting wheel groups, single or twinned:

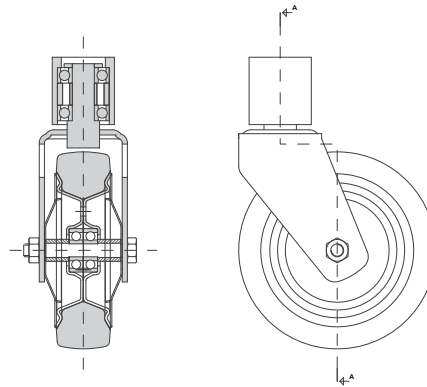
- Swivel support on rotating vertical hub, to distribute the load on double ball bearings, simple or double row
- Swivel support on continuous ball bearing fifth wheel
- Free or controlled rotation device

The choice of the right conformation wheel/ fork is the union between the different needs of capacity, handling, paving and use.

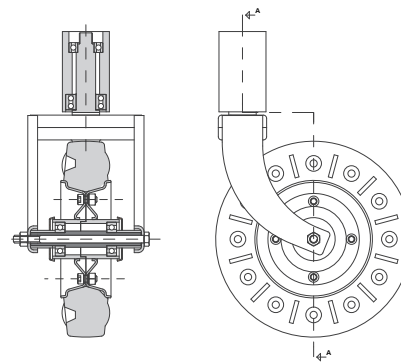
Twinned wheels solutions for:

- Reduce effort: sliding friction turns into rolling friction
- Increase capacity without modify height from the ground
- Uneven paving: easy run on grating paving
- Not coplanar paving: fork with rocking wheels axle

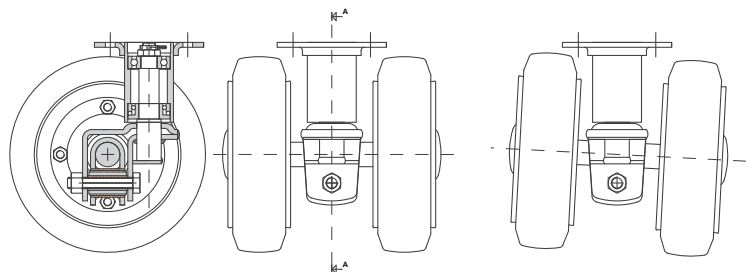
### FORK FOR BERTOLI WHEEL $\phi 150 \times 45$

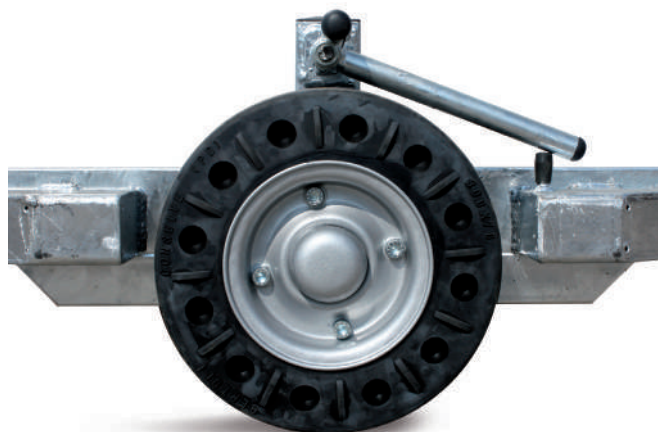


### FORK FOR BERTOLI WHEEL $\phi 300 \times 70$



### ROCKING FORK FOR BERTOLI WHEEL $\phi 240 \times 65$





Semiautomatic parking brake



Manual parking brake



Overrun hydraulic service brake

### SEMIAUTOMATIC PARKING BRAKE

Semiautomatic parking brake works when the drawbar is in vertical position. A safety device prevents the accidental fall of the drawbar. Special registers allow to maintain braking effectiveness until the wheels are completely worn.

Standard for trailer trolleys.

### MANUAL PARKING BRAKE

Normally placed at the thrust head, drive pedal works on the fixed wheels of the trolley. Fast and efficient, the system is equipped with a register to maintain full braking power up to the complete wear of the wheels.

