

TWISTER DOLLY



Manual TWISTER | E | 04-2008

MANUAL

PANTHER GmbH

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1. Introduction

Congratulations to your decision to buy or rent a PANTHER - TWISTER Dolly. We are very pleased that you have chosen our product, which combines state-of-the-art technology.

High-quality material and sound know-how, as well as a clever concept enable your TWISTER Dolly to do a professional job, which you will really enjoy when doing your responsible work at the set.

Your new TWISTER Dolly is a high-quality tool, which enables the creative camera man to do an excellent job – fast and easy – with fantastic shots and camera moves.

The TWISTER Dolly is a product that has been created and built by experts for experts – to satisfy the high demands of every camera man.

We hope that you will have a lot of pleasure with your TWISTER Dolly. In order to guarantee the highest security and reliability in our product at the set, please study our operating manual very carefully!

All the best

PANTHER GmbH

2. To the grip

Sloppy assembly, disassembly and operating have created and will also create in future damages and physical injury, as well as death of involved or even uninvolved persons.

The following operating instructions should explain to the grip how to work with the camera crane and should also make aware and give advice to take care of possible dangers.

Accidents can only be avoided if the dangers are well known and the common sense is activated.

3. Specification

payload:	<i>maximum</i>	270 kg / 595 lb
turning circle:	<i>inside</i>	420 mm / 1'6"
	<i>outside</i>	1160 mm / 3'10"
length:		1160 mm / 3'10"
width:	<i>wheels indented</i>	785 mm / 2'7"
	<i>wheels disengaged</i>	865 mm / 2'10"
platform height:		195 mm / 7.7"
track gauge width:	<i>wheels disengaged</i>	620 mm / 2'
	<i>wheels indented</i>	540 mm / 1'9"
pneumatic wheels:	<i>diameter</i>	250 mm / 10"
track wheels:	<i>diameter</i>	107 mm / 4.2"

