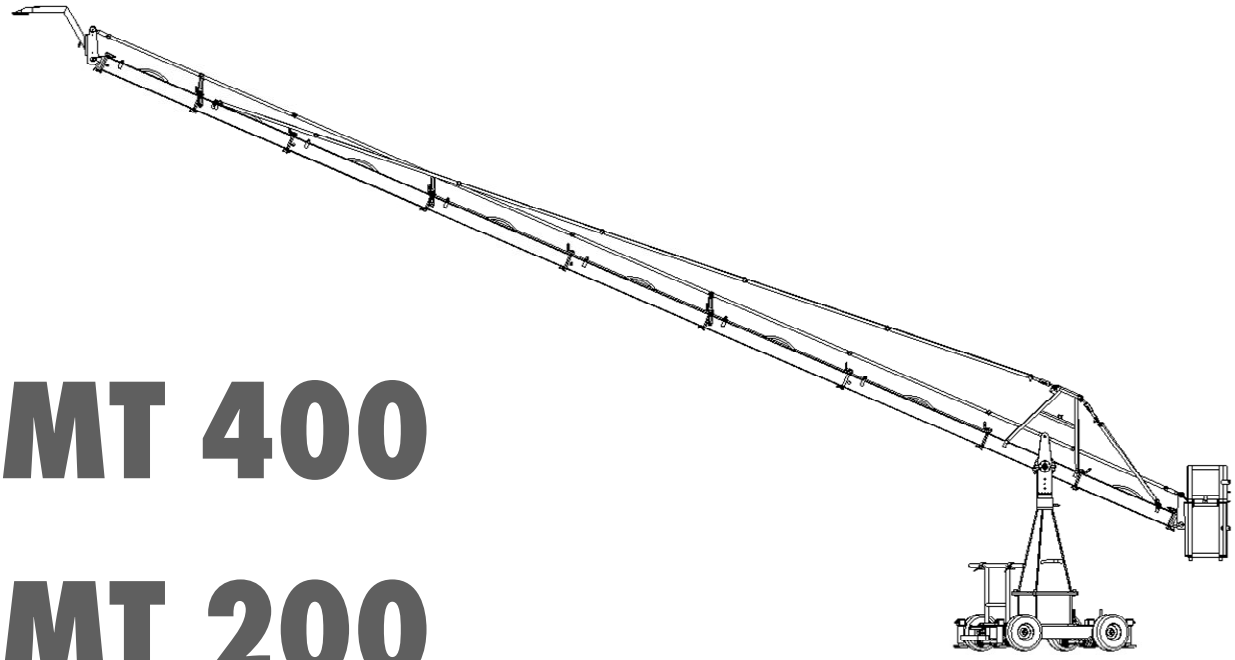
MovieTech

Bedienungsanleitung

Instruction Manual



MT 400

MT 200

Movie Tech / ABC-Products
Martin-Kollar-Str. 9
81829 Munich
Germany
Tel. +49 (0)89 43 68 91 3
Fax. +49 (0)89 43 68 91 55
info@movietech.de

Movie Tech / ABC-Products
Viale Edison 318
20099 Milano
Italy
Tel. +39 (0)2 22470043
Fax. +39 (0)2 24410163
k.shore@movietech.de

WWW.MOVIETECH.DE

Version: MT 400_D_ v15_2007_EN – 20.08.2007

Notes:

1 Table of contents

2 Safety instructions and general notes

All safety instructions are summarised in the following.
The safety instructions are repeated in the context of the respective chapters.

1) The MT 400 camera crane should only be used for professional recording of presentations with film and television cameras and can only support people when the platform is used. The crane system may not be used for any purpose other than that specified.

2) Only personnel trained by Movie Tech AG or by competent technicians are allowed to set up and operate the MT 400 crane system. Training is offered by Movie Tech AG by arrangement.

3) Two people are required to set up the crane. Personnel must wear safety shoes, since the counterweights can present a particular danger if they fall.

4) You must read and understand the instruction manual before using the crane. The instruction manual must always be available to the operator at the point of use.

5) The crane may only be operated when balanced horizontally. Levelling legs or a level track are used for alignment. A bubble level is used to check the balance. A commercially available bubble level can also be used.

6) The crane can only be operated on levelling legs or with guide wheels. The mounted pneumatic tyres are used to transport the crane to the point of use only. The pneumatic tyres can be used to move the erected crane without payload and without the corresponding counterweight.

7) Make sure that the ground can bear the weight of the crane before setting it up. The surface load is a result of the crane's own weight in the required version plus counterweight and payload divided by the footprint or contact area. On this basis, the total surface load is approx. 1.5 m^2 (load-bearing capacity of ceilings in buildings). For the load under an individual levelling leg, particularly important in an open area, a third of the total weight of the version used is to be taken into account. It may be necessary to increase the area under the levelling legs using wooden plates or similar (grass, meadow, beach).

8) Do not set up or operate the crane while under the influence of drugs, alcohol or other medicines and narcotics.

9) Never operate the crane in the immediate vicinity of high-voltage lines – danger to life.

10) The crane must be shut down in sufficient time before the maximum permitted operating wind of 25 km/h is reached.

11) Particular care is required when operating the crane in unfavourable weather conditions. The crane must be shut down in sufficient time when a thunderstorm is threatening. When in doubt, the crane should be secured and the area evacuated. Pathways and operating elements should be kept free of ice if there is a risk of ice forming.

12) All elements of the crane must be within the field of vision of the operating personnel when in use. Visual obstructions can include window blinds, fog or darkness. The crane can only be moved by line of sight.

13) Any movements to be carried out with the crane must be adequately rehearsed. Pay particular attention to keeping the area of movement in front of and behind the crane free of obstacles. Quick movements and/or panning must be rehearsed starting at low speeds. Make sure that the stability of the crane is not negatively affected by the dynamics of the quicker movement under increasing speed. Pay attention to critical situations that may arise when lifting a levelling leg or guide wheel.

14) These safety measures are especially important when driving in a circle! The maximum speed in the circle (Master Track, diameter approx. 6 m) is 6.5 km/h, which corresponds to 35°/sec. or three crossties per second. Caution – risk of tipping!

15) All materials and equipment used must be securely attached to the platform or remote crossbeam to prevent any drops.

16) Platform crew must immediately buckle up upon mounting the platform and should only dismount after consulting with operating personnel. **Caution – risk of tipping!**

17) Prevent the unauthorised use of the erected crane system.

18) The maximum payload of the respective version and the corresponding maximum counterweight should not be exceeded.

19) Do not operate the crane on vehicles of any type – uncontrollable movements can be dangerous. (communication between driver <=> operating personnel, uneven surface, etc.)

20) Standing under overhead loads until release by operating personnel is prohibited. Keep the danger zone cordoned off until release and mark as a danger zone if necessary. People within the pivoting range of the crane must be specially instructed and informed about the dangers. The operator must anticipate that such individuals may suddenly find themselves within pivoting range of the crane and therefore, must maintain a safe distance to the crane to ensure sufficient reaction time.

21) Platform crew must be instructed that they are not permitted to grip the surrounding structure or similar. This can negatively affect the balance of the crane – risk of tipping.

22) Should you need to route cable along the crane arm to the remote head or camera, the cable should not negatively impact the movements of the crane in any way. It should also be noted that the weight of the cable counts towards the overall payload.

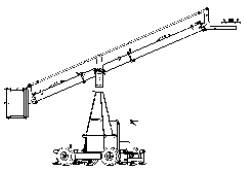
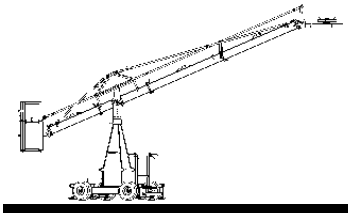
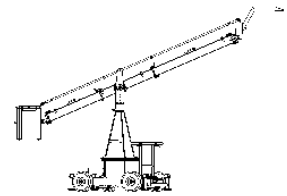
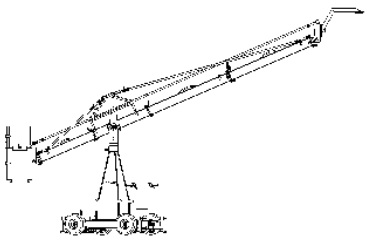
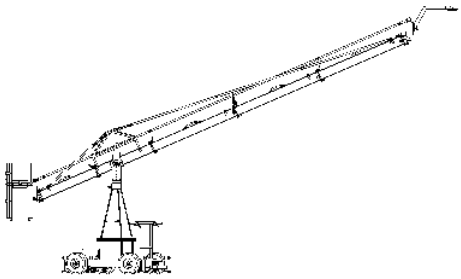
23) The crane system and its individual components should be clean and dry when stored. Any accumulated dirt can negatively impact proper function when the crane is operated next.

24) When transporting the crane system, make sure that the components do not rub together and cause any material wear. Severe damage to the surface coating can lead to increased corrosion. Also make sure when transporting the individual components that they do not hit against each other to avoid bending or denting them. Any bends or dents can weaken the structure and make the system unusable.

25) Crane components that have become unusable must be professionally disposed of. Movie Tech AG can properly dispose of such components for you by sending them back to us.

3 Overview of the various set-up options for the MT 200

MT 200 versions

		Strut turret required/ Auxiliary basket permitted?
	200-P1 platform	No
	200-P2 platform	Yes
	200-R1 remote	No
	200-R2 remote	Yes
	200-R3 remote	Yes

4 Overview of the various set-up options for the MT 400

MT 400 versions

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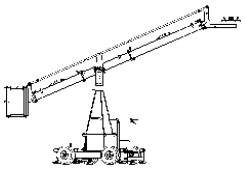
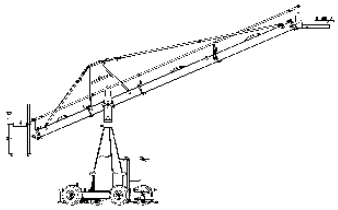
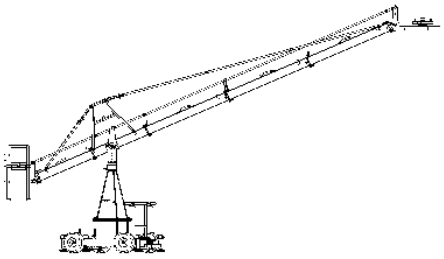
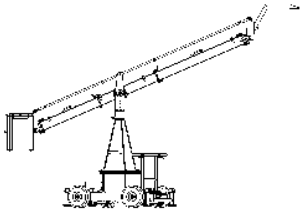
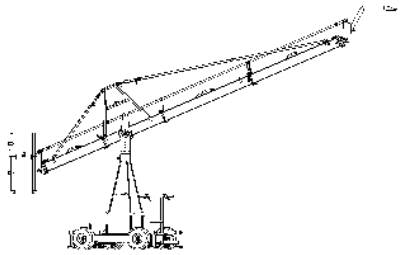
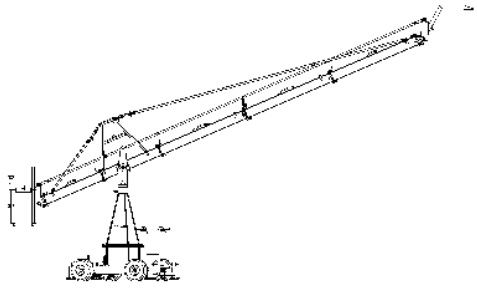
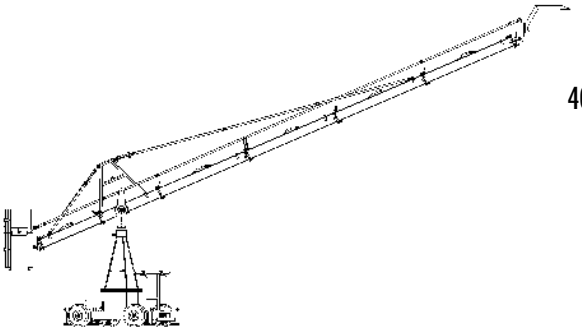
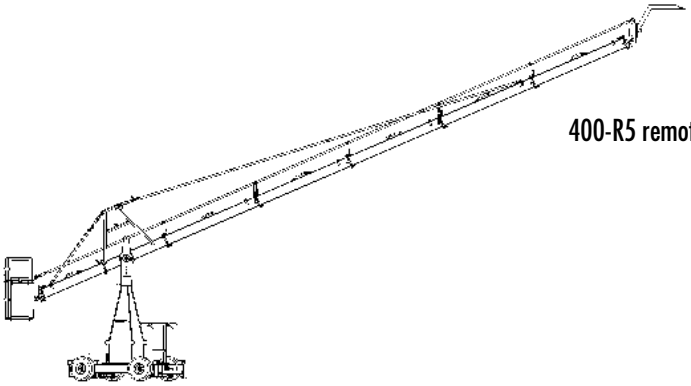
	400-P1 platform	No
	400-P2 platform	Yes
	400-P3 platform	Yes
	400-R1 remote	No
	400-R2 remote	Yes
	400-R3 remote	Yes