Optional for hand trolleys, standard on some models.

### OVERRUN HYDRAULIC SERVICE BRAKE

Drawbar eye is connected to a telescopic movement with controlled reaction that operates a hydraulic pump. The wheels are equipped with expansion braking device, powered by the hydraulic pump. This device ensures an effective braking action, progressive and directly proportional to the carried load.

Optional for trailer trolleys.

### ABANDONMENT EMERGENCY HYDRAULIC BRAKE

The release of the drawbar from the tractor, intentionally or accidentally, operates the hydraulic pump that activates the braking system. This device guarantees an efficient and immediate braking action.

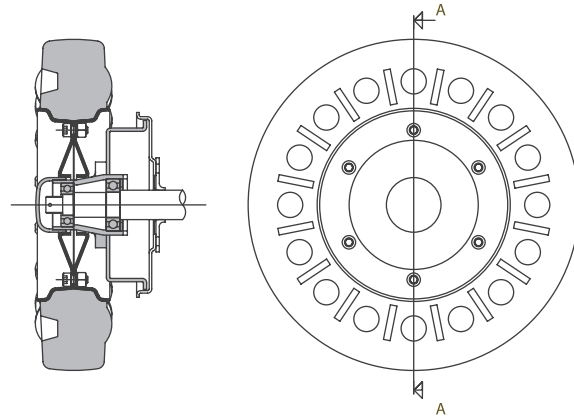
Optional for trailer trolleys.

### ABANDONMENT AUTOMATIC PARKING BRAKE

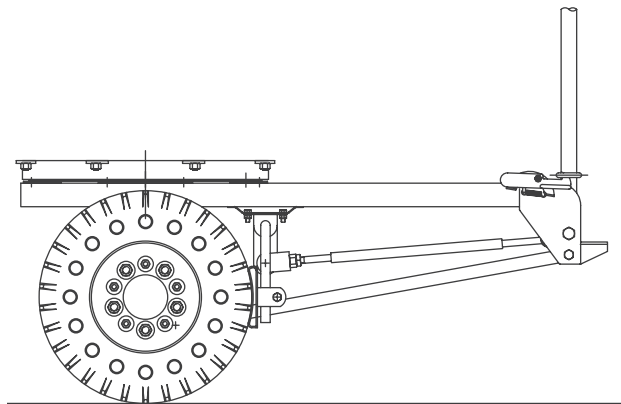
In case of intentionally or accidentally leaving the vehicle, it activates automatically an effective mechanical parking brake.

Optional for handling trolleys and for trailer trolleys.

