

TRACK AND INFRASTRUCTURE INSPECTION LIGHTWEIGHT VEHICLE

MODEL **MINI 4-4**

The **Mini 4-4 Trolley** has been specifically developed to transport up to four persons. It works in both travel directions with its duplicated driving positions. It requires only minimal periodic maintenance for reduced down time and very low operating costs.



1. DESCRIPTION AND OPERATION

Other applications include track inspections by day or night with an optional high-performance flood lighting set which can be simply located, in one or both travelling directions.

The **Mini 4-4** can tow / propel one or two optional 500 kg gross total weight **Mini BT** trailers to transport materials, or one **Mini 1 Tonne** trailer with unitary loading capacity 850 kg to transport materials, or one optional **TT6** trailer to transport up to six personnel and their equipment.

Features include:

- Full bi-directional operation with duplicated driving positions at each end (with LED controls);
- Digital speedometer and odometer (kilometres or miles);
- A bespoke **Forward / Neutral / Reverse** gearbox allows direction of travel to be selected with the flick of a lever;
- Fully automatic transmission – press-and-go foot-operated throttle;
- Fully automatic, foot-operated deadman's / parking disk brakes;
- Four-wheel, foot-operated, hydraulic service disk brakes;
- Designed-in low routine maintenance requirements;
- Maintenance-free auto-selecting bi-directional LED marker lights;
- Cast aluminium uninsulated wheels running on full-width steel axles;

1. DESCRIPTION AND OPERATION (cont'd)

- Sealed for life maintenance-free bearings throughout;
- 2x LED headlights (mounted one each end of the **MINI 4-4**);
- Deadman's throttle electrical interlock which prevents the operator from trying to drive the engine against the deadman's brake;
- High intensity LED headlight (auto-selecting to follow direction of travel);
- Can tow / propel one or two optional 500 kg gross total weight **Mini BT** trailers to transport materials, or one **Mini 1 Tonne** trailer with unitary loading capacity 850 kg to transport materials. The MINI 4-4 is therefore equipped with two towing points including hydraulic inter-vehicle quick-release connections.

2. TECHNICAL DATA

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|--|--|
| – Track gauge: | 1 435 mm (<i>other on request</i>) |
| – Petrol engine Honda GX200 four stroke: | 5.5 hp at 3,600 rpm |
| – Minimum radius of curvature: | 10 m |
| – Maximum gradient: | 38,5 ‰ (3,85% or 1/26) with one loaded Mini BT trailer |
| – Maximum cant: | 200 mm |
| – Loading gauge: | complies with EN13977 / UIC 505-1, UK W6 A |
| – Frame: | All-welded tubular steel space frame |
| – Cast aluminum uninsulated wheels mounted on full width steel axles: | 4 |
| – Wheel diameter: | 383 mm |
| – Seats, high-back, padded: | 4 |
| – Speed: | from 0 to 20 kph – infinitely variable |
| – Service brake: | Hydraulic disk brakes, (<i>operating on both axles, actuated by operator's foot pedal</i>) |
| – Deadman's / auto-parking brake: | Mechanical disk brakes (<i>operating on both axles – spring applied – held-off by fully depressing operator's foot pedal</i>) |
| – Running lights (auto-selecting to follow direction of travel): | 2 Red / white high intensity LED lights |
| – High intensity LED headlight (auto-selecting to follow direction of travel): | 2 |
| – Autonomy: | ≈ 3 hours |
| – Warning horns (2x): | 12 V DC ≈ 100 dBA |

2. TECHNICAL DATA (cont'd)

- Dimensions:
 - Length: $\approx 2\,260$ mm
 - Width: $\approx 1\,640$ mm
 - Height: $\approx 1\,000$ mm
- Mass (base unit without any optional extras): ≈ 295 kg

3. ACCESSORIES AND OPTIONS (at extra price)

- **Track inspection flood lighting set (180° in front of the vehicle)**
5x halo-mounted, high intensity LED floodlights powered from MINI 4-4's own electrical system
- **Two track inspection flood lighting sets (360° illumination all around the vehicle, front and rear)**
Two sets off 5x halo-mounted, high intensity LED floodlights powered from MINI 4-4's own electrical system
- **Flashing amber warning beacon**
12 V, removable
- **1 litre capacity AFFF foam fire extinguisher**
- **Four two-points lap strap seat belts**
- **Under seats removable steel tool tray, black (50 kg capacity)**



3. ACCESSORIES AND OPTIONS (at extra price – Cont'd)

- **Travelling and handling system (on hard floor)**

Facilitates maneuvering and also on / off-tracking on level ground conditions (in workshop)



- **On/off-tracking & cross tracking device thanks double tri-wheel system**

(fourth picture on the right)

Allows three persons to on / off and cross track the MINI 4-4 without any manual lifting (for us on track up to maximum cant off 150 mm)



- **Insulated wheels**

(set of 4)

- **PVC removable rain canopy**

A 3-piece tubular steel frame with transparent PVC. Coverings all round to protect the crew from bad weather

- **Military-spec plugs and sockets**

Replaces the standard industrial grade items with mil-spec units (standards MIL-C-26482E)

- **Side safety mesh panels**

Steel mesh screens which prevent crew members leaning out sideways from the Mini 4-4 EX; recommended when used with adjacent lines open to traffic.