Fig. 3.0.1
TWISTER, top view

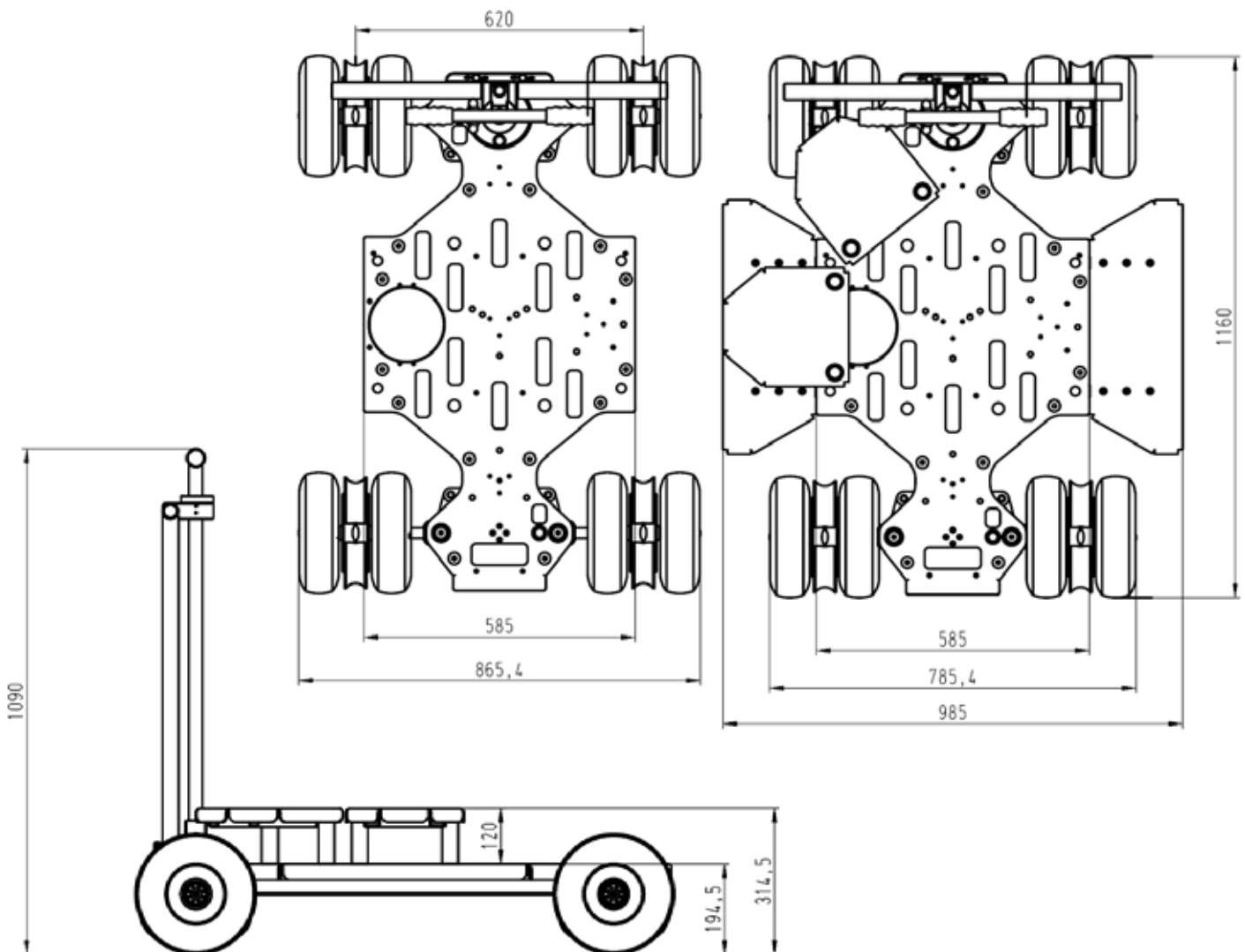
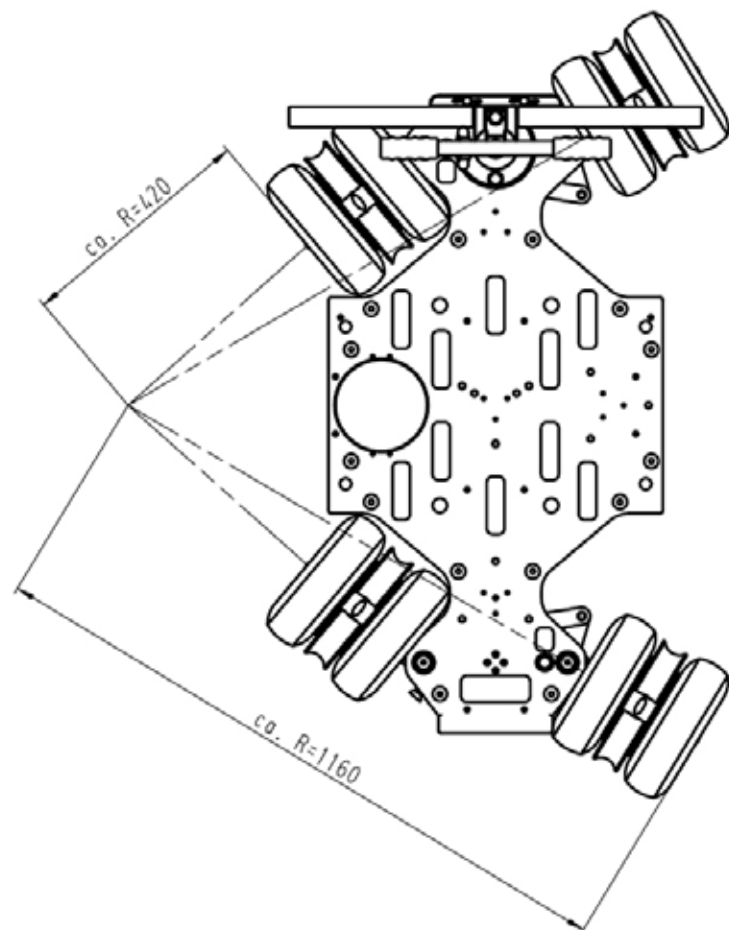
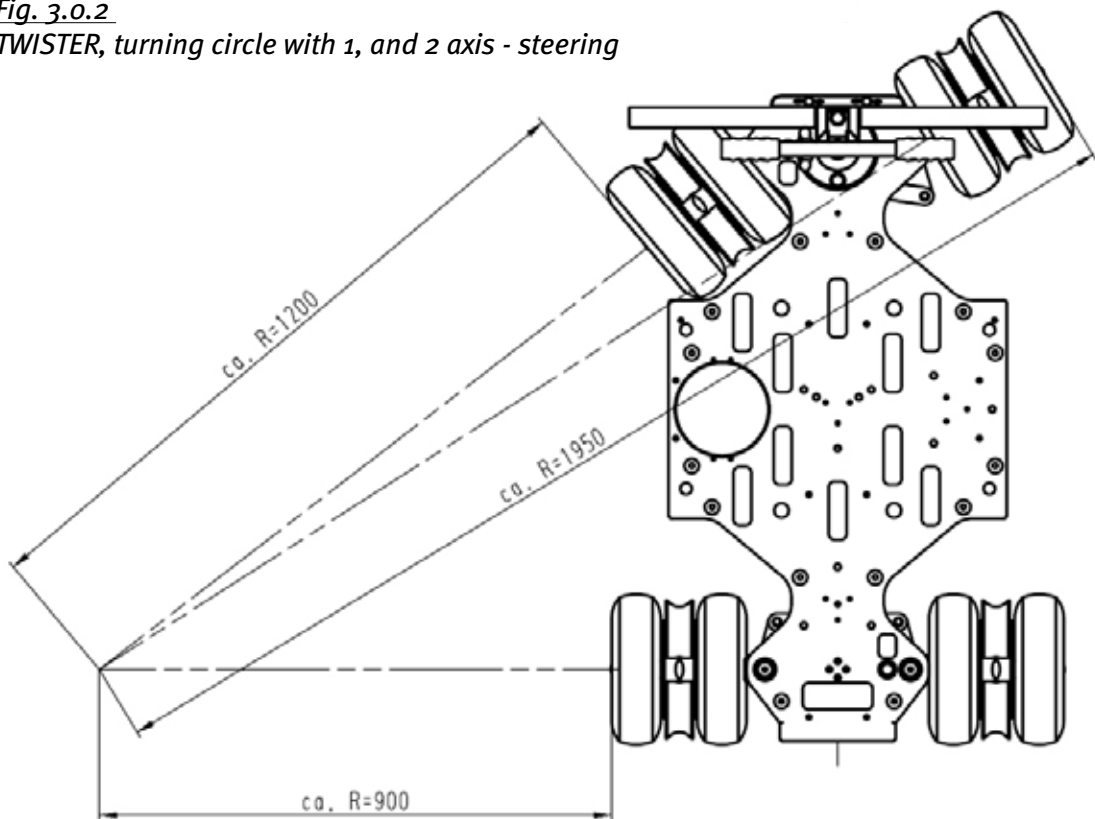


Fig. 3.0.2
TWISTER, turning circle with 1, and 2 axis - steering



3.1 Overview

- ❶ Dolly platform
- ❷ front axle
- ❸ rear axle
- ❹ push bar
- ❺ steering rod / draw bar