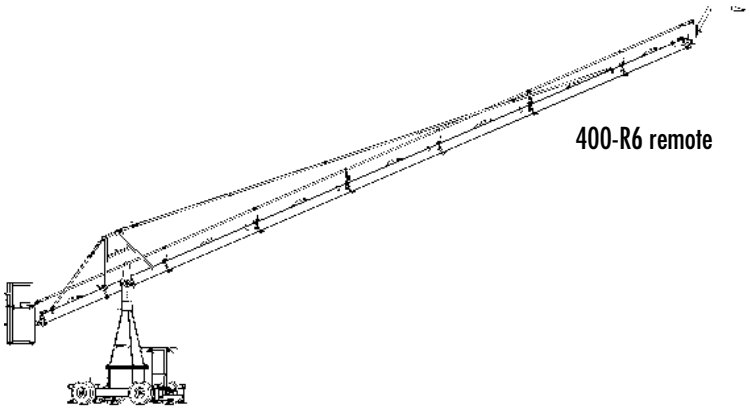
400-R4 remote

Yes



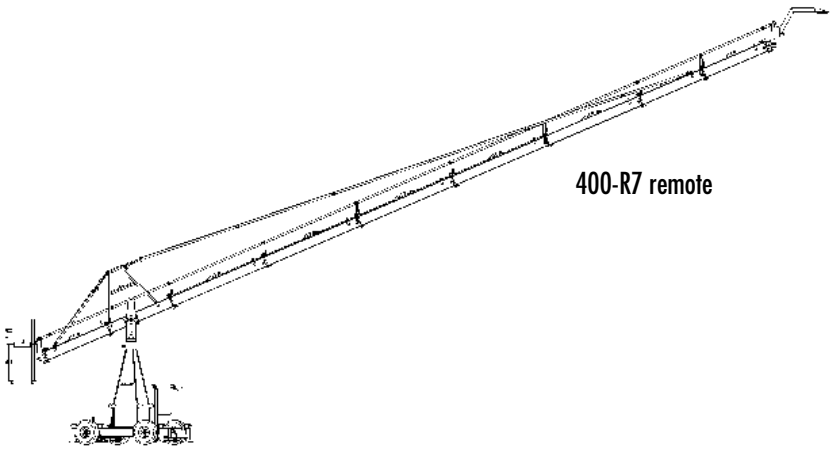
400-R5 remote

Yes



400-R6 remote

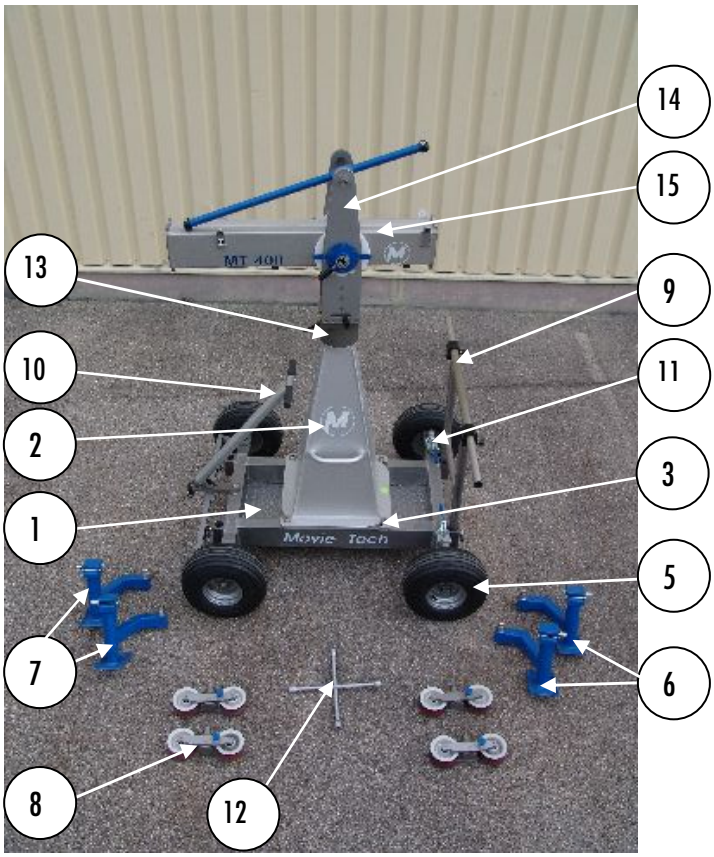
Yes



400-R7 remote

Yes

5 Crane system components



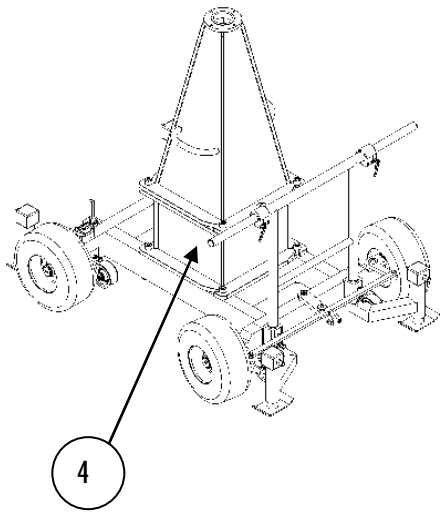


Fig. 1: Basis of the MT 400

No.	Part	Number	Article no.
1	Base frame	1x	4402_402-100
2	Column extension	1x	4402_402-200
3	Fixing screw for column extension	4x or 8x	4402_402-3
4	Additional column extension (optional)	1x	4402_402-400
5	Pneumatic tyres	4x	Rad-15x6_00-6
6	Levelling leg, left	2x	4403_403-0a
7	Levelling leg, right	2x	4403_403-0
8	Track wheelset	4x	4404_404-0
9	Slide rod	1x	4402_402-300
10	Steering	1x	-
11	Brake	2x	-
12	Wheel wrench	1x	-
13	Turret	1x	4400_400-500
14	Rotary joint	1x	7500_500-100 ???
15	Centre section	1x	4400_400-120

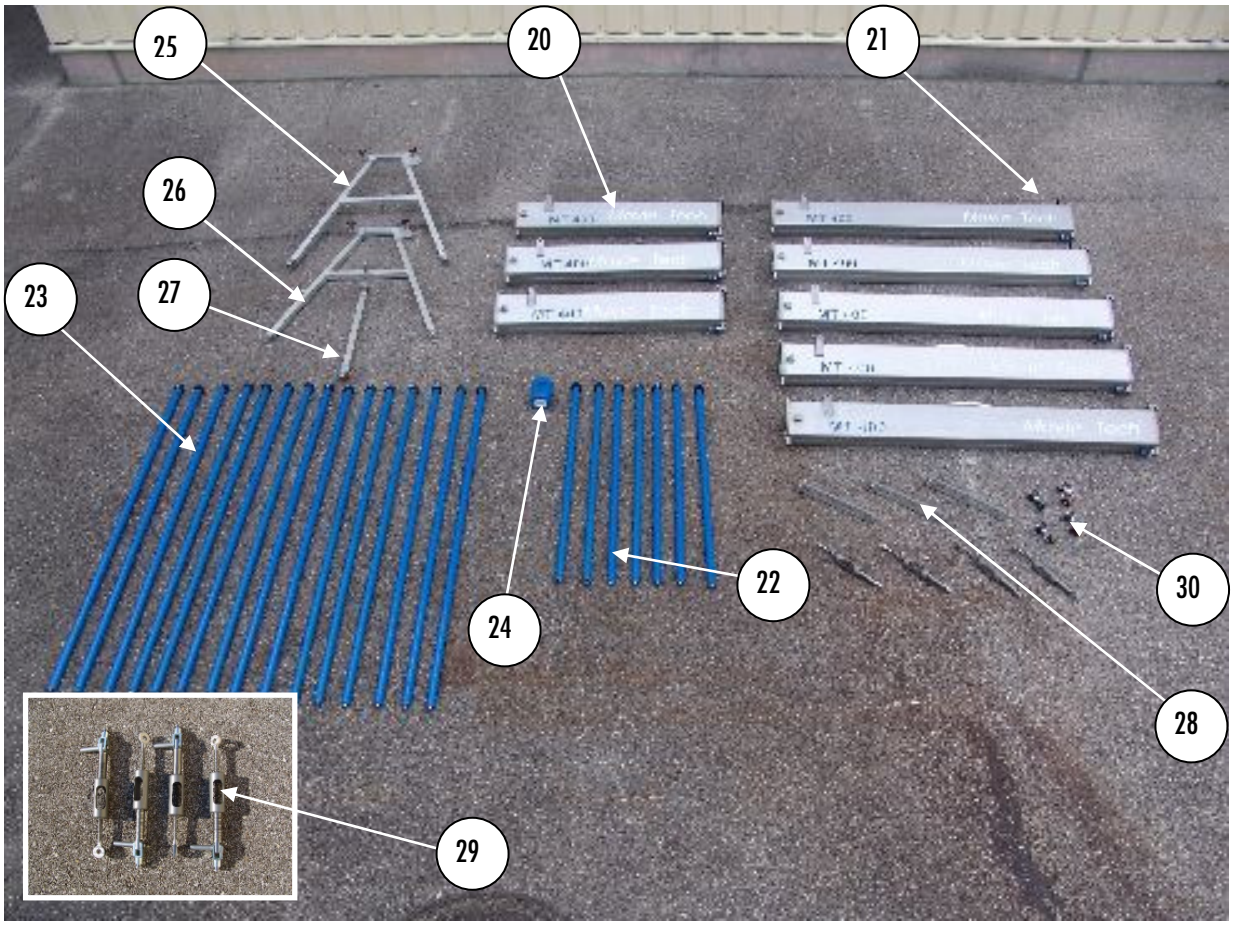


Fig. 2: Elements of the crane with accessories

No.	Part	Number	Article no.
20	Crane element 1 m	3x	4400_400-150
21	Crane element 1.5 m	5x	4400_400-150
22	Strut bar and parallelogram bar 1 m	7x	4400_400-50
23	Strut bar and parallelogram bar 1.5 m	15x	4400_400-300
24	Balance weight	1x	7500_500-500
25	Strut turret, right	1x	4400_400-250
26	Strut turret, left	1x	4400_400-280
27	Derrick girt	1x	4400_400-290
28	Support for parallelogram bar	3x	4400_400-450
29	Turnbuckle	4x	4400_400-900
30	Locking device	4x	4400_400-80

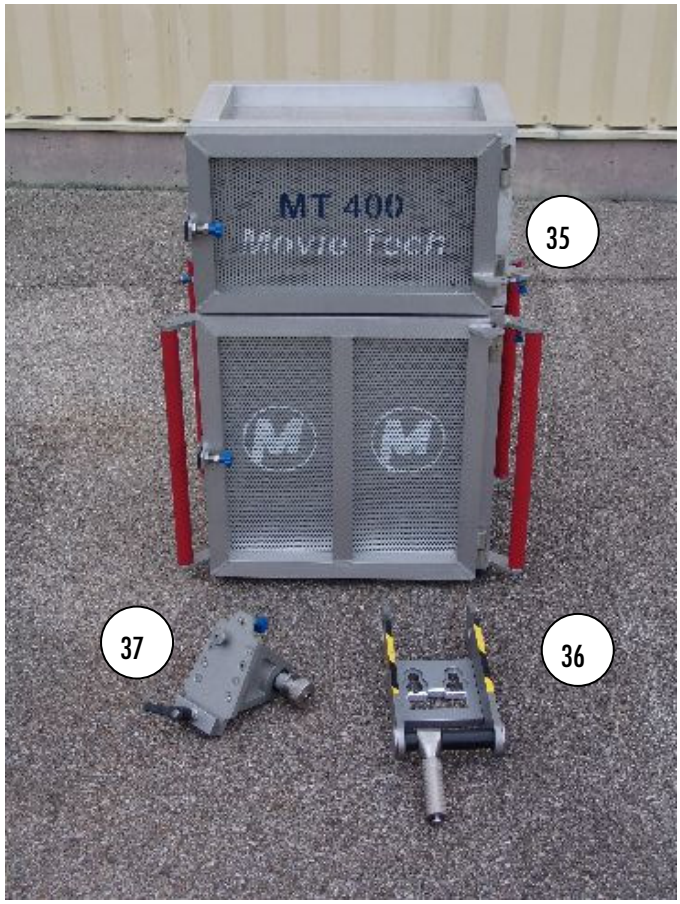


Fig. 3: Complete weight basket with accessories

No.	Part	Number	Article no.
35	Weight basket, complete	1x	4400_400-600
36	Basket hitch	1x	4400_400-760
37	End rocker	2x	4400_400-350

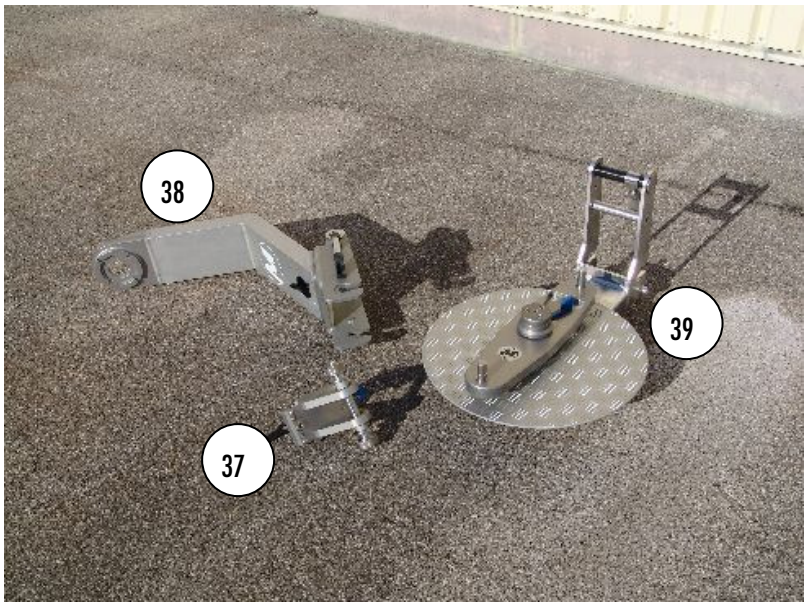


Fig. 4: Platform and remote head crossbeam

No.	Part	Number	Article no.
37	End rocker	2x	4400_400-350
38	Remote head crossbeam	1x	4401_401-0
39	Platform	1x	4406_406_0 ???

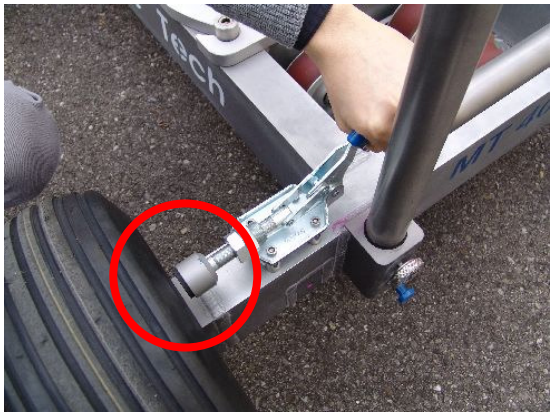
6 Base set-up

➲ Do not operate the crane on vehicles of any type – uncontrolled movements can be dangerous.
➲ Never operate the crane in the immediate vicinity of high-voltage lines – danger to life.

The crane base is equipped with steerable pneumatic tyres for easy manoeuvrability. The tyres are **not** suitable for use when the crane is set-up.

Fig. 5: Crane base with column, rotary joint and centre section

Apply the brakes before you start to set up the crane.



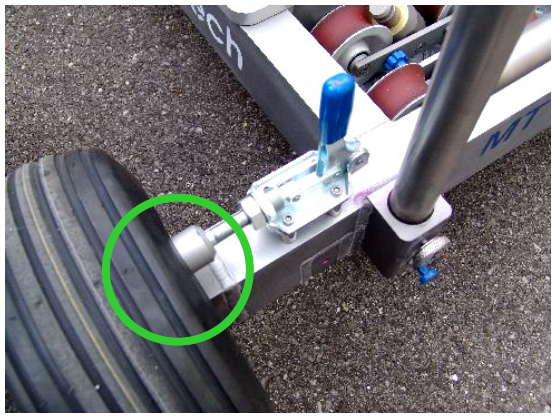


Fig. 6: Applying the brakes

Two variants are available for operating the crane: one for use with adjustable levelling legs in a fixed position, one for use on a track with guide wheels.

Fig. 7: Operation with levelling legs or tracks

The crane base can be balanced horizontally in a position to ensure the safe operation of the crane. To do so, the levelling legs are mounted to the base facing outwards.

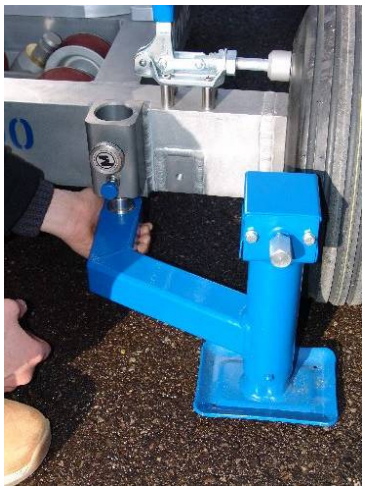


Fig. 9: Mounting the levelling legs

Fig. 8: Incorrect position of the locking pin

Fig. 10: Correct position of the locking pin

Use the wrench provided to adjust the length of the levelling legs. There is a level on the crane column for balancing the crane. Note that all four levelling legs have to carry the same load.

Note that the crane should only be operated when balanced horizontally. The levelling legs are used to balance the crane.