### BERTOLI WHEEL Ø400X80 WITH BLOCK



### SEMIAUTOMATIC PARKING BRAKE





**MOD. 14 - RR** - Double drawbar



**MOD. 43 - RISE** - With full suspension



**MOD. 43 - RRV** - Double loading platform



**MOD. 43 - RRISE** - "V" loading platform



**MOD. 18 - S** - For shopping trolleys



**MOD. 2 - V**

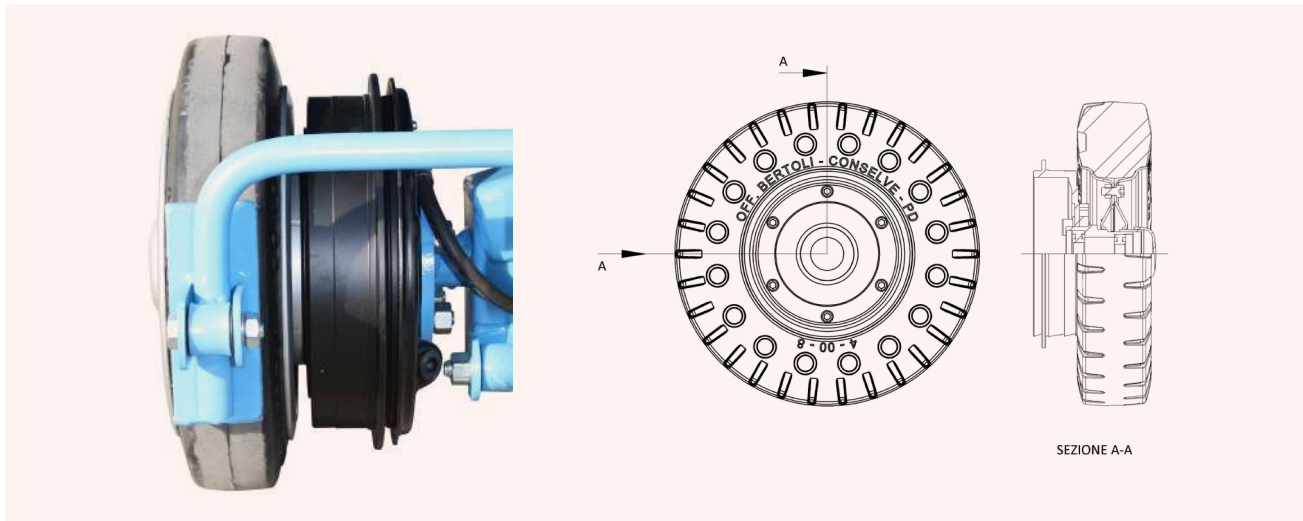
## OVERRUN HYDRAULIC SERVICE BRAKE

Drawbar eye is connected to a telescopic movement with controlled reaction that operates a hydraulic pump. The wheels are equipped with expansion braking device, powered by the hydraulic pump.

This device ensures an effective braking action, progressive and directly proportional to the carried load.

The tractor only needs a normal rear tow hook.

Optional for trailer trolleys.



## LOWBED PLATFORM

Rev. 01/2021



For shopping trolleys



Van version



With front suspension

## FEATURES

For Roll Container or Shopping Trolleys handling on long and/or bumpy run.

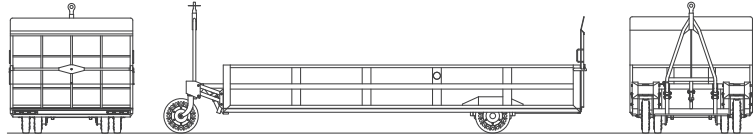
Our Low Platform trolleys "18 Series" are designed for this purpose and they are manufactured depending on their duty:

- Capacity, configuration and dimensions of the platform, fit to type of trolley to be transported
- Wheels and suspension equipment meet the needs of the existing paving
- Side or rear board with function of platform/chute, full or fractioned, to support the best use

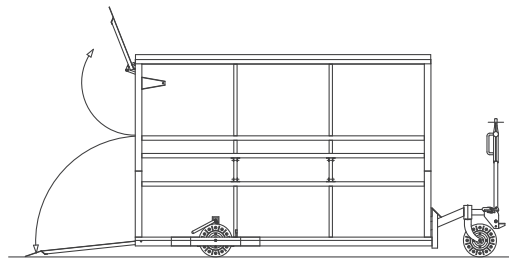
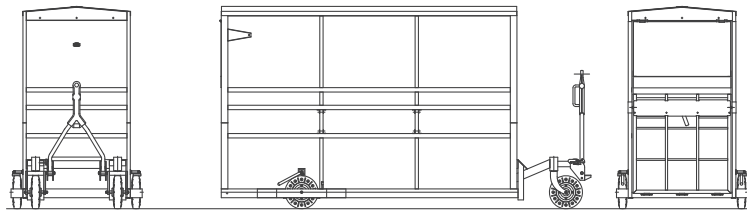
Some optional accessories:

- Independent wheel front suspension
- Iron carline and PVC covering
- Hot dip galvanising
- Overrun hydraulic service brake
- Mechanic parking brake
- Wrapping rubber buffer
- Lights/arrows/stop system

## MOD. 18-S



## MOD. 18-S VAN VERSION







**Discs bearing housing made from molding.**

$\varnothing$  80 x 25                       $\varnothing$  170 x 35  
 $\varnothing$  130 x 35                      $\varnothing$  200 x 50  
 $\varnothing$  150 x 45



**Discs with incorporated hub.**

$\varnothing$  220 x 60                       $\varnothing$  360 x 60  
 $\varnothing$  240 x 65                       $\varnothing$  370 x 75  
 $\varnothing$  300 x 75                       $\varnothing$  400 x 95  
 $\varnothing$  350 x 50                       $\varnothing$  550 x 75



**Semi-pneumatic wheel.**

$\varnothing$  300 x 70  
 $\varnothing$  400 x 80



**Super-elastic wheel.**

4.00-8                              18.7-8  
 5.00-8                              21.8-9

Often underestimated, wheel group has always given to Bertoli a reason to constant research and development. The wheel is one of the components that most influences the performance of a trolley.