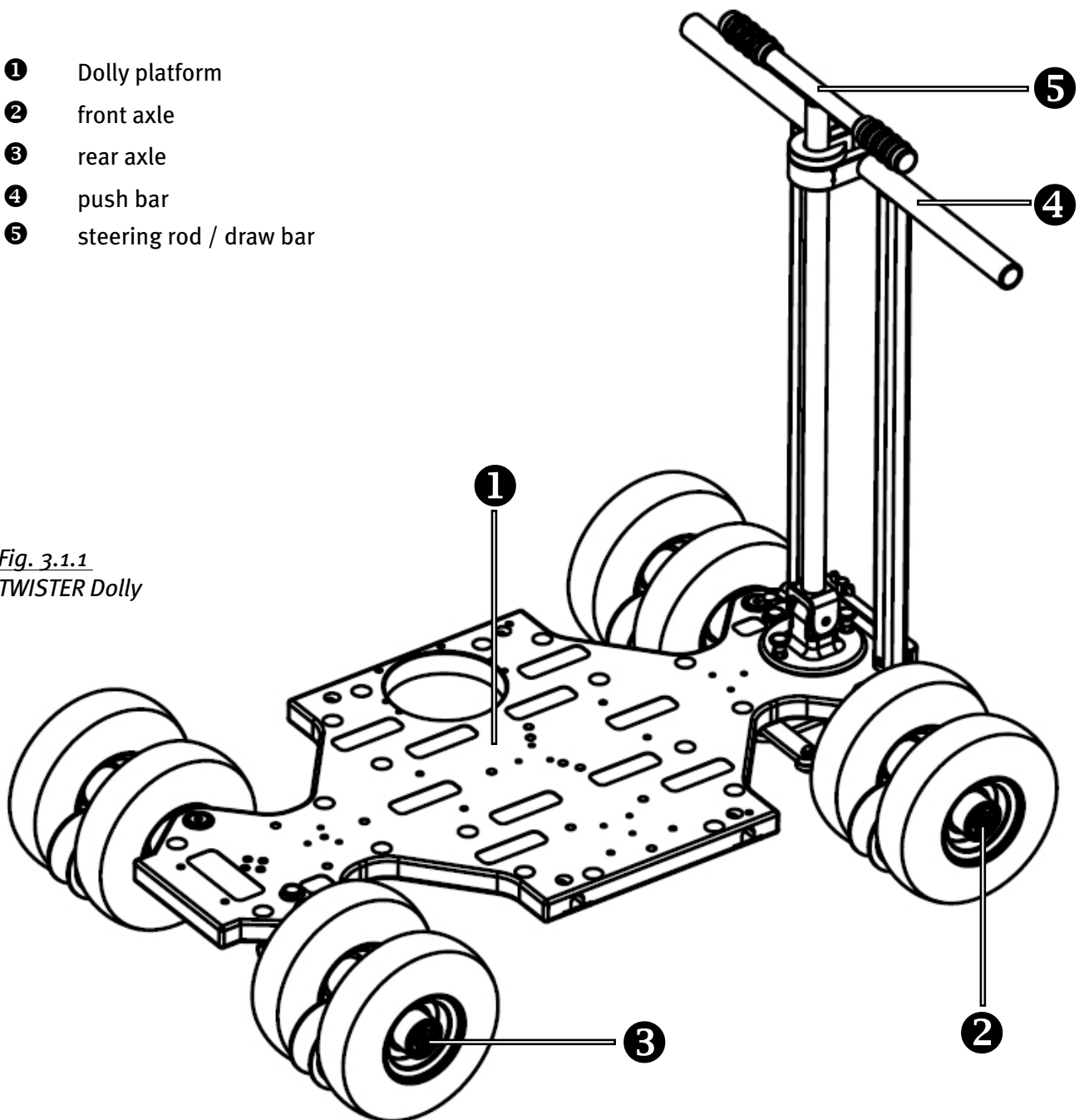


Fig. 3.1.1
TWISTER Dolly

- ❶ locking pin to arrest front steering (FRONT STEERING - LOCK/UNLOCK)
- ❷ locking pin for front steering mode (FRONT STEERING - ON/OFF)
- ❸ locking pin for rear steering mode (REAR STEERING - ON/OFF)
- ❹ anti sliding pad
- ❺ pneumatic wheel
- ❻ track wheel
- ❼ locking pin to arrest rear steering (REAR STEERING - LOCK/UNLOCK)
- ❽ locking screw for the transport position of the track wheels
- ❾ locking pin to arrest axis disengaging
- ❿ steering control cable
- ⓫ mouting plate for left and right platform (OPTION)

Fig. 3.1.2
TWISTER Dolly
top view

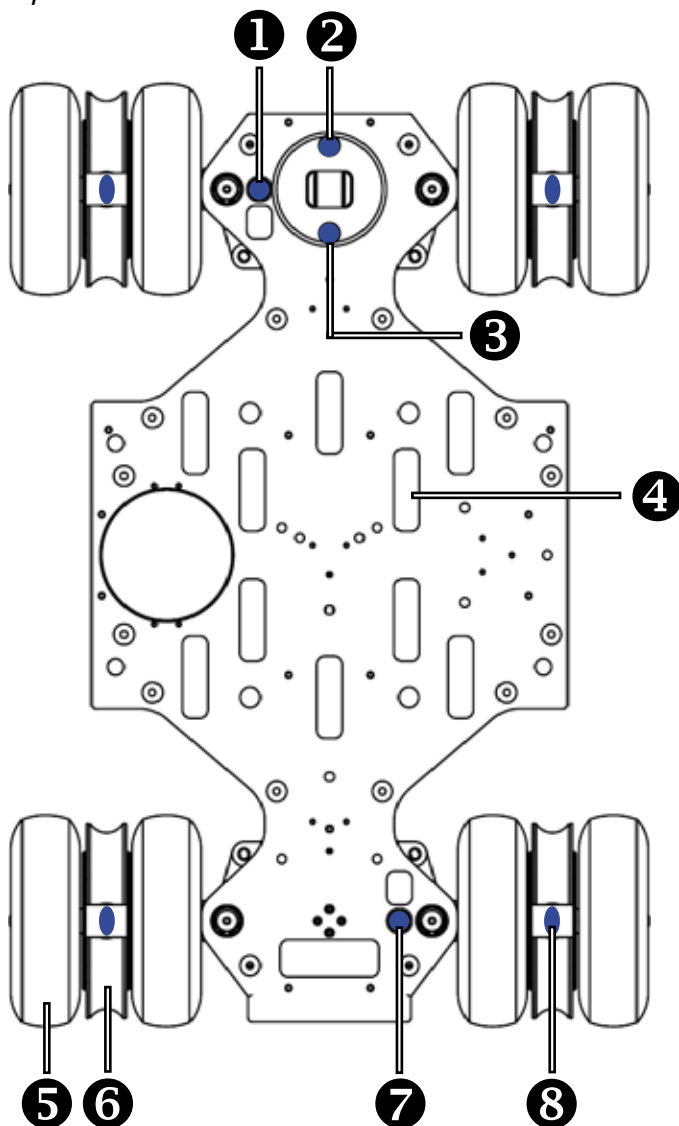
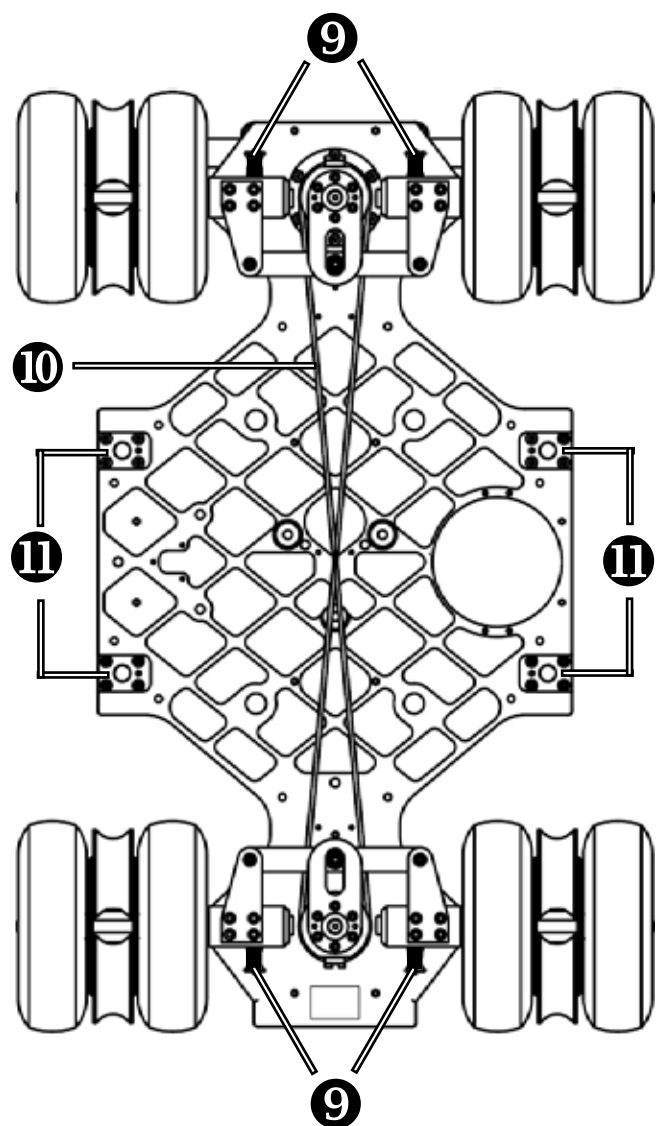
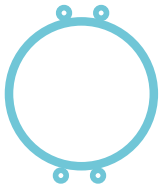