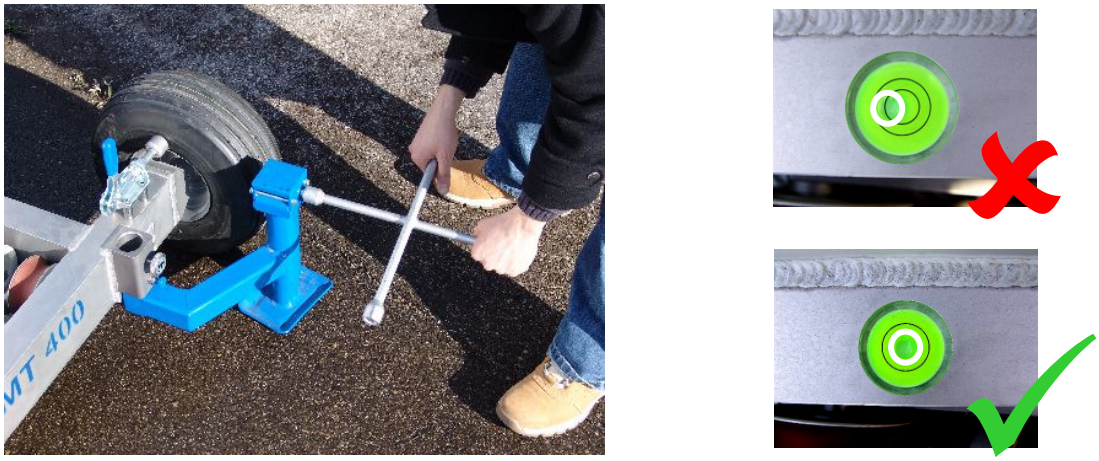


Fig. 11: Balancing the base

✪ After the levelling legs have been mounted and the base is balanced horizontally, both wheel brakes can be released.

Apparent is a load on the levelling leg similar to the torque required to adjust the levelling legs.

Alternatively, guide wheels can be mounted to the base that make it possible to drive the crane on a laid-out track.

Fig. 12: Mounting the guide wheels

The guide wheels are to be mounted on the base, so that the area of movement of the guide wheels is free of obstacles. Pay particular attention to the track substructure to ensure that it can withstand the load.

When moving on the track, also make sure that the track substructure remains firmly on the ground to ensure the stability of the crane.

Fig. 13: Base on a track system on level surface

A slide rod can be mounted to the front or rear of the base to make moving the crane base on the track or ground easier. It is equipped with an adjustable pipe and makes walking next to the track possible.
When pivoting, the slide rod must be removed to keep the pivoting range free of obstacles.

➲Note that the crane can only be operated on levelling legs or with guide wheels. The mounted pneumatic tyres are used to transport the crane to the point of use only.

➲ Any movements to be carried out with the crane must be adequately rehearsed. Pay particular attention that the area of movement both front and rear is free of obstacles. Quick movements and/or panning must be rehearsed starting at low speeds. Make sure that the stability of the crane is not negatively affected by the dynamics of the quicker movement under increasing speed. Pay attention to critical situations that may arise when lifting a levelling leg or guide wheel. Movement speeds must be reduced.

➲ These safety measures are especially important when driving in a circle! The maximum speed in the circle (Master Track, diameter approx. 6 m) is 6.5 km/h, which corresponds to 35°/sec. or three crossties per second. Caution – risk of tipping!

7 Setting up the MT 400 / MT 200

Information about setting up the MT 200 is also available here.

You can begin mounting the crane arm only after balancing the base in the horizontal position.
To assemble the crane, the base must already be locked into position by applying the brakes to the rotary joint and rotary bazooka. See the following figure. **You must ensure that the brake on the rotary joint (left picture) is open before loading the crane.**

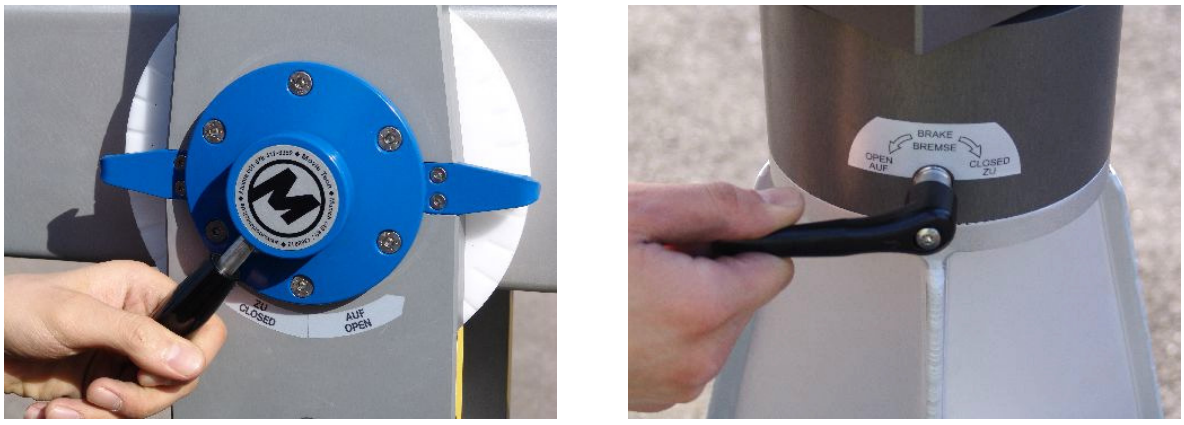
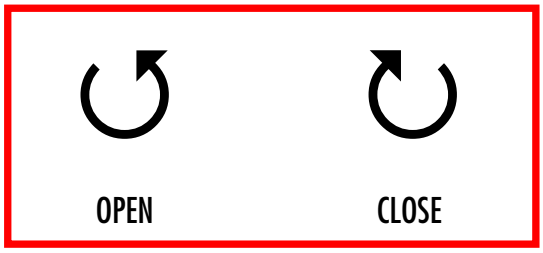


Fig. 14: Applying the brakes to the rotary joint and rotary bazooka



The stability of the base must be ensured before starting any set-up work.

Fig. 15: Checking the crane base for stability

7.1 This section of the set-up instructions is based on the 400-P1 (platform) and 400-R1 (remote) versions.

For versions after 400 P_2 and 400 R_2, please go to page 27.

The 400 P_1 and 400 R_1 versions do not require any strut turrets and bars.

First, mount the crane element to the weight basket. Make sure that the locking pin is properly engaged and the clamping lever is firmly tightened.

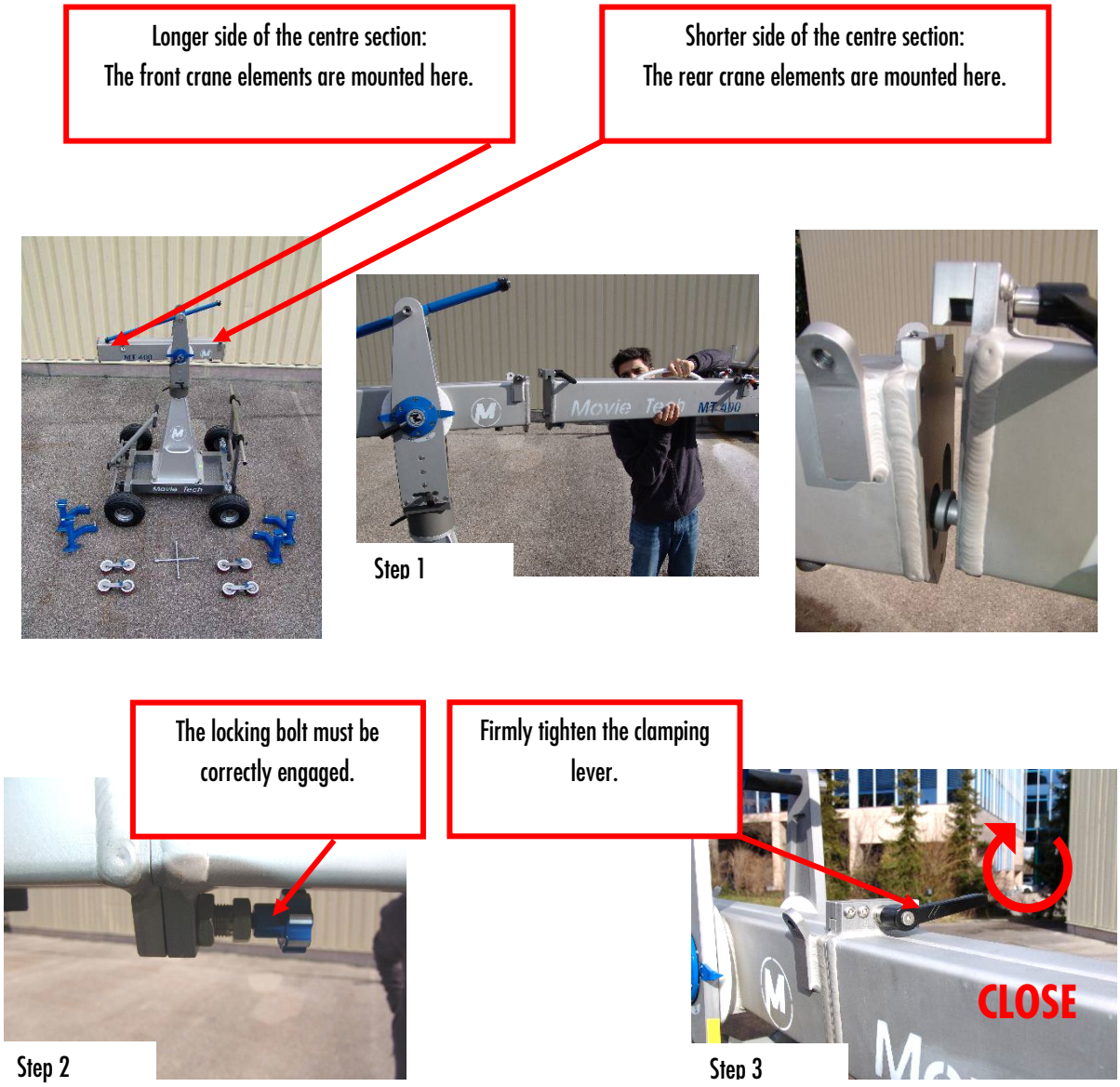


Fig. 16: Mounting the rear crane element to the weight basket

Mounting the front crane element works the same way.

Fig. 17: Mounting the front crane elements

In the next step, each end rocker is mounted and firmly tightened with the lever. Also make sure that the respective locking bolts are correctly engaged.

Step 1

Step 2

Fig. 18: Mounting the end rockers, weight side and front side

The crane must be properly supported at the front and rear.
Setting up the crane by means of counterweights and counterbalancing is not permitted.

Make sure that the brake on the rotary joint is opened by now at the latest.

Fig. 19: Supporting the front crane arm

Next, mount the parallelogram bar.

Fig. 20: Mounting the parallelogram bars

Make absolutely sure to fully extend the lock bar of the connections. The green mark must be clearly visible and the red mark covered.

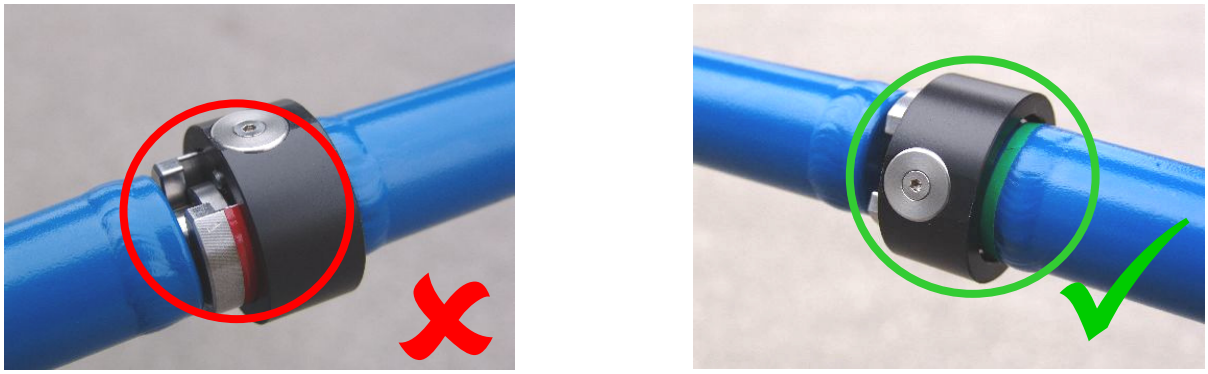


Fig. 21: Incorrect and correct position of the locking lever

You can now start mounting the weight basket since the parallelogram bars for each required length have been installed. To prevent hand injuries, pay particular attention to the correct grip when mounting.

Fig. 22: Correct hand grip when mounting the weight basket hitch

Now use both knurled-head knobs and the locking lever to secure the weight basket hitch. Also pay attention to the correct position of the locking lever (step 2).

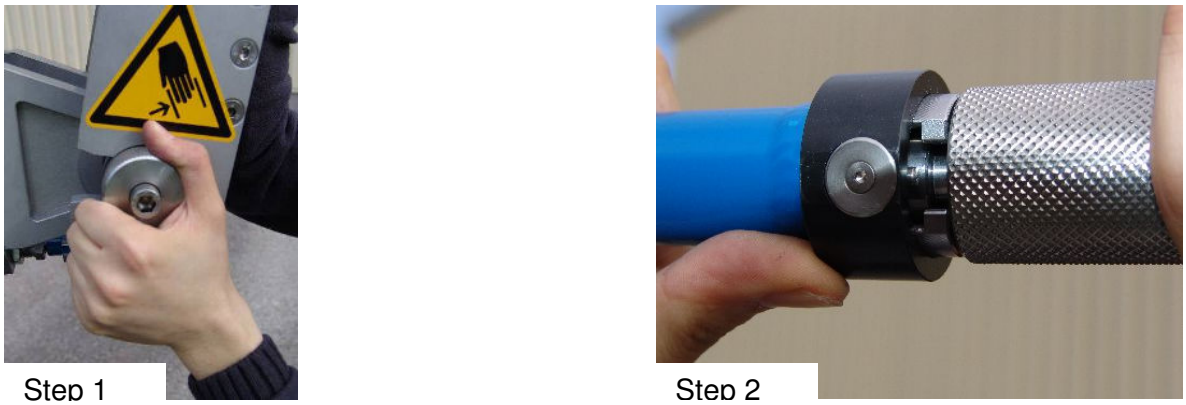


Fig. 23: Securing the basket hitch

Support the rear section of the crane before hanging the basket.
The front and rear section of the crane are safeguarded against overloading.

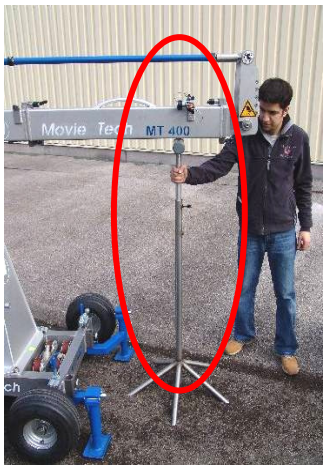


Fig. 24: Supporting the rear crane arm

You can now hang the weight basket.

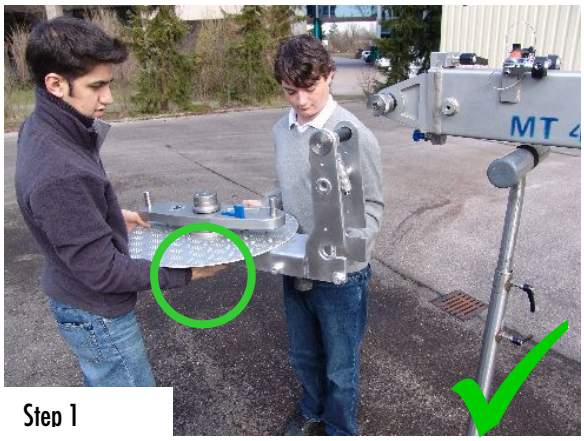
Fig. 25: Hanging the weight basket

Depending on the length of the crane, you can then mount the platform or remote head crossbeam.
Find the specifications for doing so on page 37.