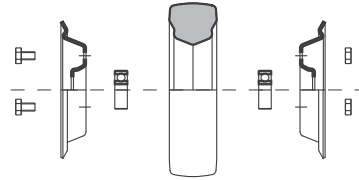
Bertoli has combined unique tractive effort with high silent travel. If the least physical effort and better handling can be appreciated during manual use, in mechanised towing the wheel group performance allows a greater autonomy of the tractors, thereby reducing how often batteries need to be recharged and extending its life.

With economic and environmental benefits.

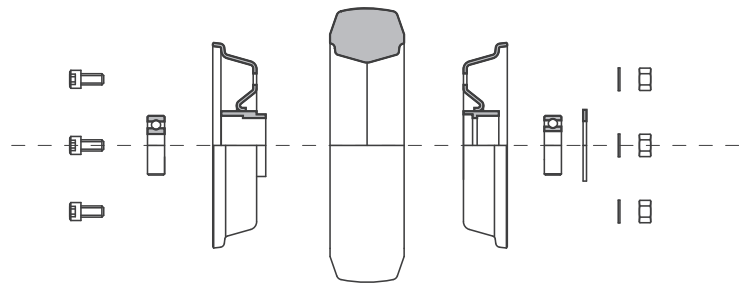
## FEATURES

- Traction effort lower than 100 N/t
- High elasticity
- Cannot be pierced
- Acid-proof, oil-proof, solvent-proof
- Anti-trace
- Bias-belt rubber rings made by crossed multiple layers of rubberised canvas
- Heat resistance from +180°C to - 45°
- More than 25 different diameters and sections
- Availability of different compounds, according to different needs
- Cantilever or fork assembling, single or multiple
- Lenticular section decomposable discs made off presswork sheet steel:
  1. Ball bearing housing obtained by high precision presswork for low capacities
  2. Double ball bearings incorporated hub, perfect grease seal, for high capacities
- Wheel groups:
  1. twinned, to reduce sliding friction turning into rolling friction
  2. multiple assembling for higher capacity and smoothness
  3. multiple assembling for non-planar paving or grating paving