Fig. 3.1.3
TWISTER Dolly
bottom view

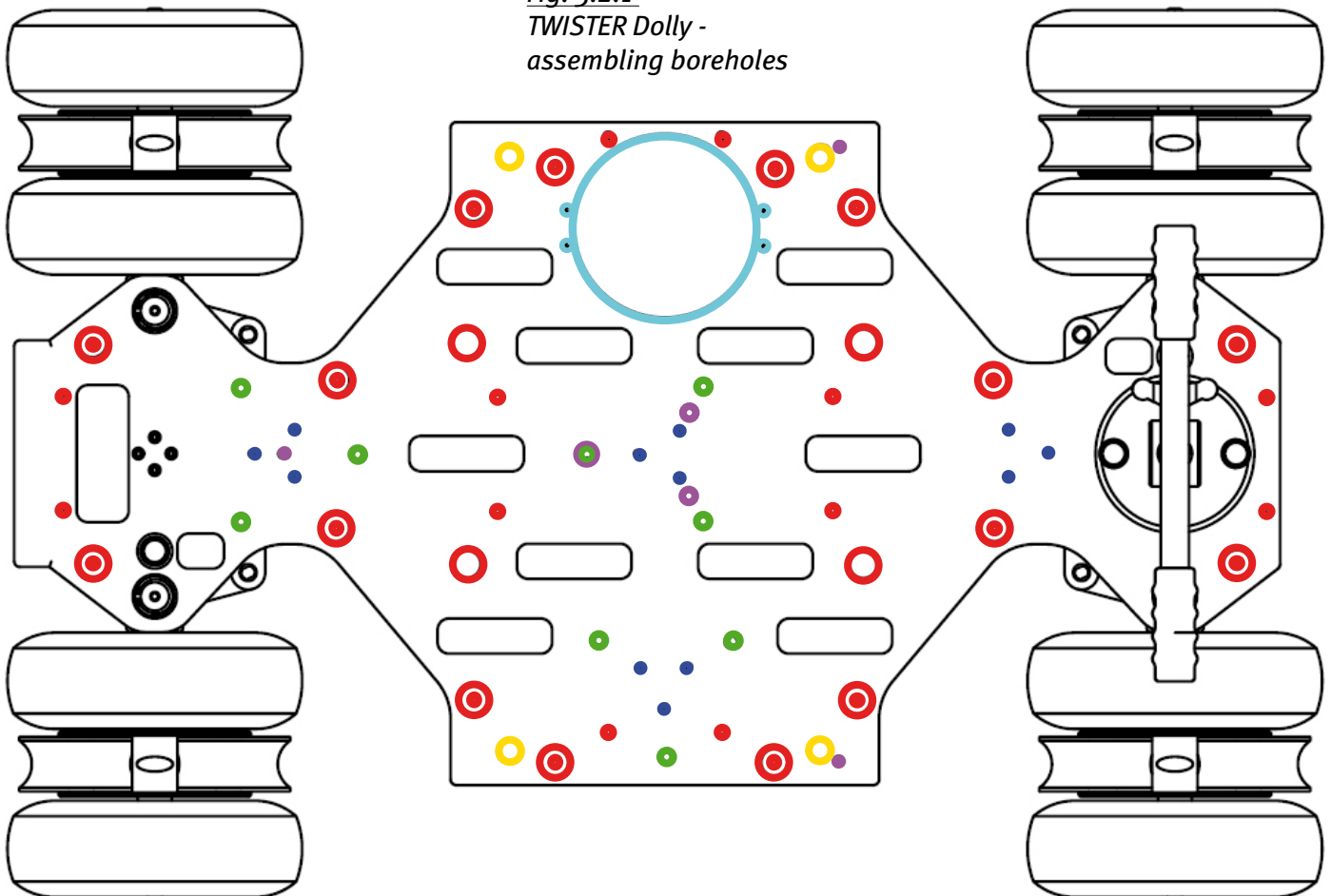


3.2 assembling boreholes

- *green:* three hole assembling for e. g. turnstile attachment (code no. 100374)
- *blue:* three hole assembling for e. g. euroadapter (code no. 122209)
- *red:* two hole assembling for push bar (code no. 166786) and center hole for assembling the level platform (code no. 169632)
- *red small:* two hole assembling for push bar (code no. 166786)
- rot:* two hole assembling w/o center hole for push bar (code no. 166786)
- yellow:* two holes for upright assembling of the side platforms (code no. 169347)
- purple:* two holes for tripod spreader (code no. 165396)
- light blue:* aperture for bowl 150 mm (code no. 107374) and 100 mm (code no. 100383)



*Fig. 3.2.1
TWISTER Dolly -
assembling boreholes*



4. Operation

Basics

The TWISTER Dolly can be used for both movie and video applications. As a Doorway Dolly with combined pneumatic and track wheels it offers high maneuverability and flexibility.