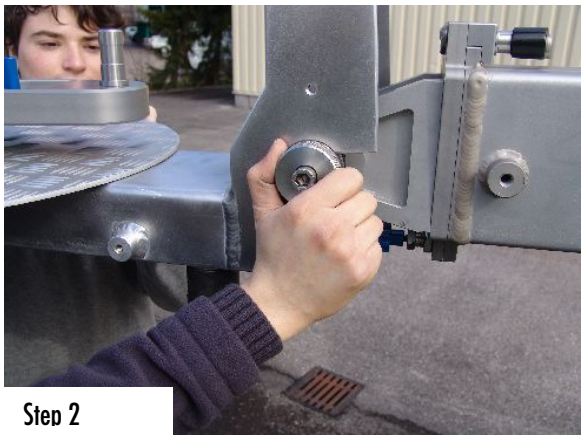
7.1.1 Variant 1: Platform operation

Now use both knurled-head knobs and the locking lever to secure the platform. Also pay attention to the correct position of the locking lever (step 3).

Risk of injury and crushing when mounting the platform or remote crossbeam.



Step 1



Step 2

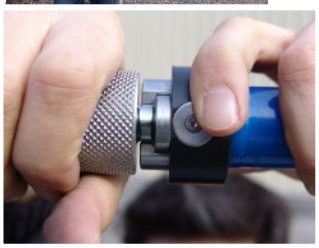


Fig. 26: Mounting the platform

➲Platform crew must be instructed that they are not permitted to firmly grip the surrounding structure or similar. This can negatively affect the balance of the crane – risk of tipping.

➲ Platform crew must immediately buckle up upon mounting the platform and should only dismount after consulting with operating personnel.

You can now mount a seat and seat arm on the platform.
Make sure that the respective pins are fully inserted in the respective holes.

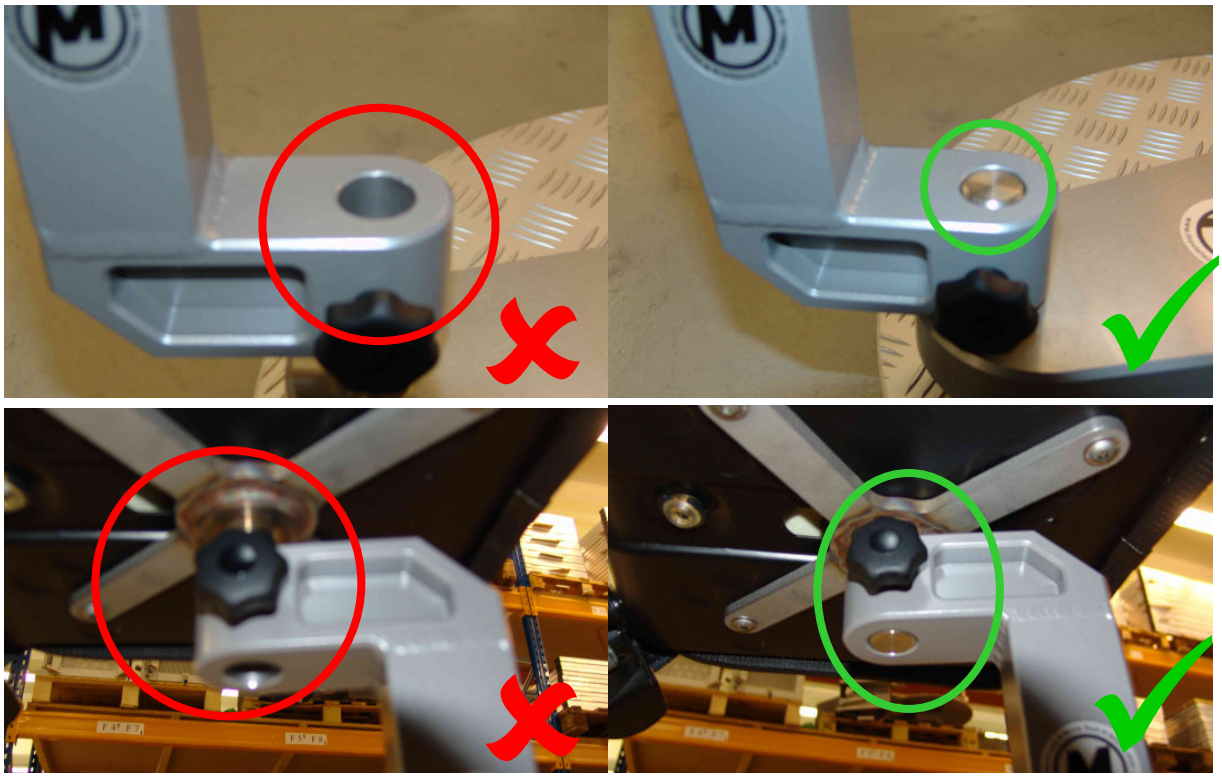


Fig. 27: Incorrect and correct mounting of the seat arm and seat

Make sure that anyone on the platform uses the safety belt. This can also prevent any unintentional dismount, which can lead to serious accidents.

Fig. 28: Person with correctly secured safety belt

Movie Tech AG offers various options for mounting a camera. In general, make sure that the elements used are secured. In addition to the clamping system, the column extensions distributed by Movie Tech AG provide the ability to firmly bolt with the Euro adapter.

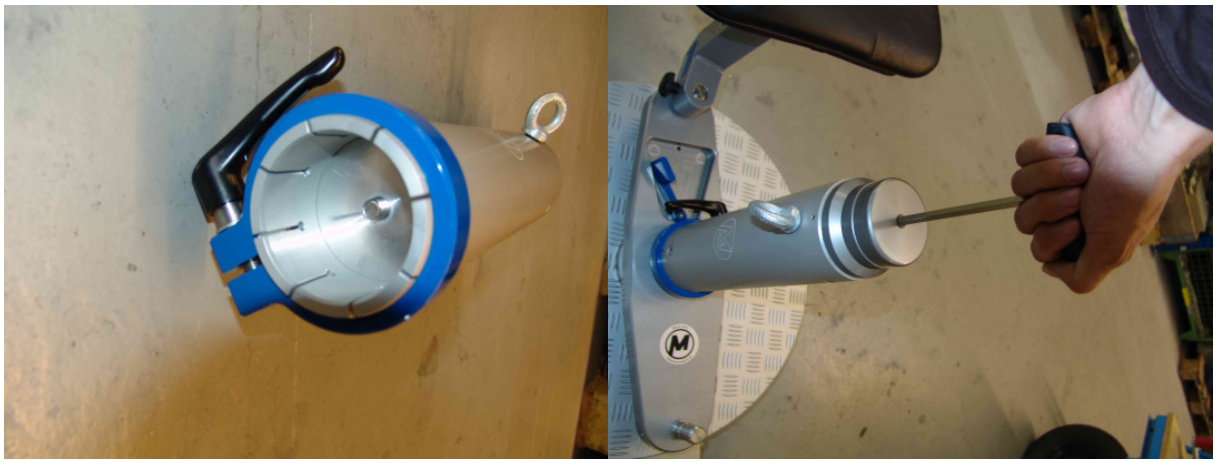


Fig. 29: Mounting screw and 8 mm Allen key for mounting

In addition, the existing eyebolts can also be used to secure loose parts and the camera itself with the help of safety ropes.

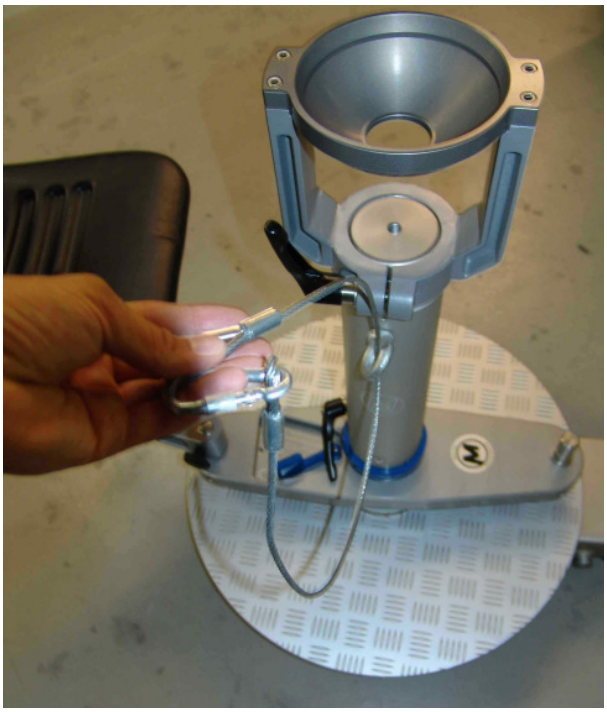


Fig. 30 Safety rope on column extension for securing loose objects

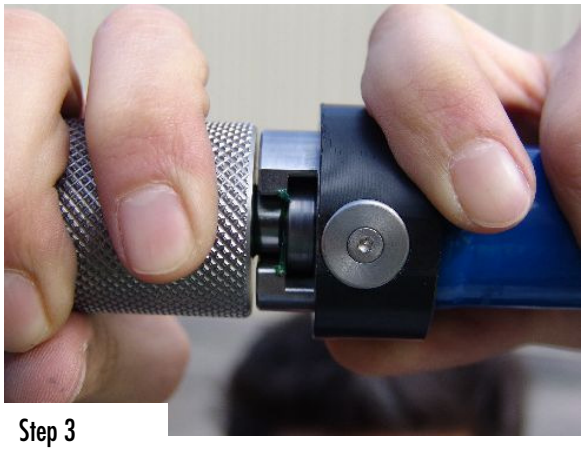
Variant 2: Remote operation

The remote head crossbeam must be mounted.

Use both knurled-head knobs (step 2) and the locking lever to secure the remote head crossbeam. Also pay attention to the correct position of the locking lever (step 3).

Step 1

Step 2



Step 3

Fig. 31: Mounting the remote head crossbeam

All materials and equipment used must be securely attached to the platform or remote crossbeam to prevent any drops.

Standing under overhead loads until release by operating personnel is prohibited. Keep the danger zone cordoned off until release and mark as a danger zone if necessary.

The crane is now set up.

However, the brake for the rotary joint must be released before starting to load the weight basket.

The weight basket doors have a lock-in position to prevent unintentional closing. The locking bolt can be seen in the figure below.

Fig. 32: Releasing the brake of the rotary joint and loading the weight basket

Make sure that the maximum payload of the respective version and the corresponding maximum counterweight are not exceeded.

The crane is ready for use after it has been set up and the weight basket loaded. 400-P1 version without crew can be seen in Fig. 33 below.

Fig. 33: 400-P1 version (platform operation)

Prevent the unauthorised use of the erected crane system.

7.2 This section of the set-up instructions is based on all versions 400-P2 and 400-R2 or higher.

The base is set up as described in section 6 on page 13.

Strut turrets (25, 26) must be installed for 400-P2 and 400-R2 versions or higher.

First, use the locking devices on the turrets to mount the turnbuckles.

Use the upper holes for mounting the turnbuckles for 400-P3 and 400-R3 versions or higher. Otherwise, use the lower holes.

Fig. 34: Mounting the turnbuckles

Bolt the turrets to the centre section of the crane. Make sure to bolt the turrets to the mounts from the outside in order to maintain the distance between the individual components required for bracing. View the procedure in the following illustration.

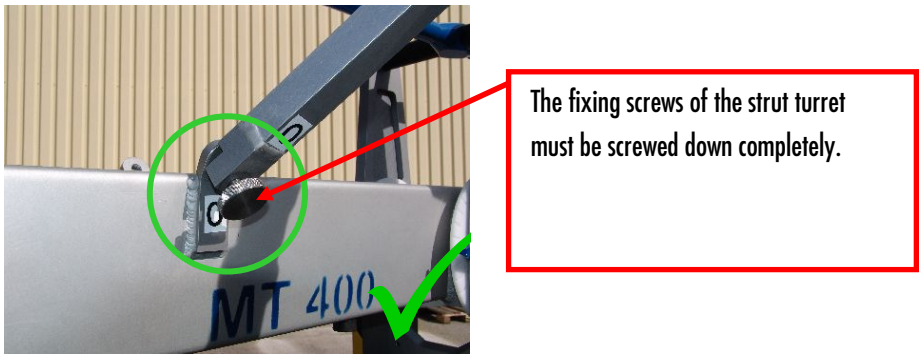


Fig. 35: Correct position of the turrets

Fig. 36: Mounting the strut turret

You can then mount the crane elements, first on the back for the weight basket. Mount the locking device for the strut bars to this part.

Refer to page 18 for the correct mounting of the crane elements.

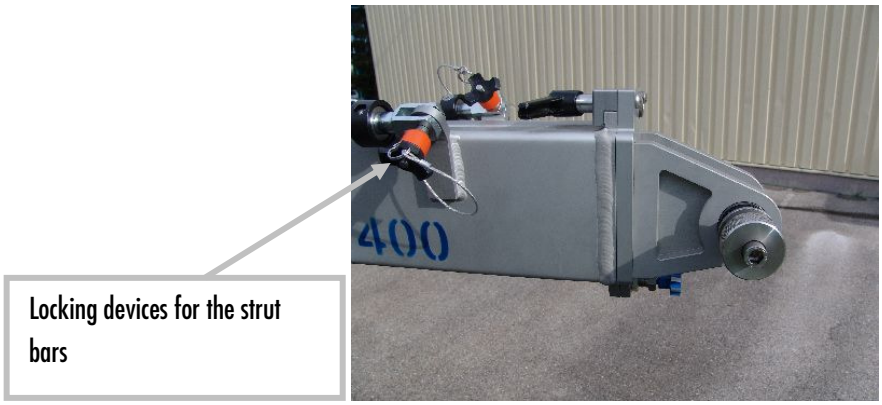


Fig. 37: Position of the locking device

You can now mount the bracing rods. The individual steps are described in Fig. 35. You can use the turnbuckles to correctly adjust the length of the strut bars. Make absolutely sure to fully extend the lock levers of the connections.

The position of the bracing rods is available in the version descriptions on page 37.

Fig. 38: Mounting the strut bar and adjusting the length

It makes sense to start from the front and back.

After mounting, use the Allen keys to lightly tighten the bracing on the rear and front as described in Fig. 34, step 2.

Tighten the Allen keys by hand only – do not use tools of any kind!
After bracing, connect the parallelogram bar to the front of the crane with the crane elements.

Fig. 39: Mounting the parallelogram bars

To mount the platform or remote head crossbeam, proceed as described on page 22. For large loads, the MT 400 has an auxiliary weight basket that can be place on top of the normal weight basket.

Fig. 40: Mounting the strut bar and adjusting the length

Fig. 41: 400-R7 version with auxiliary weight basket

When using a 1.5 m crane element on the rear of the crane, it can be helpful to mount an additional column extension under the normal column. This is required to prevent the weight basket with the longer element from hitting the ground early and preventing the full range of movement. This configuration is illustrated in the figure below.