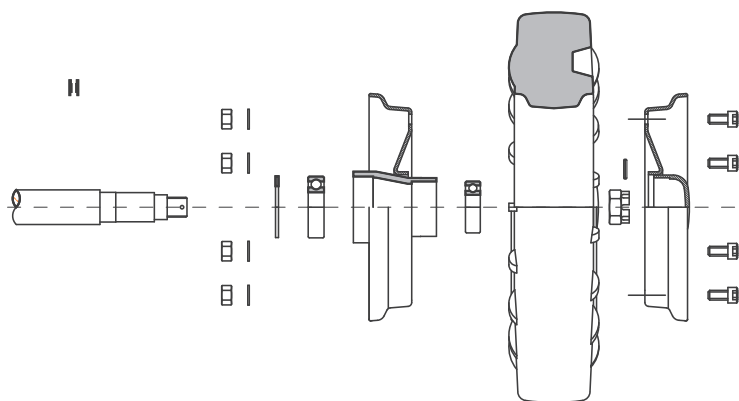
### BERTOLI Ø150X45 WHEEL



### BERTOLI Ø240X65 WHEEL



### BERTOLI Ø400X80 SEMI-PNEUMATIC WHEEL





MOD. 139-SF - Railway catering



MOD. 209



MOD. 109-3 - Paper converting machine company

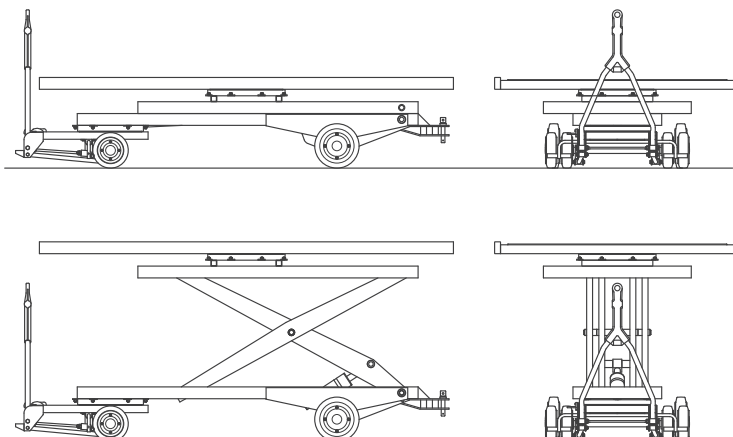
## FEATURES

Bertoli's experience in the lifting sector, gained with the construction of auto lifts, has been transferred into the achievements of trolleys with lifting systems:

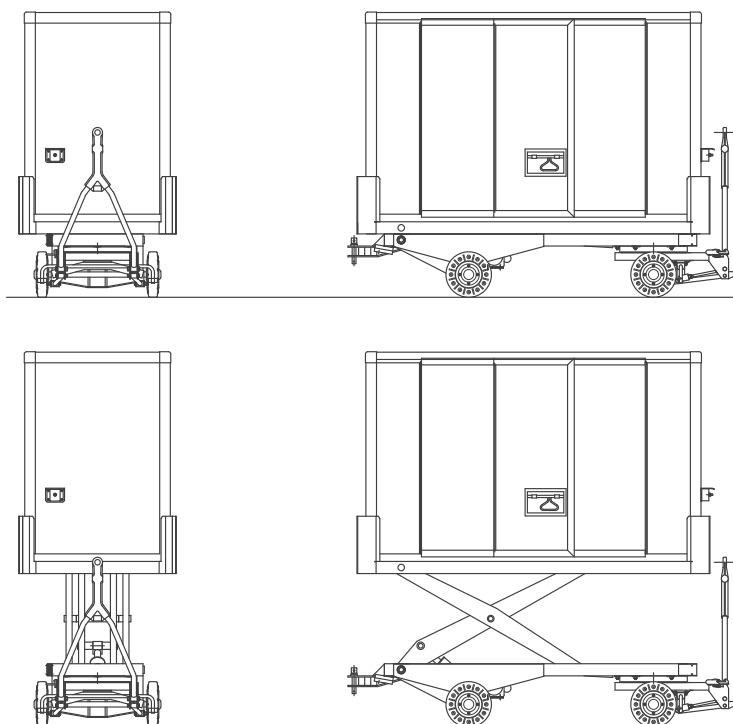
- Mold holders
- Platform equipped to carry railway batteries
- Refrigerate isothermal container
- Simple loading platform
- Housing for aircraft maintenance reactor
- Customized systems with equipment for special lifting

These are all examples of possible applications of this system.

### MOD. 293-F



### MOD. 139-SF





MOD. 43-RRISE - Rear suspension



MOD. 93-S7 - Rear suspension

## FEATURES

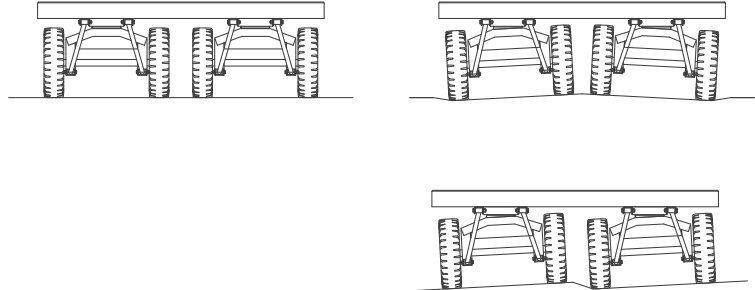
Our trailer trolleys are standard equipped with oscillating and amortized front axle.