You simply guide the TWISTER Dolly in its full configuration very conveniently over the drive-up ramp onto the tracks and, when necessary, put it back on the tires. No carrying or conversion of the Dolly is required to switch between tire and track operation.

4.1 Normal and Track Operation

The TWISTER Dolly permits you to run on tires or on tracks without time-consuming modifications. This is accomplished by simply moving the wheels in and out.

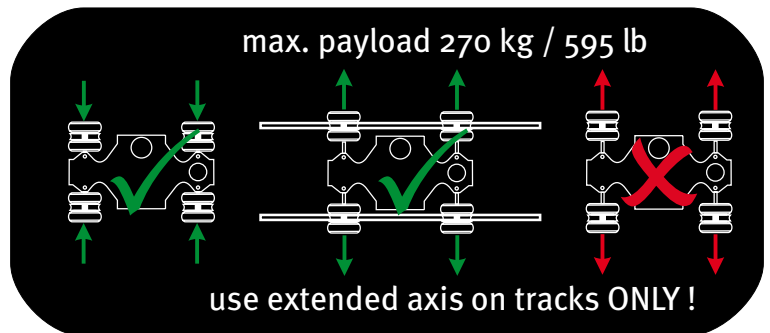
The track width in this case corresponds to the track wheels when the wheels are extended exactly to the standard 620 mm or 2 feet gauge track. Travel is possible on tracks with up to an inner turning radius of at least 3 meters.

In normal operation with wheels tucked in, the width of the Dolly is reduced to 78.5 cm, permitting you to navigate easily through 80 cm wide doorposts.



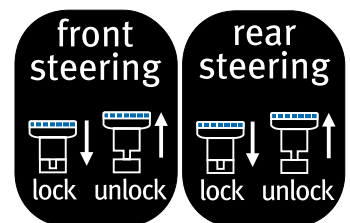
WARNING !

The extended wheels are permitted **EXCLUSIVELY** for track operation. For operation on tires all wheels **MUST** be drawn in!



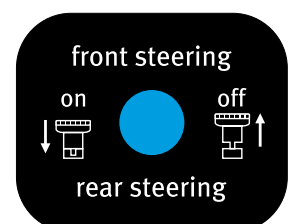
WARNING !

For track operation both lock bolts, **FRONT** and **REAR STEERING**, must be set to **UNLOCK**.



WARNING !

For track operation, one of the two lock bolts on the steering disk **FRONT** and **REAR STEERING** must be set to **OFF**.



Expanding wheels (for track operation)

- 1 Open the locking bolts below the Dolly for this purpose. To do this the bolts must be pulled out slightly and rotated 90°.



INFO !
The lock bolt is open when its locking teeth are NOT engaged.

- 2 Move the entire wheel assembly outward. For this purpose, pull the inner tire outwards.



INFO !
It is helpful to slightly lift the Dolly or to relieve the load on one side.

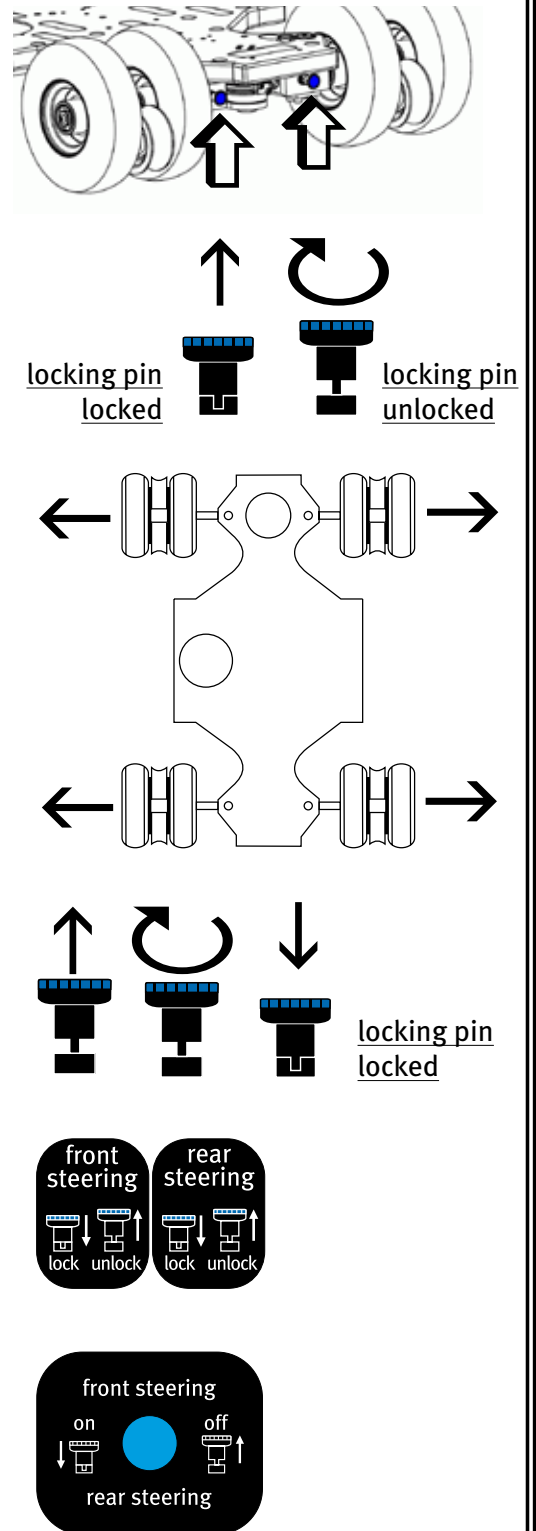
- 3 Now close the lock bolt. To do this it must be pulled out slightly and rotated 90° and snapped into place. The teeth on the bolt must re-engage.



WARNING !
For track operation both lock bolts, FRONT and REAR STEERING, must be set to UNLOCK.



WARNING !
For track operation, one of the two lock bolts on the steering disk FRONT and REAR STEERING must be set to OFF.