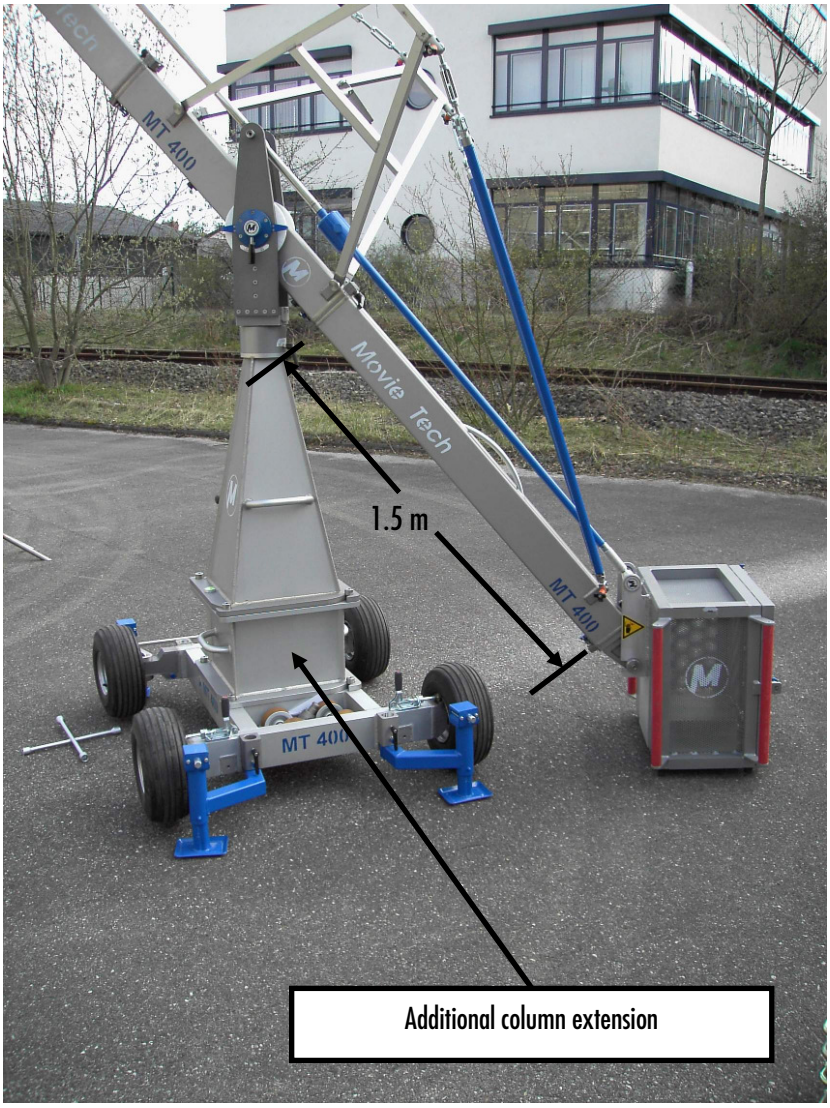


Fig. 42: 1.5 m crane element to weight basket with column extension

When mounting the column extension, make sure that the screws fit securely in the recesses provided. Use an Allen key to tighten the screws (max. 80 Nm).

8 Checklist for start of operation

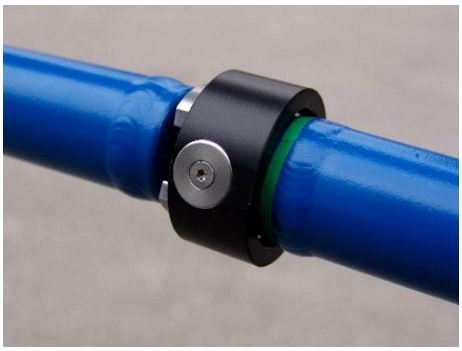
When setting up, make sure that no damaged or defective parts are used. Pay particular attention to the welded components. The welded seams should be free of defects and the crane elements should show no dents or cracks, which can negatively affect the stability of the system.
Bracing rods whose pipe cross section is not smooth should be checked by the manufacture before continued use.

Pay particular attention to the following points before putting the crane into operation.

- Do all elements fit easily together, but nevertheless exhibit no unusual play?

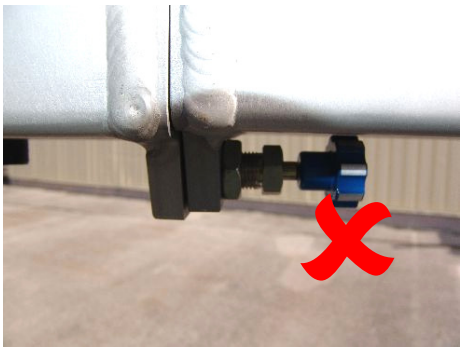
- Are the locking bolts on the levelling legs correctly engaged?

- Are the strut bar locking levers completely extended?



Is the crane base still level after assembly?

- Are the locking bolts and clamping levers of the individual crane elements correctly engaged or tightened?



- Is the weight basket mounted correctly and are the doors closed?

- Are the strut bars in the correct position? The positions are available in the tables starting on page 37.

- For the versions without strut bar, is only the bottom weight basket installed?

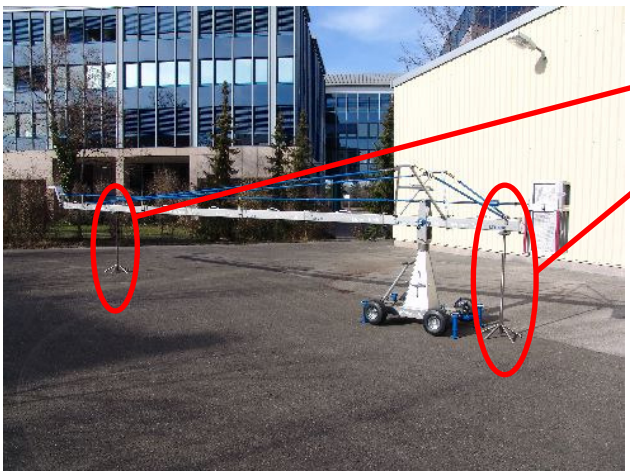
- Are the fixing screws of the strut turret screwed down completely?

9 Disassembly instructions

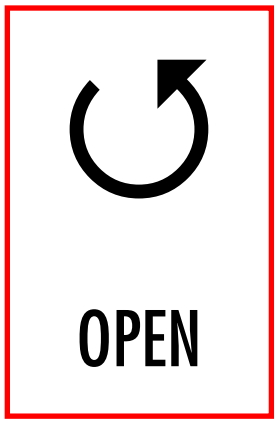
The crane is disassembled in reverse order. Make sure that the counterweights are first removed from the basket.

Disassembly procedure:

- The crane must be properly supported (e.g. with tripods) at the front and rear.



- The brake for the rotary joint must be released.



To bear in mind when disassembling the crane:

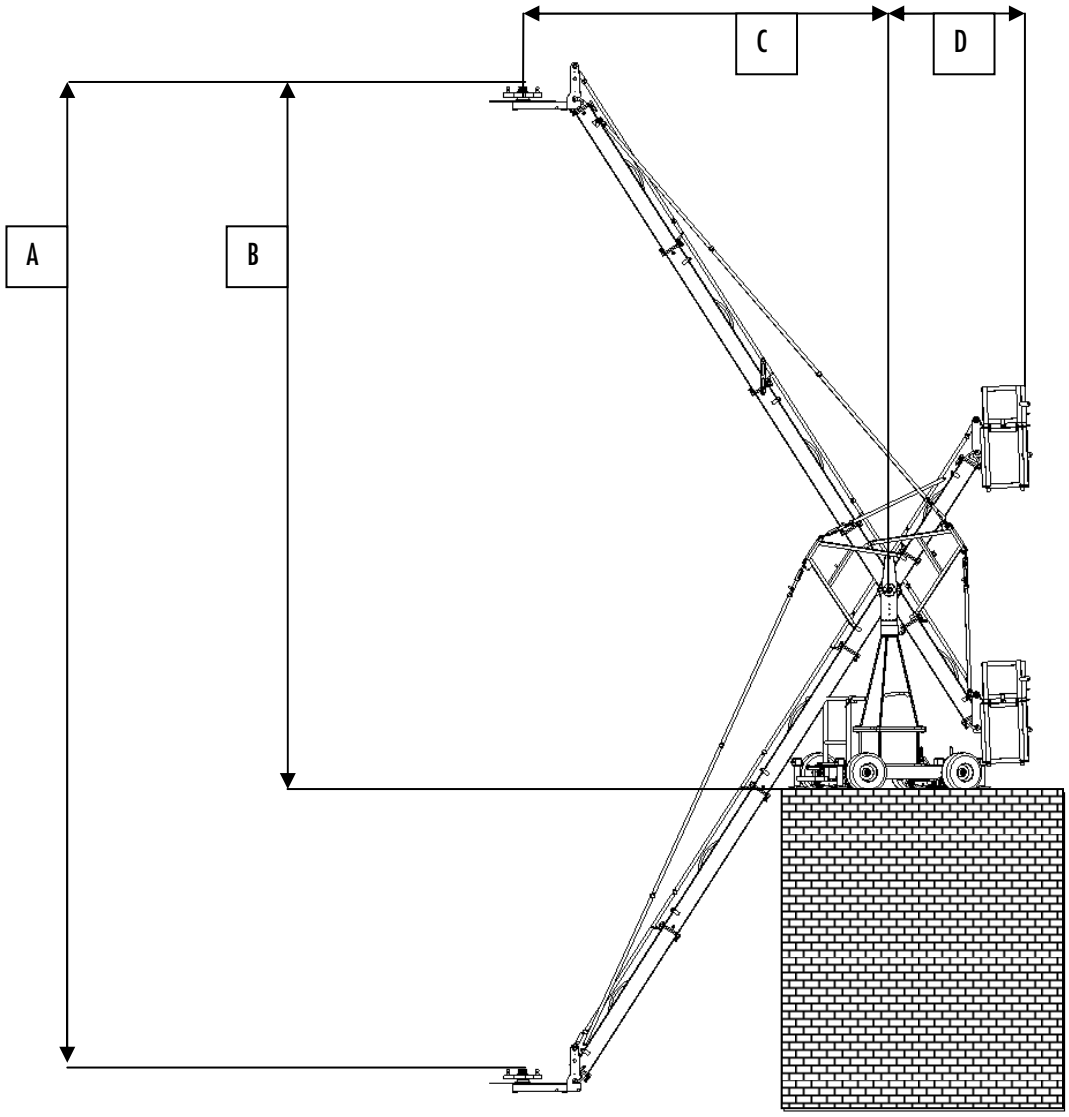
- It is important to note that the crane must first be supported on the weight basket and the front section before the strut bars can be disassembled.
- The crane must be supported evenly at the front and rear.
- Standing under overhead loads during disassembly is prohibited.

10 Terms in the tables in Ch.11 to 14

The following terms are used in the tables for crane dimensions:

- Total travel "A"
- Maximum height "B"
- Boom length, front (in horizontal position of the crane arm) "C"
- Boom length, rear (in horizontal position of the crane arm) "D"

The terms used have been inserted in the following illustration:

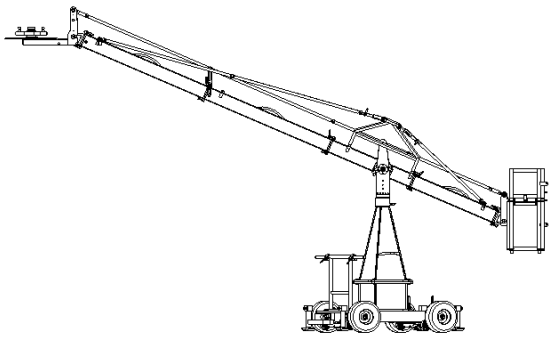


11 MT 200 platform version

11.1 200-P1 version

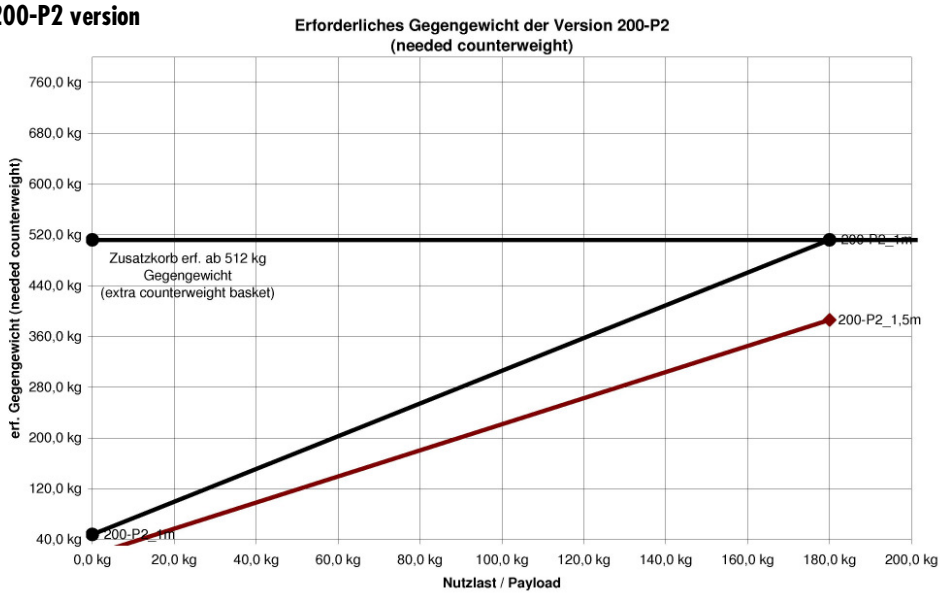
This version is identical to the 400-P1 version. See page 40.

11.2 200-P2 version



Rear boom		1 m	1.5 m
Required boom, front		2 x 1.5 m	2 x 1.5 m
Strut bars / parallelogram bars	Front	6 x 1.5 m	6 x 1.5 m
	Rear	3 x 1 m	3 x 1.5 m
Total travel		6.05 m	4.64 m
Maximum height	Without column extension	4.63 m	3.93 m
	With column extension	4.96 m	4.26 m
Payload		180 kg	180 kg
Counterweight with payload		520 kg	385 kg
Boom length	Front (reception flange)	4.25 m	4.25 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		283.2 kg	309.7 kg

Tab. 1: Data for 200-P2 version

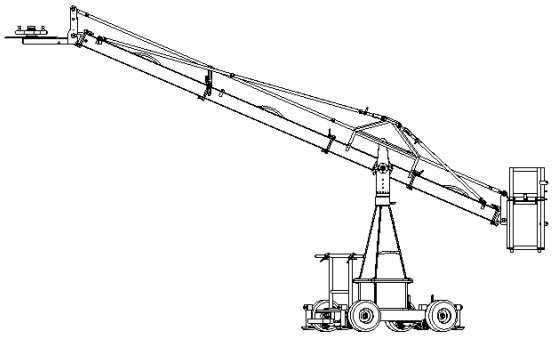


12 MT 200 remote head versions

12.1 200-R1 version

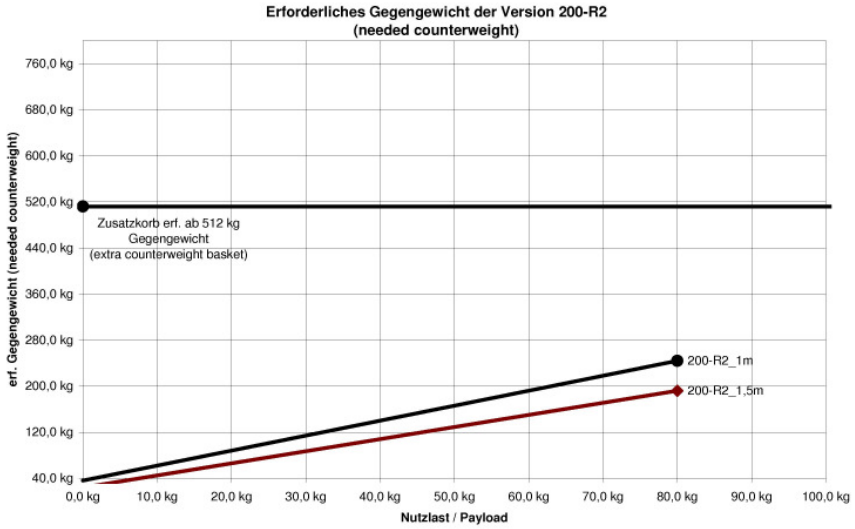
This version is identical to the 400-R1 version. See page 43.