- **The Mini 1 tonne trailer (see following pages)**

- **The Mini BT trailer (see following pages)**

- **Taxi trailer model TT6 (see following pages)**

MINI BT TRAILER FOR MINI 4-4

MODEL MINI BT

A 4-wheeled, general purpose designed to be used specifically with the **Mini 4-4 Trolley** to transport tools and materials quickly and safely.



a. Description and operation

Can be used as a pair of trailers with a suitably specified **Mini 4-4 Trolley**, with one **Mini BT Trailer** connected to each end of the **Mini 4-4 Trolley** in a "Push : Pull" configuration.

The Mini BT trailer is equipped with hydraulic service disk brakes to its front axle – controlled directly by the towing or propelling Mini 4-4 Trolley's service brake pedal. It gives full service braking capability to the trailer, operated directly from the **Mini 4-4** operator's footbrake pedal, which is recommended when heavy loads and/or steep gradients are likely to be the normal usage for the trolley.

The Mini BT trailer is equipped with four handlers and four wooden tailgates to maintain the load in position.

b. Technical data

- Track gauge: 1 435 mm (*others on request*)
- Loading gauge: Complies with EN13977 / UIC 505-1, UK W6 A
- Cast aluminum uninsulated wheels mounted on full width steel axles: 4 off
- Wheel diameter: 383 mm

b. Technical data (cont'd)

- Towing speed: up to 20 kph
- Auto-parking brake: Disk brake, operating on front axle – spring applied – held-off by inter-vehicle coupling
- Maximum load to be transported per trailer: 360 kg
- Maximum cant: 200 mm
- Minimum radius of curvature: 10 m
- Wooden removable sideboards heights: 200 mm
- Dimensions:
 - Length: $\approx 2\,300$ mm
 - Width: $\approx 1\,640$ mm
 - Height: ≈ 400 mm
- Mass (base unit without any optional extras): ≈ 140 kg (*1,435 mm gauge version*)

c. Accessories and options (at extra price)

- **Insulated rail wheels**
(set of 4)

MINI 1 TONNE TRAILER FOR MINI 4-4

MODEL MINI 1 TONNE

A 4-wheeled, general purpose designed to be used specifically with the **Mini 4-4 Trolley** to transport tools and materials quickly and safely.



a. Description and operation

Can be used as a trailer with a suitably specified **Mini 4-4 Trolley**, as one **1 tonne Trailer** connected to the **Mini 4-4 Trolley**.

The Mini 1 tonne trailer is equipped with hydraulic service disk brakes to its front axle – controlled directly by the towing or propelling Mini 4-4 Trolley's service brake pedal. It gives full service braking capability to the trailer, operated directly from the **Mini 4-4** operator's footbrake pedal, which is recommended when heavy loads and/or steep gradients are likely to be the normal usage for the trolley.

The Mini 1 tonne trailer is equipped with four handlers and four wooden tailgates to maintain the load in position.

b. Technical data

- Track gauge: 1 435 mm (*others on request*)
- Loading gauge: Complies with UK W6 A
- Cast aluminum uninsulated wheels mounted on full width steel axles: 4 off

b. Technical data (cont'd)

- Wheel diameter: 383 mm
- Towing speed: up to 20 kph
- Auto-parking brake: Disk brake, operating on front axle – spring applied – held-off by inter-vehicle coupling
- Maximum load to be transported per trailer: 850 kg
- Maximum cant: 200 mm
- Minimum radius of curvature: 70 m
- Wooden removable sideboards heights: 200 mm
- Dimensions:
 - Length: $\approx 3\,020$ mm
 - Width: $\approx 1\,640$ mm
 - Height: ≈ 400 mm
- Deck dimensions:
 - Length: 2 500 mm
 - Width: 1 250 mm
- Mass (base unit without sideboards): ≈ 150 kg (*1,435 mm gauge version*)

c. Accessories and options (at extra price)

- **Insulated rail wheels**
(set of 4)

TT6 TRAILER FOR 6 PERSONS FOR MINI 4-4

MODEL TT6

Designed to work specifically with Geismar Trolleys and can be towed or propelled on-track, the **Taxi Trailer model TT6** has been purpose-made to transport personnel and their tools quickly and safely to the worksite.



a. Description and operation

Safety has been designed-in for the **Taxi Trailer**, with individual bucket seats provided for each person and a steel protection frame providing security for each individual passenger.

Disk braking systems assure safety – progressive hydraulic braking is controlled by the driver for normal service braking. Secondary break-away braking system is additionally provided with automatic parking brake application when uncoupling from the Trolley.

An open steel tool box is provided for transporting passenger's tools safely, separate from the passenger compartment.

The Taxi trailer is fitted with a LED headlight and LED red / white signalling lights powered by the MINI electrical system.

b. Technical data

- Track gauge: 1 435 mm (*others on request*)
- Loading gauge: Complies with EN13977 / UIC 505-1
- Towing speed: up to 20 kph
- Seating: 6 people
- Total load capacity: 780 kg
- Cast aluminum uninsulated wheels: 4 off
- Wheel diameter: 383 mm
- Dimensions:
 - Length: \approx 2 000 mm
 - Width: \approx 1 630 mm
 - Height: \approx 930 mm
- Mass: \approx 220 kg (*1,435 mm gauge version*)

c. Accessories and options (at extra price)

- **Insulated rail wheels**
(*set of 4*)
- **1 litre capacity AFFF foam fire extinguisher**