4.2 the steering

You can navigate the TWISTER Dolly precisely around the set by using the three optional steering modes: FRONT, REAR and ROUND-A-ROUND.

The steering modes are rapidly switched without using a tool via the lock bolts on the axles and on the steering disk.

Depending on requirements, in this case either only the front or rear wheels move independently of each other or all four wheels move together.

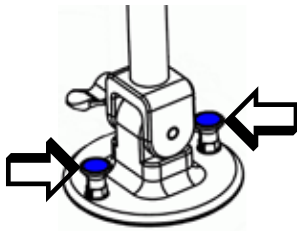


Fig. 3.2.1
steering disc with FRONT,
REAR STEERING ON/OFF

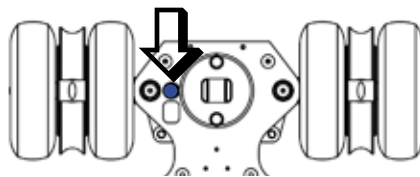


Fig. 3.2.2
front axle with FRONT
STEERING LOCK/UNLOCK

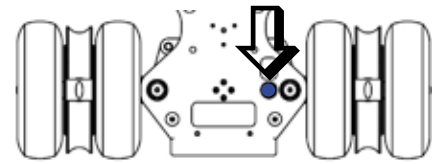


Fig. 3.2.3
rear axle with REAR
STEERING LOCK/UNLOCK

Changing the steering mode

FRONT STEERING

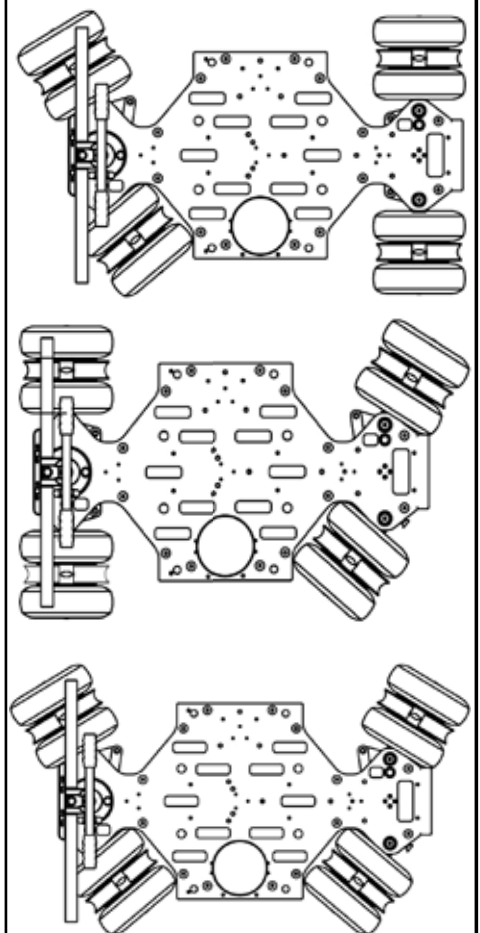
- ❶ locking pin on the front axle FRONT STEERING to UNLOCK
- ❷ locking pin on the steering disc FRONT STEERING to ON
- ❸ locking pin on the steering disc REAR STEERING to OFF
- ❹ locking pin on the rear axle REAR STEERING to LOCK

REAR STEERING

- ❶ locking pin on the front axle FRONT STEERING to LOCK
- ❷ locking pin on the steering disc FRONT STEERING to OFF
- ❸ locking pin on the steering disc REAR STEERING to ON
- ❹ locking pin on the rear axle REAR STEERING to UNLOCK

ROUND A ROUND STEERING

- ❶ locking pin on the front axle FRONT STEERING to UNLOCK
- ❷ locking pin on the steering disc FRONT STEERING to ON
- ❸ locking pin on the steering disc REAR STEERING to ON
- ❹ locking pin on the rear axle REAR STEERING to UNLOCK



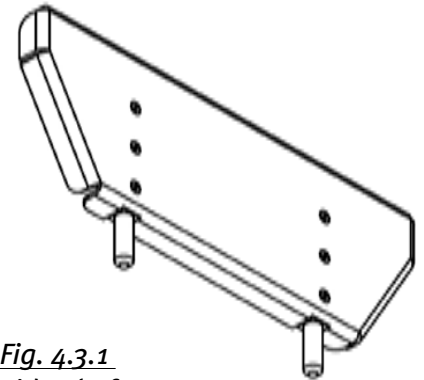
4.3 Side platform

The TWISTER Dolly has up to two optional detachable platforms. These platforms permit a lateral expansion of the platform size.



WARNING !

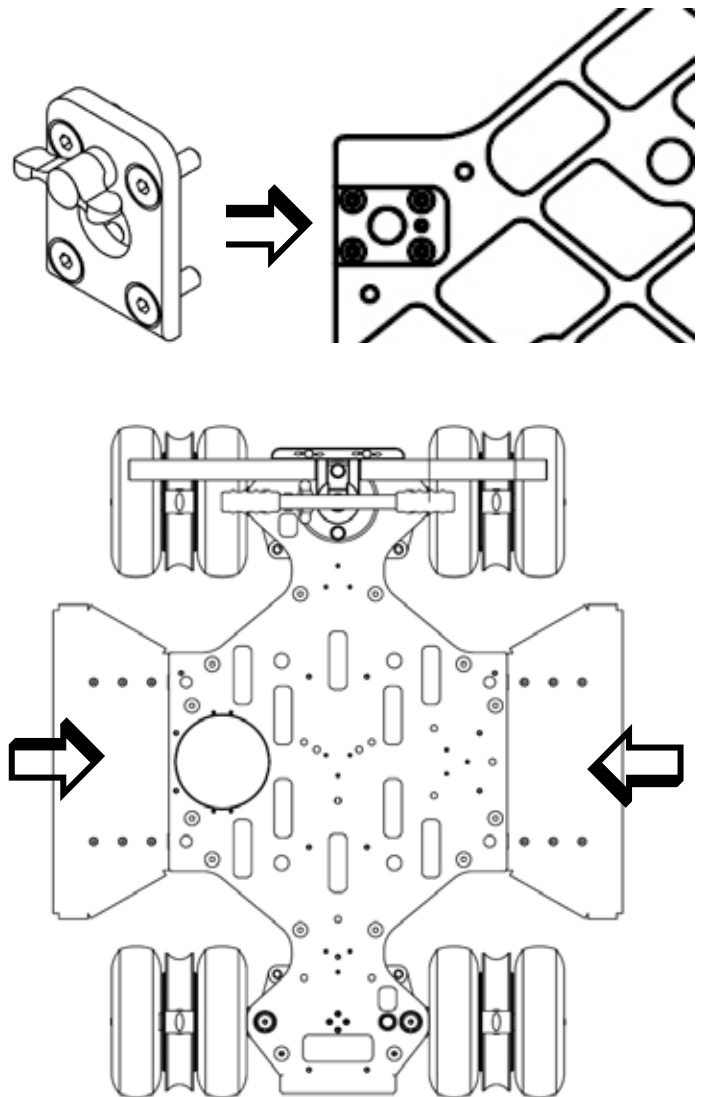
The maximum load that the detachable platforms can support is 100 kg / 220 lb !!