12.2 200-R2 version

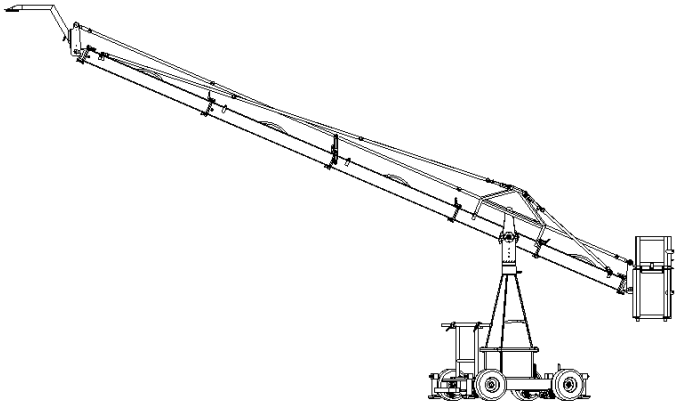


Rear boom		1 m	1.5 m
Required boom, front		2 x 1.5 m	2 x 1.5 m
Strut bars / parallelogram bars	Front	6 x 1.5 m	6 x 1.5 m
	Rear	3 x 1 m	3 x 1.5 m
Total travel		6.06 m	6.06 m
Maximum height	Without column extension	4.99 m	4.28 m
	With column extension	5.32 m	4.61 m
Payload		80 kg	80 kg
Counterweight with payload		245 kg	195 kg
Boom length	Front (reception flange)	4.57 m	4.57 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		256.2 kg	282.7 kg

Tab. 2: Data for 200-R2 version

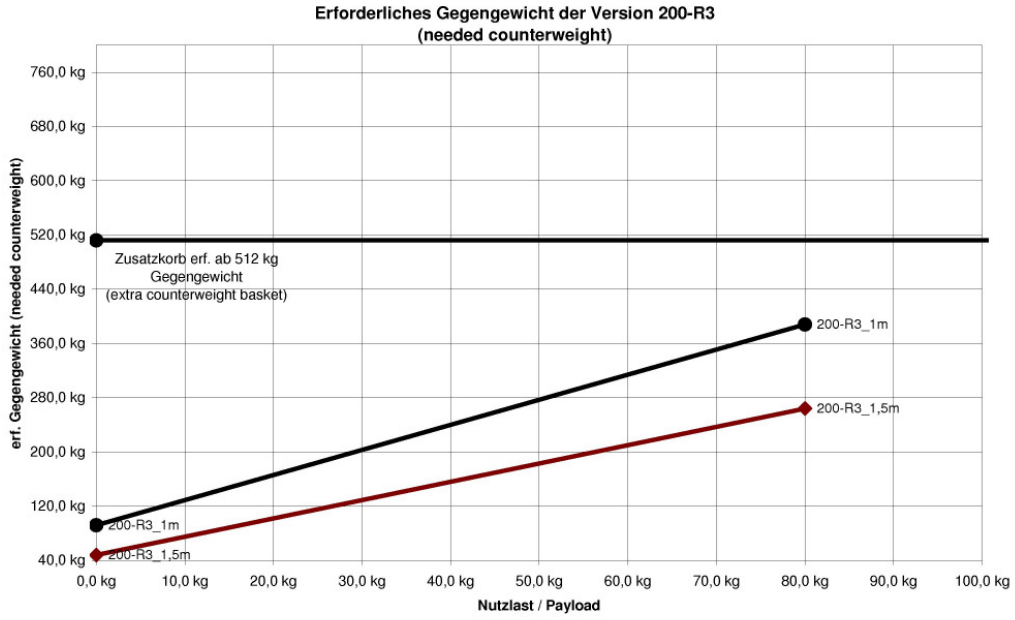


12.3 200-R3 version

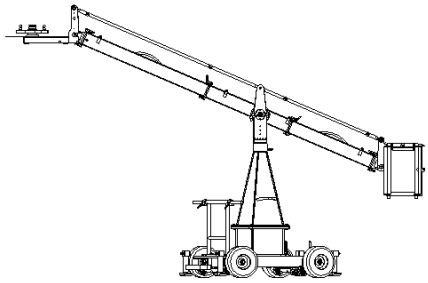


Rear boom		1 m	1.5 m
Required boom, front		3 x 1.5 m	3 x 1.5 m
Strut bars / parallelogram bars	Front	9 x 1.5 m	9 x 1.5 m
	Rear	3 x 1 m	3 x 1.5 m
Total travel		8.63 m	8.63 m
Maximum height	Without column extension	6.28 m	5.25 m
	With column extension	6.61 m	6.42 m
Payload		80 kg	80 kg
Counterweight with payload		388 kg	264 kg
Boom length	Front (reception flange)	6.05 m	6.05 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		271.6 kg	298.1 kg

Tab. 3: Data for 200-R3 version



13 MT 400 platform versions

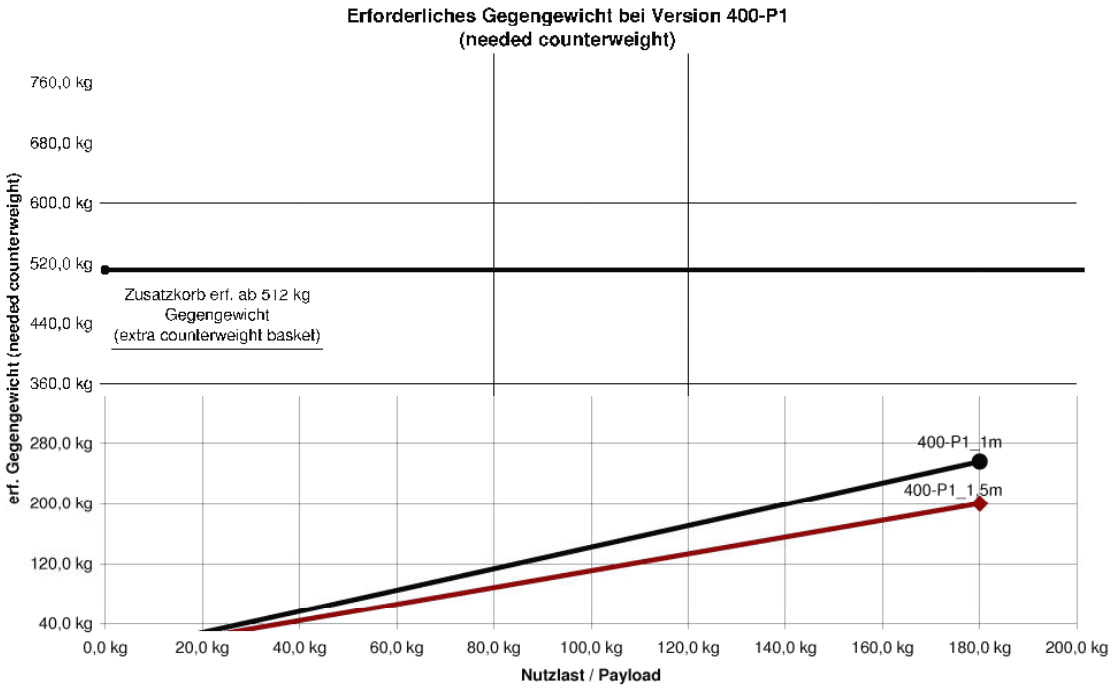


13.1 400-P1 version

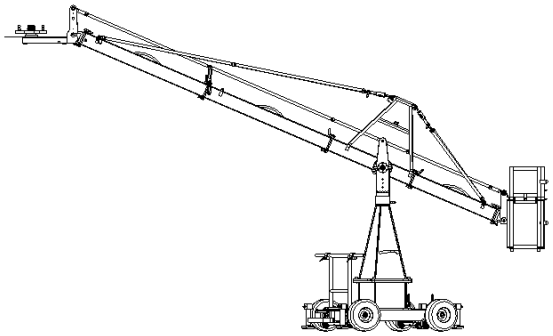
CAUTION: **Only the bottom weight basket can be mounted when used without strut bar!**

Rear boom		1 m	1.5 m
Required boom, front		1 x 1.5 m	1 x 1.5 m
Strut bars / parallelogram bars	Front	1 x 1.5 m	1 x 1.5 m
	Rear	1 x 1 m	1 x 1.5 m
Total travel		3.71 m	3.71 m
Maximum height	Without column extension	3.46 m	3.02 m
	With column extension	3.79 m	3.69 m
Payload		180 kg	180 kg
Counterweight with payload		256 kg	200 kg
Boom length	Front (reception flange)	2.77 m	2.77 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		238.5 kg	265 kg

Tab. 4: Data for 400-P1 version

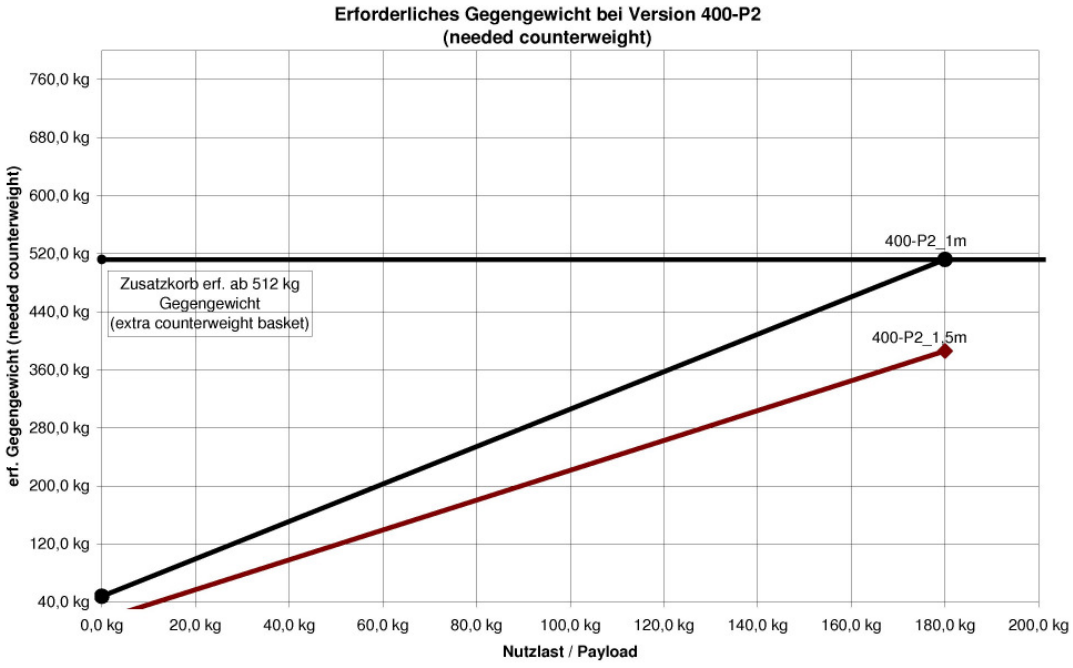


13.2 400-P2 version

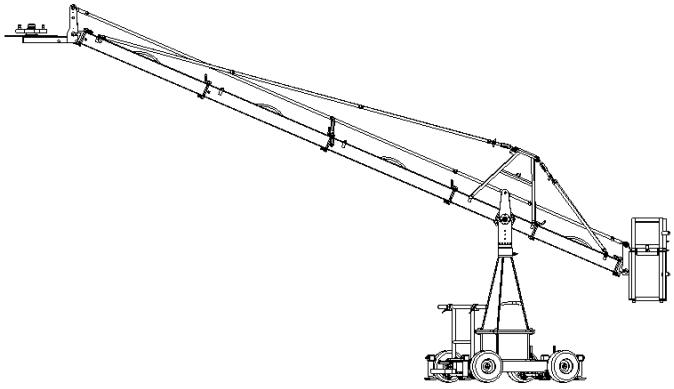


Rear boom		1 m	1.5 m
Required boom, front		2 x 1.5 m	2 x 1.5 m
Strut bars / parallelogram bars	Front	6 x 1.5 m	6 x 1.5 m
	Rear	3 x 1 m	3 x 1.5 m
Total travel		6.05 m	4.64 m
Maximum height	Without column extension	4.63 m	3.93 m
	With column extension	4.96 m	4.26 m
Counterweight unloaded		50 kg	0 kg
Payload		180 kg	180 kg
Counterweight with payload		520 kg	385 kg
Boom length	Front (reception flange)	4.25 m	4.25 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		265 kg	291.5 kg

Tab. 5: Data for 400-P2 version

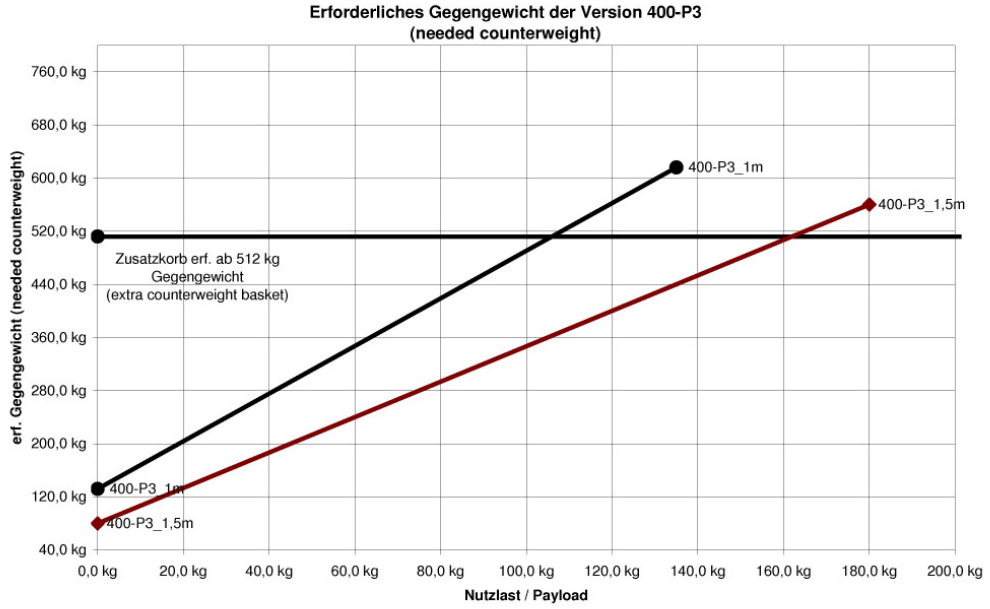


13.3 400-P3 version



Rear boom		1 m	1.5 m
Required boom, front		3 x 1.5 m	3 x 1.5 m
Strut bars / parallelogram bars	Front	9 x 1.5 m	9 x 1.5 m
	Rear	3 x 1 m	3 x 1.5 m
Total travel		8.63 m	8.63 m
Maximum height	Without column extension	5.92 m	4.89 m
	With column extension	6.25 m	5.95 m
Counterweight unloaded		132 kg	80 kg
Payload		135 kg	180 kg
Counterweight with payload		616 kg	560 kg
Boom length	Front (reception flange)	5.8 m	5.8 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		299.2 kg	325.7 kg