Our particular production on a special rubber bearing is maintenance free, silent, allows the correct distribution of load and has no-torsion function for the frame. This system allows the creation of lighter frames without compromising strength.

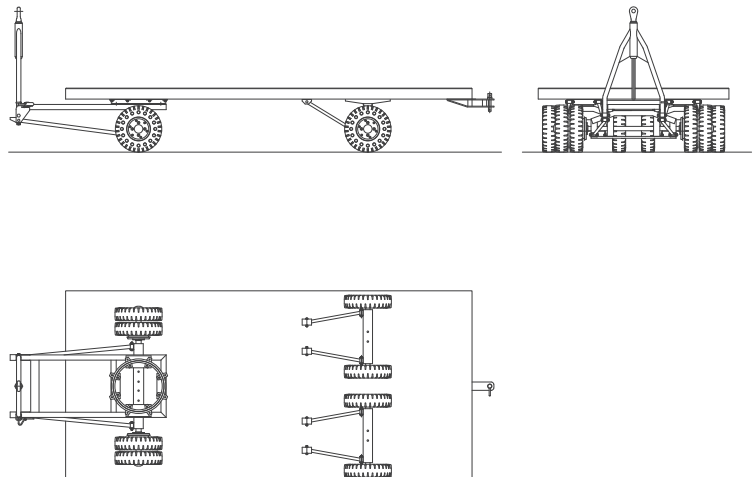
In case of particularly non-planar paving or transportation of delicate goods, we offer our full suspension system with independent wheels.

This system, also made by rubber cushions, is maintenance free. Silent running is particularly evident (both full and empty load). It guarantees the distribution of the load, without deforming the frame, perfect stability and the goodness of transported goods, even with irregularities in the paving.

## REAR SUSPENSION



## FULL SUSPENSION



## SYNCHRONISED STEERING SYSTEM



**MOD. 10-114** - Steering system on swivelling forks



**MOD. 243-RVSE** - Steering system on big steel ball-bearing fifth wheel



**MOD. 43-VRSE** - Steering system on big steel ball-bearing fifth wheel

## FEATURES

A convoy of a tractor and several trailer trolleys travels more easily and safely when all vehicles move along the same trajectory.

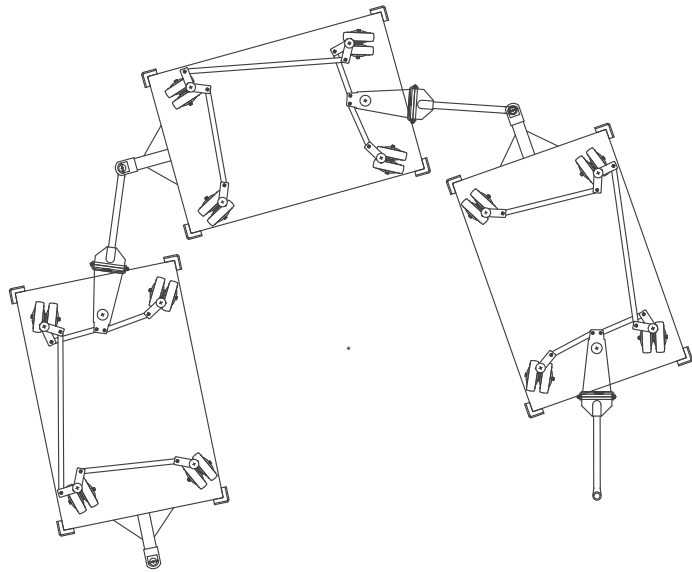
Our synchronized steering system, made with rigid bars with high precision geometry, needs no maintenance and guarantees that the entire convoy follows a single track, with tolerances limited to a few millimeters.

The design begins by studying the floor plan or the size of cargo required and anticipates turning spaces with detailed drawings.

Three different steering devices depending on the conditions of travel and type of use:

- Steel fifth wheel working on continuous pre-lubricated balls
- Forks swiveling on vertical hub with load distributed on double ball bearings
- Cantilevered stub axles rotating on vertical axial hub with load distributed on double ball bearings

## MOD. 10-G



## MOD. 43-VRSE