*Fig. 4.3.1
side platform,
code no. 169347*

Installing side platform

- ❶ Install the two mounting plates delivered with the detachable platform below the Dolly platform with four screws.
- ❷ Push the detachable platform into the two side borings on the Dolly platform.
- ❸ Secure the platform with the two wing bolts.



4.4 Level platform

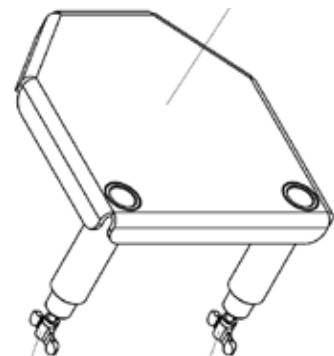
The TWISTER Dolly has optional level platforms. With these platforms the Dolly can also, for the first time, be expanded in the vertical direction.



WARNING !

The maximum load that the detachable platforms can support is 100 kg / 220 lb !!

No more than two level platforms can be mounted one above the other.

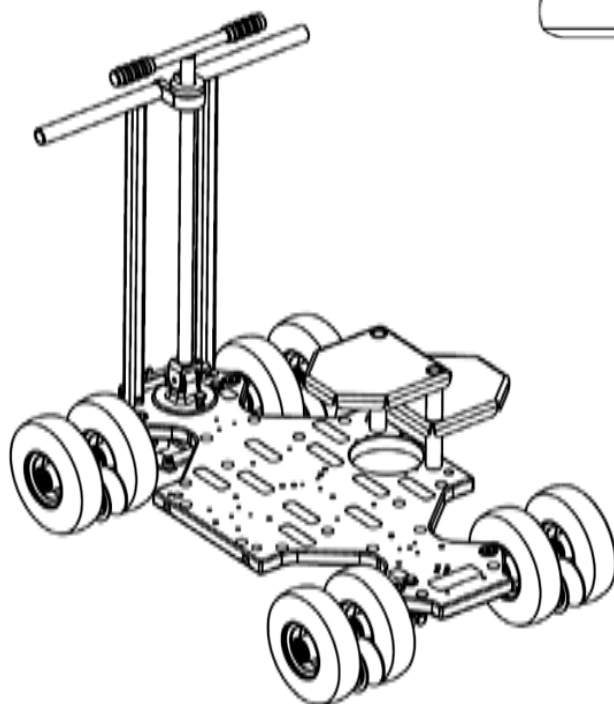
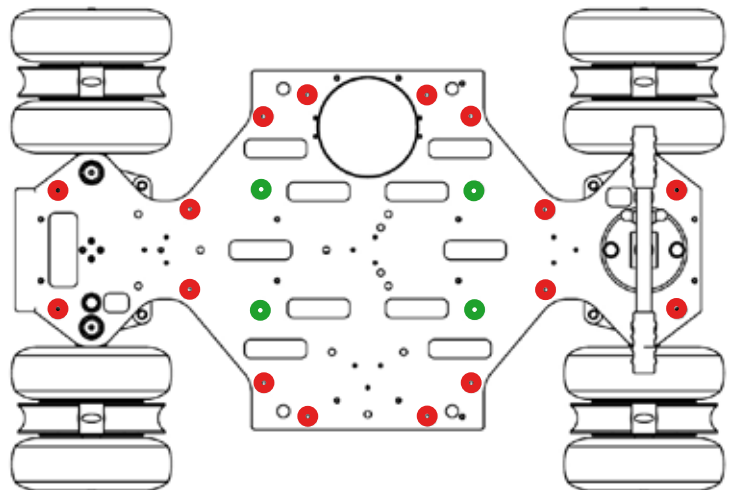


*Fig. 4.4.1
level platform
code no. 169632*

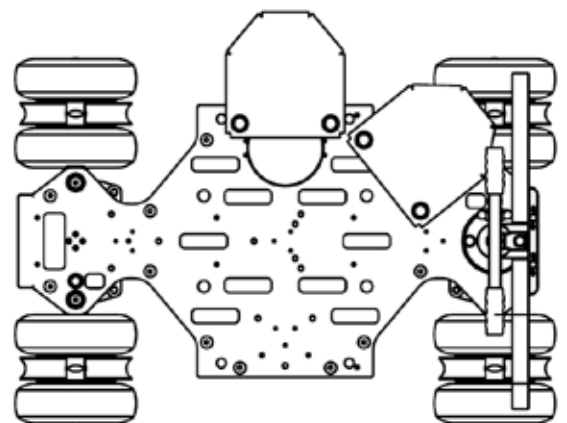
The Twister Dolly has 8 external (red) and 4 internal (green) mounting borings.

On the outer (red) mounting borings the platform can additionally be affixed with two wing bolts.

In most positions the stage platform can be mounted in two different alignments.



*Fig. 4.4.2
example of use, level platform*



5. shipping

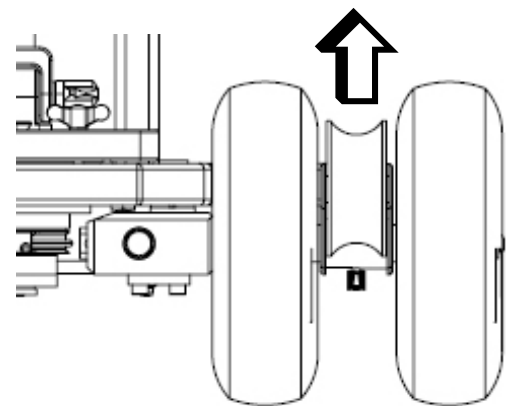
For transporting the TWISTER Dolly it is generally advisable to move the wheels into the retracted position. It is also sometimes advisable to remove the push rods and to fold the steering rod forward 90 degrees.