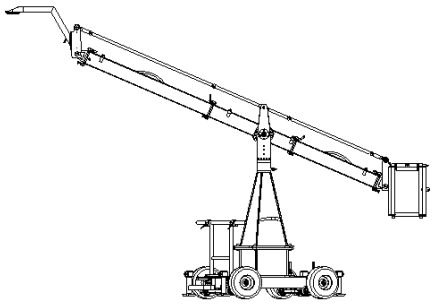
Tab. 6: Data for 400-P3 version



14 MT 400 remote head versions

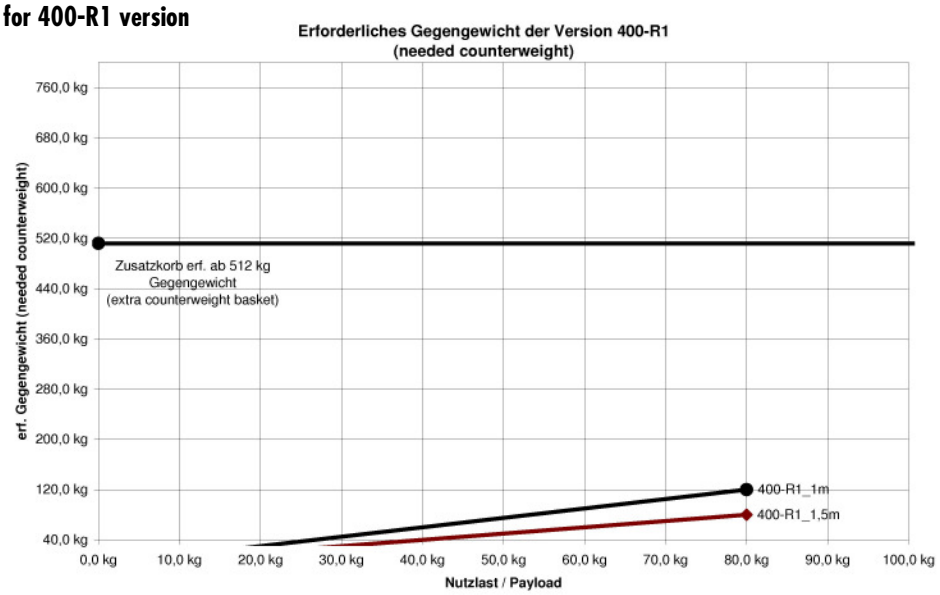
14.1 400-R1 version

CAUTION: **Only the bottom weight basket can be mounted when used without strut bar!**

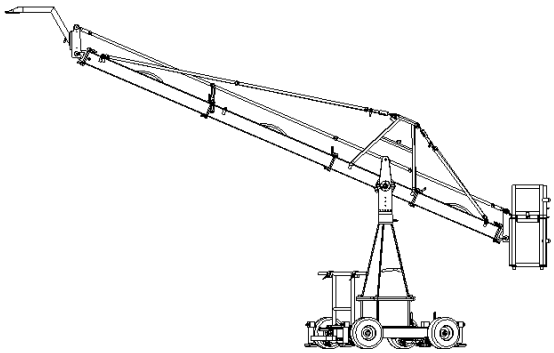


Rear boom		1 m	1.5 m
Required boom, front		1 x 1.5 m	1 x 1.5 m
Strut bars / parallelogram bars	Front	1 x 1.5 m	1 x 1.5 m
	Rear	1 x 1 m	1 x 1.5 m
Total travel		3.71 m	3.71 m
Maximum height	Without column extension	3.82 m	3.38 m
	With column extension	4.15 m	4.05 m
Counterweight unloaded		0 kg	0 kg
Payload		80 kg	80 kg
Counterweight with payload		120 kg	80 kg
Boom length	Front (reception flange)	3.01 m	3.01 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		229.7 kg	256.2 kg

Tab. 7: Data for 400-R1 version

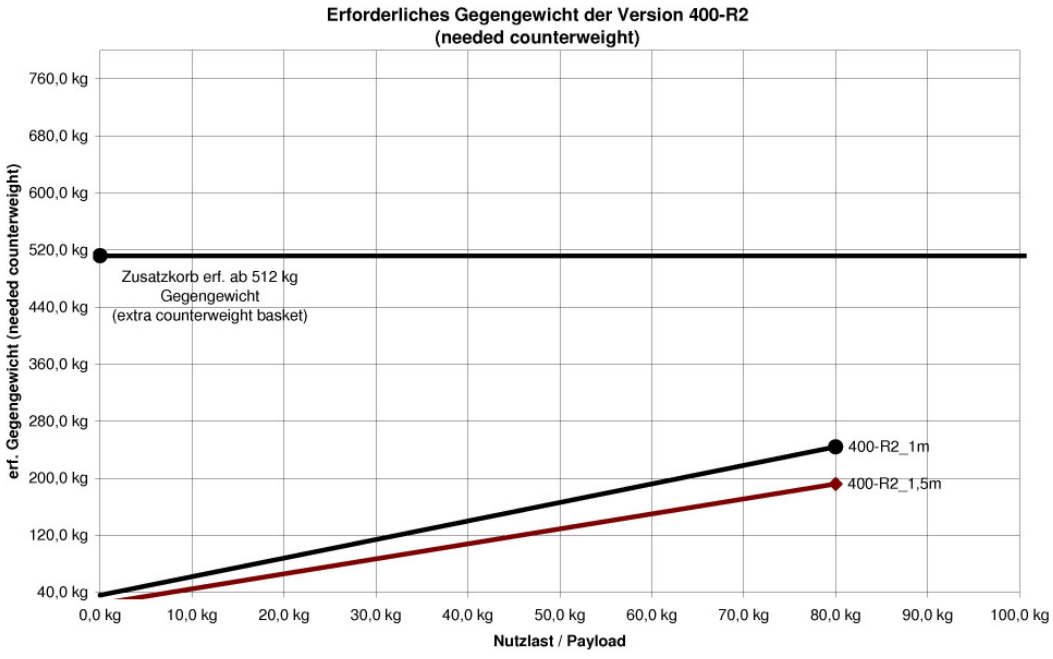


14.2 400-R2 version

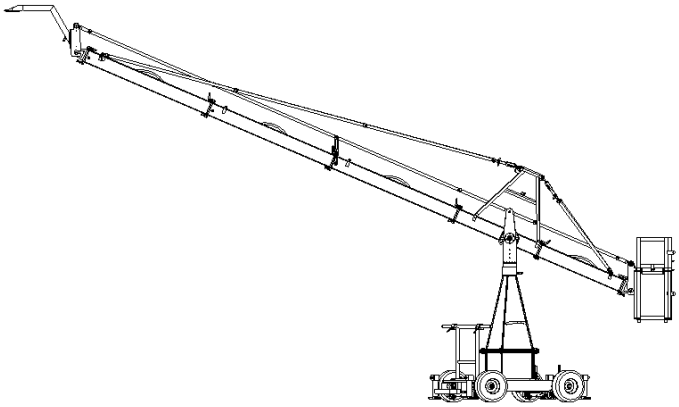


Rear boom		1 m	1.5 m
Required boom, front		2 x 1.5 m	2 x 1.5 m
Strut bars / parallelogram bars	Front	6 x 1.5 m	6 x 1.5 m
	Rear	3 x 1 m	3 x 1.5 m
Total travel		6.06 m	6.06 m
Maximum height	Without column extension	4.99 m	4.28 m
	With column extension	5.32 m	4.61 m
Counterweight unloaded		40 kg	0 kg
Payload		80 kg	80 kg
Counterweight with payload		245 kg	195 kg
Boom length	Front (reception flange)	6.05 m	6.05 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		274.4 kg	300.9 kg

Tab. 8: Data for 400-R2 version

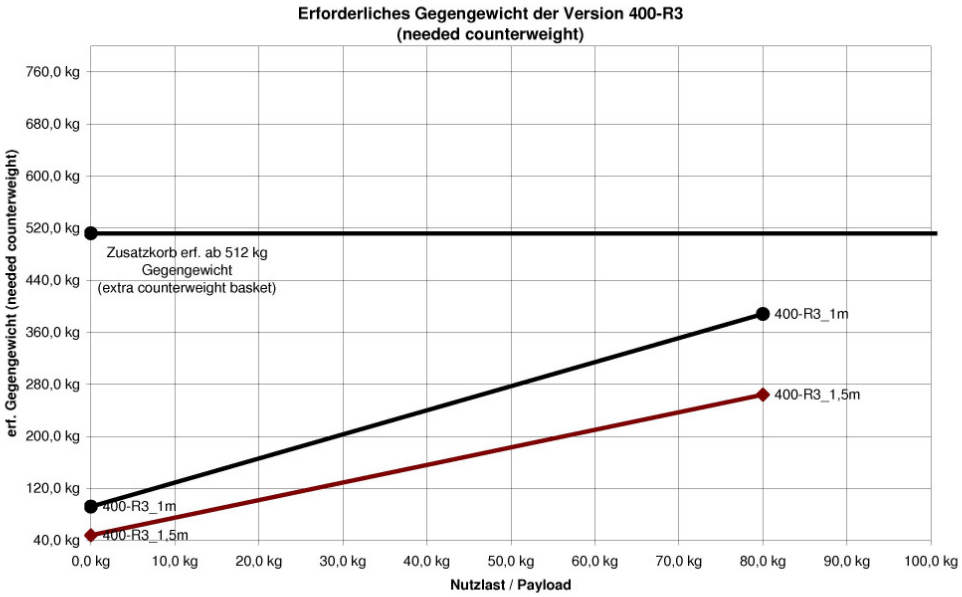


14.3 400-R3 version

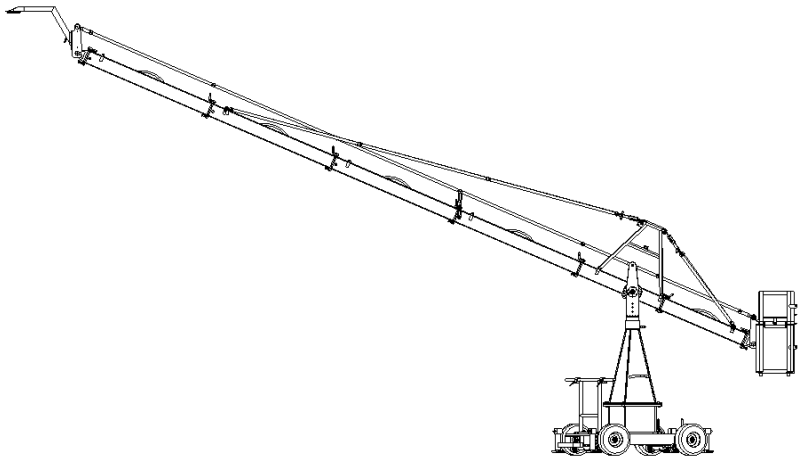


Rear boom		1 m	1.5 m
Required boom, front		3 x 1.5 m	3 x 1.5 m
Strut bars / parallelogram bars	Front	9 x 1.5 m	9 x 1.5 m
	Rear	3 x 1 m	3 x 1.5 m
Total travel		8.63 m	8.63 m
Maximum height	Without column extension	6.28 m	5.25 m
	With column extension	6.61 m	6.42 m
Counterweight unloaded		92 kg	48 kg
Payload		80 kg	80 kg
Counterweight with payload		388 kg	264 kg
Boom length	Front (reception flange)	6.05 m	6.05 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		272.2 kg	298.7 kg

Tab. 5: Data for 400-R3 version

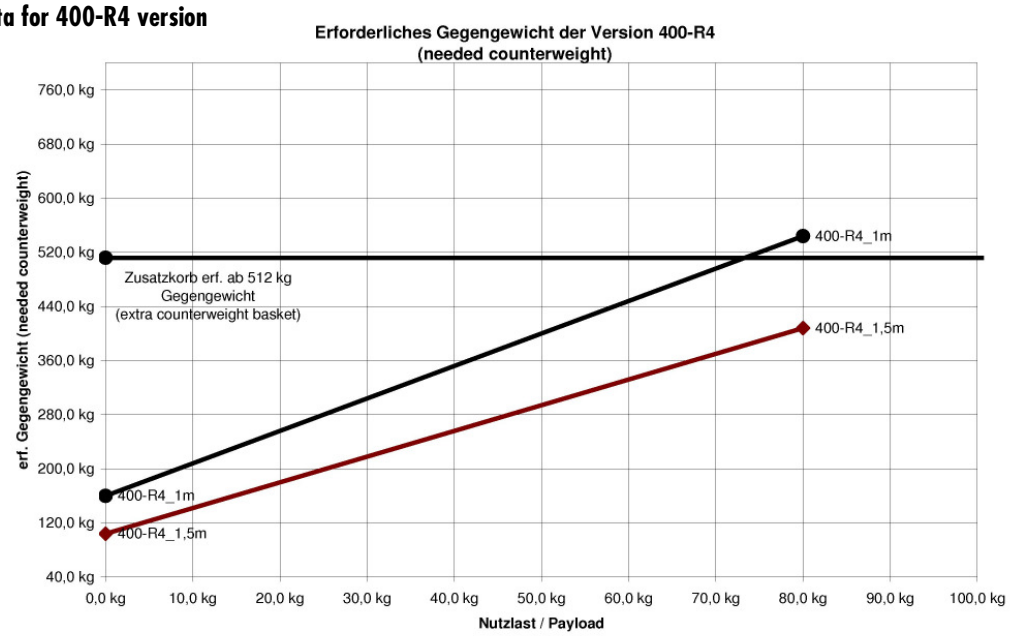


14.4 400-R4 version

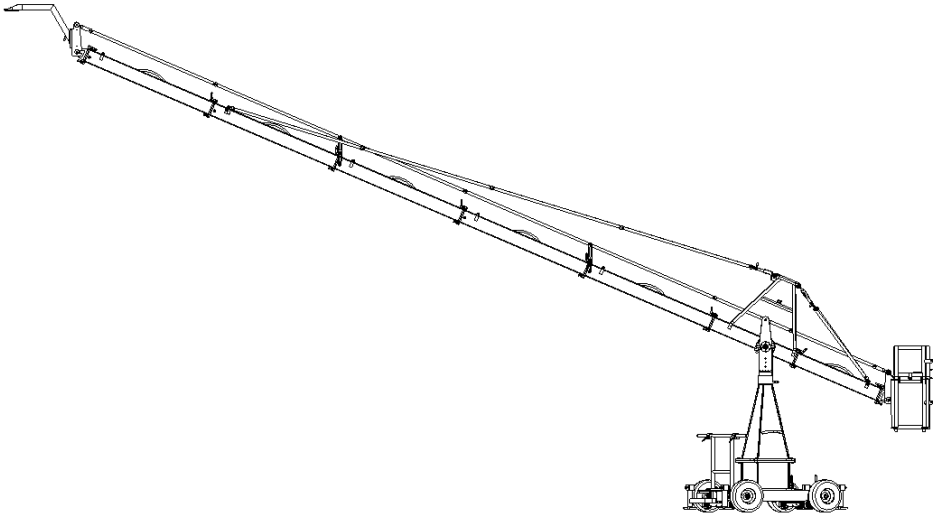


Rear boom		1 m	1.5 m
Required boom, front		4 x 1.5 m	4 x 1.5 m
Strut bars / parallelogram bars	Front	10 x 1.5 m	10 x 1.5 m
	Rear	3 x 1 m	3 x 1.5 m
Total travel		11.08 m	11.08 m
Maximum height	Without column extension	7.5 m	6.18 m
	With column extension	7.83 m	7.54 m
Counterweight unloaded		160 kg	104 kg
Payload		80 kg	80 kg
Counterweight with payload		544 kg	400 kg
Boom length	Front (reception flange)	7.57 m	7.57 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		307 kg	333.5 kg