To protect the track wheels against damage in normal operations they may be moved into a transporting position. For this purpose the track wheel can be rotated upward and fixed in place with the setscrews.

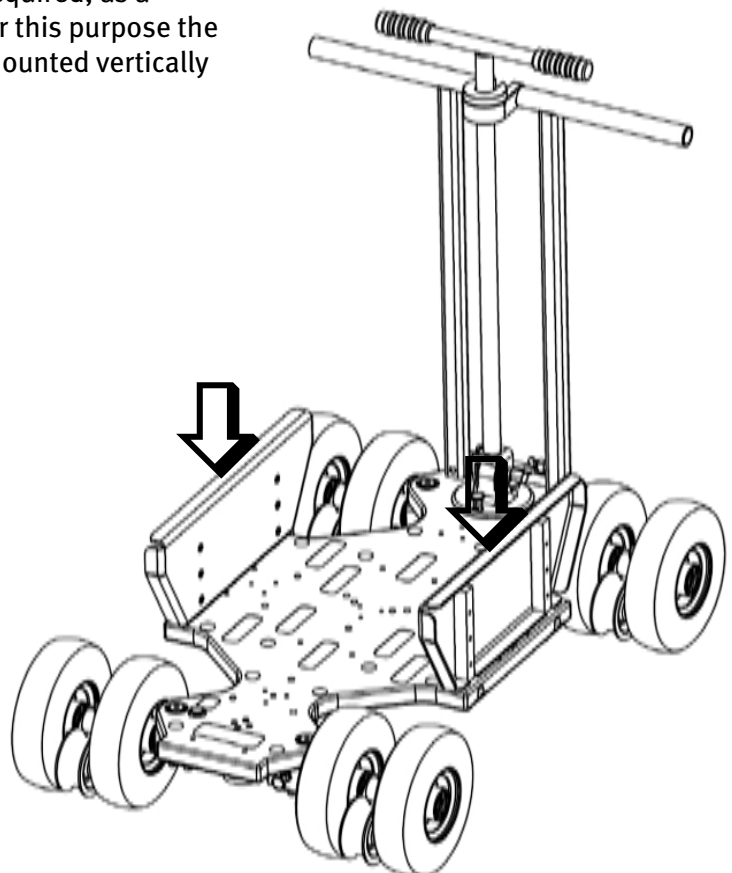


WARNING !

The dolly should be raised slightly in order to rotate the rail wheels. In this way the wheels can be swiveled more easily.



The TWISTER Dolly can also be used, when required, as a transport vehicle, e.g. for boxes or crates. For this purpose the optional mountable platforms may also be mounted vertically (see Chap. 4.3)



*Fig. 5.1
TWISTER Dolly with upside
assembled side platforms*

6. Maintenance

The TWISTER Dolly is a solid device that works reliably and functions without extensive maintenance work.

To be able to warrant high life expectation and constant quality, it is necessary to treat the components carefully and look after them.



NOTE !

Damage resulting from improper handling is not warranted.
Likewise, there is no warranty in case the seals are damaged.

After each use, especially in dirty, dusty, sandy, moist, or salty environments, the device must be serviced and cleaned carefully. Pay attention to the mobility of all connections.



WARNING !

Immediately interrupt all use if only one part of the device is damaged or missing.

Maintenance and repair work can only be implemented by qualified specialists. The PANTHER Company offers service seminars that are held upon request. Please call +49 (89) 613 900 30 (PANTHER - Service) for scheduling coordination.

Test all components for completeness and damage during each assembly, e.g. bent pipes, loose screws, etc. These components must be exchanged, if necessary.

7. Warranty

We warrant that the products are free of manufacturing defects in material. Both for mechanical and for electronic parts, the warranty period is 12 months. The warranty period begins with the date of delivery.

Any warranty shall, however, expire if our operating and maintenance instructions are not complied with, if changes are made to the products, or if parts of our equipment are replaced with parts that do not correspond to the original specifications; the same shall apply to improper handling of the equipment.

The purchaser undertakes to exempt us from any claims for compensation which might arise on the part of third parties vis-à-vis us, whether resulting from putting into service or from using the equipment. The purchaser must inform our customer service management in writing about any discernible defects without delay – at the latest, however, within one week after receipt of the delivered item. Defects which do not become discernible within this period, even after careful examinations, must be reported to us by the purchaser in writing immediately after discovery.

In the event that the purchaser should report that the products do not correspond to the warranty, we may require at our discretion that either

- a) the defective equipment or the defective part is to be sent to us for repair and subsequent return, or
- b) the purchaser keeps the defective equipment or the defective part available, and we shall commission an expert who will be sent to carry out the repair.

Transport cost and travelling expenses incurred for the purpose of remedying defects shall be borne by the purchaser.

Defects which occur to the equipment as a result of natural wear and tear shall not be covered by the warranty. When asserting claims under warranty, it is the duty of the purchaser to prove that the defects were not caused by circumstances which are among the risks within his sphere of responsibility (such as transport damage, improper operation, etc.).

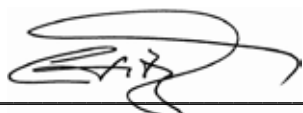
Any further claims in particular claims for damages for direct or indirect damage are excluded.

If after an appropriate time it is not possible to remedy the defect, the purchaser may at his discretion demand a reduction of the payment or cancellation of the contract.

Only the direct purchaser shall be entitled to make warranty claims against us; such claims are not assignable.

Oberhaching, March 2008

8. EU - Declaration of Conformity

The product has been developed, designed and manufactured in conformity with the following regulations:		
EC regulations:	Maschinenrichtlinie	98/37 Anh. I/IV
harmonized Regulations of technic:	Sicherheit von Maschinen	EN 292 /394
national regelations:	Veranstaltungs-und Produktions-stät- ten für szenische Darstellung	BGI 814
The technical documentation is existing completely. The Operating Instruction that belong to the machine is submitted.		
<u>Oberhaching, March 31, 2008</u>	 Erich Fitz, Mahaging Director	
We have fulfilled the essential safety and health requirements. In case of technical change of the machine made by a third party this declaration looses its validity.		