Tab. 9: Data for 400-R4 version

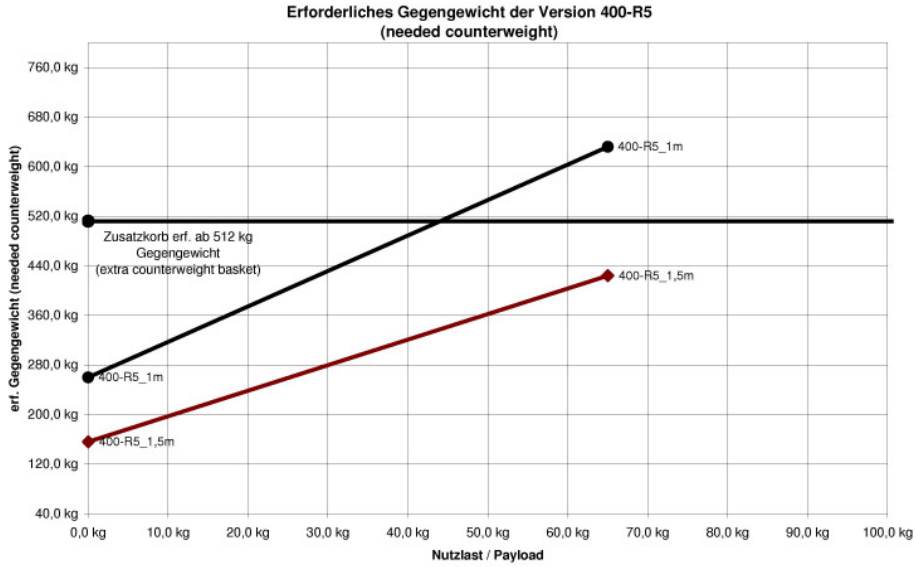


14.5 400-R5 version

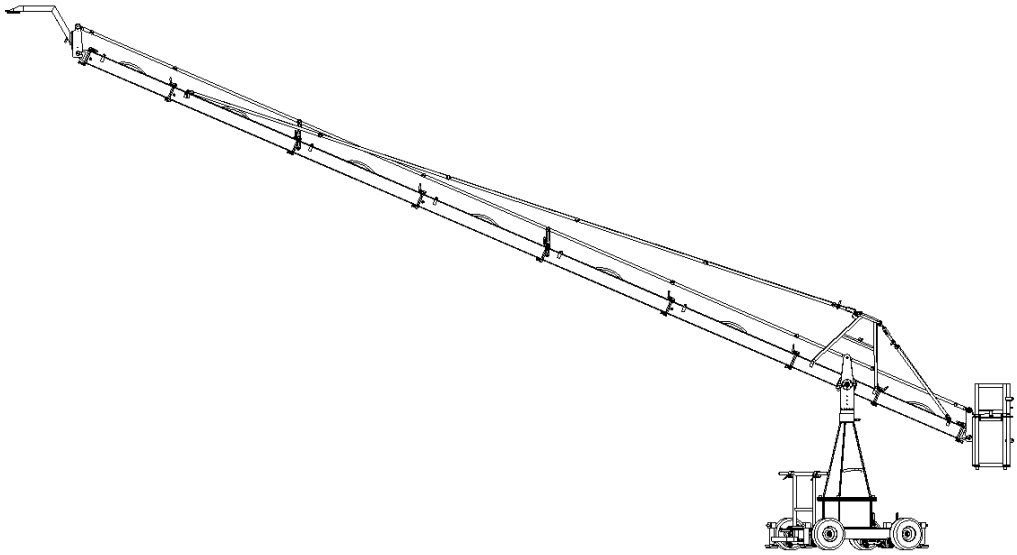


Rear boom		1 m	1.5 m
Required boom, front		5 x 1.5 m	4x1.5m+1x1m
Strut bars / parallelogram bars	Front	13 x 1.5 m	12x1.5m+1x1m
	Rear	3 x 1 m	3 x 1.5 m
Total travel		13.54 m	13.54 m
Maximum height	Without column extension	8.49 m	7.12 m
	With column extension	8.82 m	8.7 m
Counterweight unloaded		260 kg	156 kg
Payload		65 kg	65 kg
Counterweight with payload		632 kg	424 kg
Boom length	Front (reception flange)	9.9 m	9.9 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		323.6 kg	350.1 kg

Tab. 10: Data for 400-R5 version

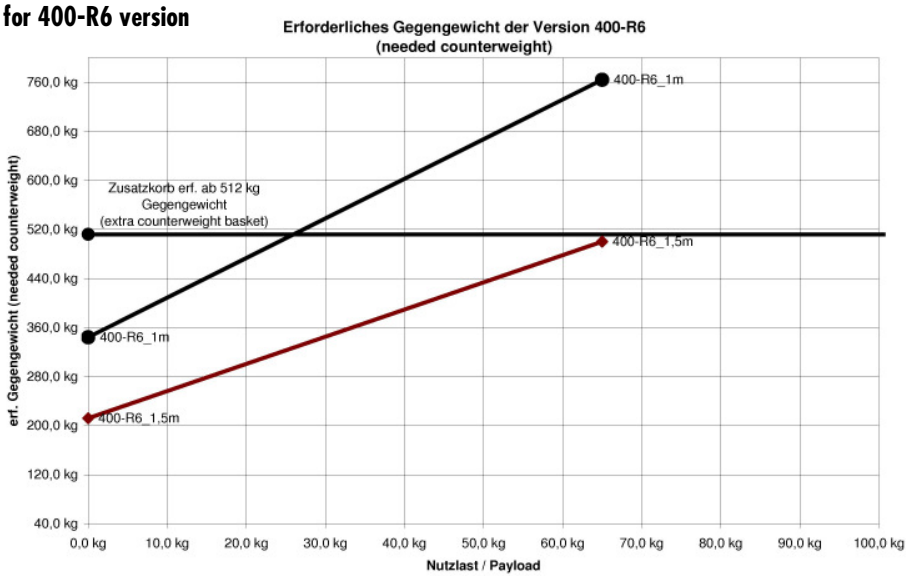


14.6 400-R6 version

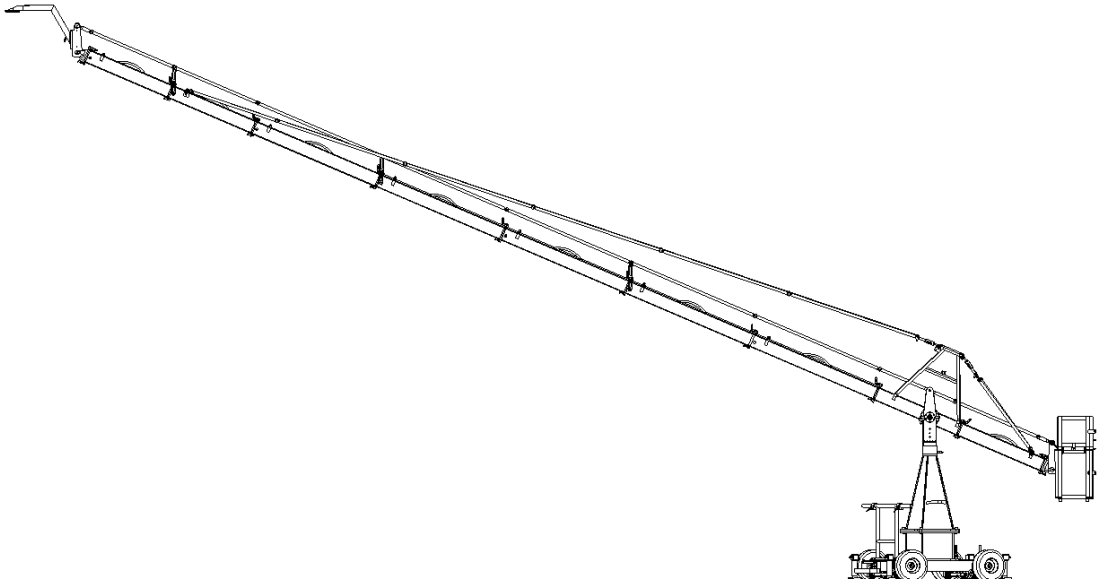


Rear boom		1 m	1.5 m
Required boom, front		5x1.5m+1x1m	4x1.5m+2x1m
Strut bars / parallelogram bars	Front	15x1.5m+1x1m	12x1.5m+4x1m
	Rear	3 x 1 m	3 x 1.5 m
Total travel		15.52 m	15.52 m
Maximum height	Without column extension	9.7 m	7.5 m
	With column extension	10.03m	9.3 m
Counterweight unloaded		344 kg	220 kg
Payload		65 kg	65 kg
Counterweight with payload		764 kg	500 kg
Boom length	Front (reception flange)	10.13 m	9.68 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		333.1 kg	359.6 kg

Tab. 11: Data for 400-R6 version

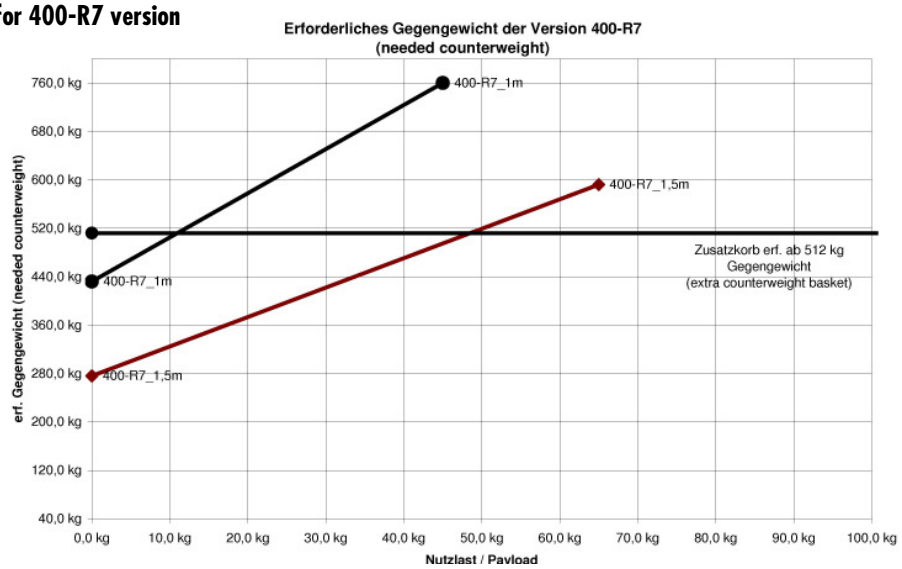


14.7 400-R7 version



Rear boom		1 m	1.5 m
Required boom, front		5x1.5m+2x1m	4x1.5m+3x1m
Strut bars / parallelogram bars	Front	15x1.5m+4x1m	12x1.5m+7x1m
	Rear	3 x 1 m	3 x 1.5 m
Total travel		16.84 m	16.84 m
Maximum height	Without column extension	10.38 m	8.38 m
	With column extension	10.72 m	10.27 m
Counterweight unloaded		432 kg	276 kg
Payload		45 kg	65 kg
Counterweight with payload		760 kg	592 kg
Boom length	Front (reception flange)	11.13 m	10.64 m
	Rear (outer edge of basket)	1.97 m	2.45 m
Own weight without payload and counterweights		344.4 kg	367.4 kg

Tab. 12: Data for 400-R7 version



15 Checks

The inspections carried out by specialist and technical experts are documented in the following sections.
Expert testing is required every four years, specialist testing every two years.
Training is available for obtaining specialist status at Movie Tech AG in Munich, Germany on request.

Manufacturer:	Movie Tech AG
Model:	_____
Version:	_____
Crane serial number:	_____
Base serial number:	_____
Year of manufacture:	_____

15.1 Test certificates

Name of the tester	Qualification		Version tested		Date	Deficiency, generate report
	SV	SK	P2 / P3	R7		if necessary

Name of the tester	Qualification		Version tested		Date	Deficiency, generate report if necessary
	SV	SK	P2 / P3	R7		

15.2 Deficiency reports

When the operator is repairing deficiencies, use original replacement parts only.

Tester	Date	Deficiency determined

16 Test certificates

Fachausschuss Verwaltung
Prüf- und Zertifizierungsstelle
im BG-PRÜFZERT

Hauptverband der gewerblichen
Berufsgenossenschaften

BG-Prüfbescheinigung

074507
Bescheinigungs-Nummer

Name und Anschrift des Bescheinigungsinhabers: (Auftraggeber)	Movie Tech AG Martin-Kollar-Str. 9 81829 München
Name und Anschrift des Herstellers:	s.o.

Zeichen des Auftraggebers:	Zeichen der Prüf- und Zertifizierungsstelle:	Ausstellungsdatum:
	B 064013	27.07.2007

Produktbezeichnung:	Kamerakran mit und ohne Personenbeförderung
Typ:	MovieTech, Serie MT400
Bestimmungsgemäße Verwendung:	Einsatz in Veranstaltungs- und Produktionsstätten für szenische Darstellung
Prüfgrundlage:	BGV C 1:1998-04 DIN EN ISO 12100-1:2004-04 DIN EN ISO 12100-2:2004-04
Zugehöriger Prüfbericht:	B 064013
Bemerkungen:	Das Kamerasystem MT400 wurde i.V.m. dem starren Schienensystem Master Track geprüft. Für das System Master Track sind alle technischen Prüfungen durchgeführt worden.

Das geprüfte Baumuster entspricht der oben angegebenen Prüfgrundlage.
Der Bescheinigungsinhaber ist berechtigt, das umseitig abgebildete BG-Zeichen an den mit dem geprüften Baumuster übereinstimmenden Produkten anzubringen, und zwar mit dem unter 'Bemerkungen' genannten Hinweis.

Diese Bescheinigung wird spätestens ungültig am:

31.07.2012

Weiteres über die Gültigkeit, eine Gültigkeitsverlängerung und andere Bedingungen regelt die Prüf- und Zertifizierungsordnung vom April 2004.

Leiter des Zertifizierungsgebiets

Prüf- und Zertifizierungsstelle im BG-PRÜFZERT Fachausschuss Verwaltung

Fachzertifizierer

PZB08D
01.07

Postadresse:
22281 Hamburg

Hausadresse:
Deelbögenkamp 4
22297 Hamburg

Telefon: +49 40 / 51 46 - 27 75
Telefax: +49 40 / 51 46 - 20 14
E-Mail: hv.pruefzert@vbg.de

MovieTech

Movie Tech AG, located in Munich, is one of the leading manufactures of products and solutions for the film industry. The product line of Movie Tech AG includes the hole range of camera cranes, dollys, light systems, remote heads and related accessories. Movie Tech AG purpose is to build professional film equipment to make the work for film teams on the set or in the studios easier. In order to fulfill customer's requests better, Movie Tech AG has branches in the U.S. and Italy.

ABC PRODUCTS

Movie Tech AG acquired the company ABC-Products in January 2000 with the objective to improve the development in the broadcast market. ABC-Products is today one of leading brands in the area of extremely light and high-grade broadcast equipment.

MTS
Media Technical System

Since 2006, MTS equipment has been added to the portfolio of MovieTech AG. MTS - Media Technical Systems - manufactures premium studio equipment, including droparms, pantographs, lighting hoists, and telescopes.

MovieTech AG
Martin-Kollar-Str. 9 · 81829 München · Germany
Tel. +49/89-4368913 · Fax +49/89-43689155
e-mail: info@movietech.de · www.movietech.de

MovieTech
www.movietech.de