



Manual

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1) Safety Guidelines

The ABC Crane 100 may only be set-up or operated by trained and experienced personnel. Never leave the crane unwatched after set-up.

The set-up instructions must be read and understood before set-up or operation.

The crane may only be set-up in accordance with the manufacturers set-up instructions.

The crane may not be set-up or operated under influence of alcohol, drugs or any other intoxication substances.

No liability for damages or injuries will be accepted by the manufacturer for incidents or accidents occurring due to negligence or misuse of the crane.

Before assembling the crane ensure that the ground surface is stable and cannot give way.

The crane may not be operated if optional wind speed exceeds 30 km/h (18,6 mi./h).

The complete lift and panning range of the crane must be kept clear at all times.

Do not operate the crane in the vicinity of high voltage power cables. Danger!

When panning the crane the counterweights should not touch or rub against the ground.

When operating the crane on dollies with pneumatic wheels ensure that tire pressure remains at maximum 7 bar. Safety support pins must be used.

When operating the crane on track ensure that the track is correctly supported and the underlay cannot move or slip. Ensure that each track runner is supported.

The crane may only be operated on level surfaces.

Whether operating on track or on ground surface it is essential that the track or surface is completely level, stable and free from obstructions.

The manufacturers technical specifications and limits must be adhered to at all times and in no way exceeded.

The max. amount of counterweights may not be exceeded.

Avoid aggressive movements under all circumstances.

When moving the crane on the ground (pushing / or pulling dolly) the crane may not be moved to the point where there is a danger of toppling the crane.

It is forbidden to operate the crane on any type of car or vehicle.

2) Introduction

You purchased a crane presenting very special construction features.

a) It is ultra-light.

You effortlessly transport the crane to any location worldwide.

b) It is assembled in a matter of minutes.

You don't need additional tools. All essential parts are captive and self-locking.

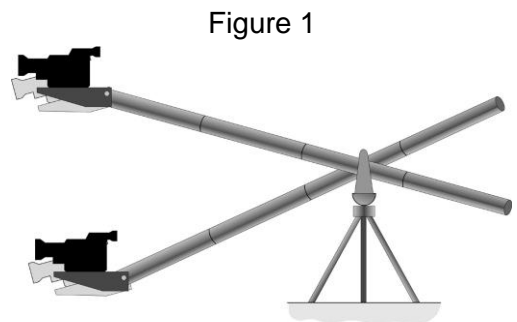
c) Your tripod as basis.

You don't have to carry along unnecessary equipment for the crane basis (see "Tripod" below).

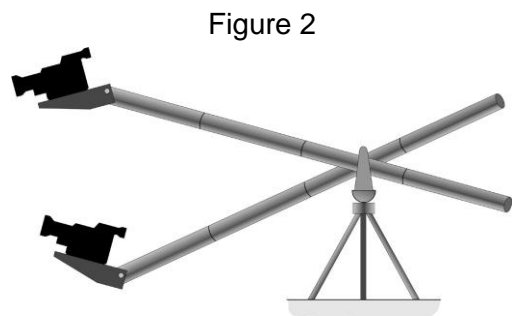
d) Camera Position.

With a single grip you are able to preselect horizontal camera position while lifting and lowering, e.g.

- the camera stays in horizontal position, or a preselected tilt angle (Figure 1).



- the camera view automatically tilts downwards on lifting the crane (Figure 2).



These features offer you a globally unrivaled crane. Many call the ABC Light Crane as a "travel crane". You will be surprised by the creativity the ABC Light Crane provides you: at any location worldwide without electronics and a failure-free technology.

3) Technical Data

Weight (without tripod):	14 kg (30 lbs)
Shipping size:	180 x 35 x 35 cm (70.8 x 13.7 x 13.7 in)
Maximum total length:	7.7 m (25.3 ft)
Length Middle Version:	6.2 m (30.3 ft)
Length Short Version:	4.7 m (15.4 ft)
Camera lift (max. at 1.5 (4.9 ft) tripod height):	5.5 m (18 ft)

Maximum camera weight standard operation

Length 7.7 m (25.3 ft):	15 kg (33 lbs)
Length 6.2 m (30.3 ft):	25 kg (55 lbs)
Length 4.7 m (15.4 ft):	40 kg (88 lbs)

Maximum camera weight while operating ABC Remote-Head

Length 7.7 m (25.3 ft):	10 kg (22 lbs)
Length 6.2 m (30.3 ft):	15 kg (33 lbs)
Length 4.7 m (15.4 ft):	30 kg (66 lbs)

Formula for calculatin the counterweight

Formula:	Crane weight x	Factor +	Camera weight	= Counterweight
Length 7,7 m	17 kg x	3,9 +	15 kg	= ca. 81,3 kg
Length 6,2 m	14 kg x	2,9 +	25 kg	= ca. 65,6 kg
Length 4,7 m	6 kg x	1,9 +	30 kg	= ca. 41,4 kg

4) Sensibility

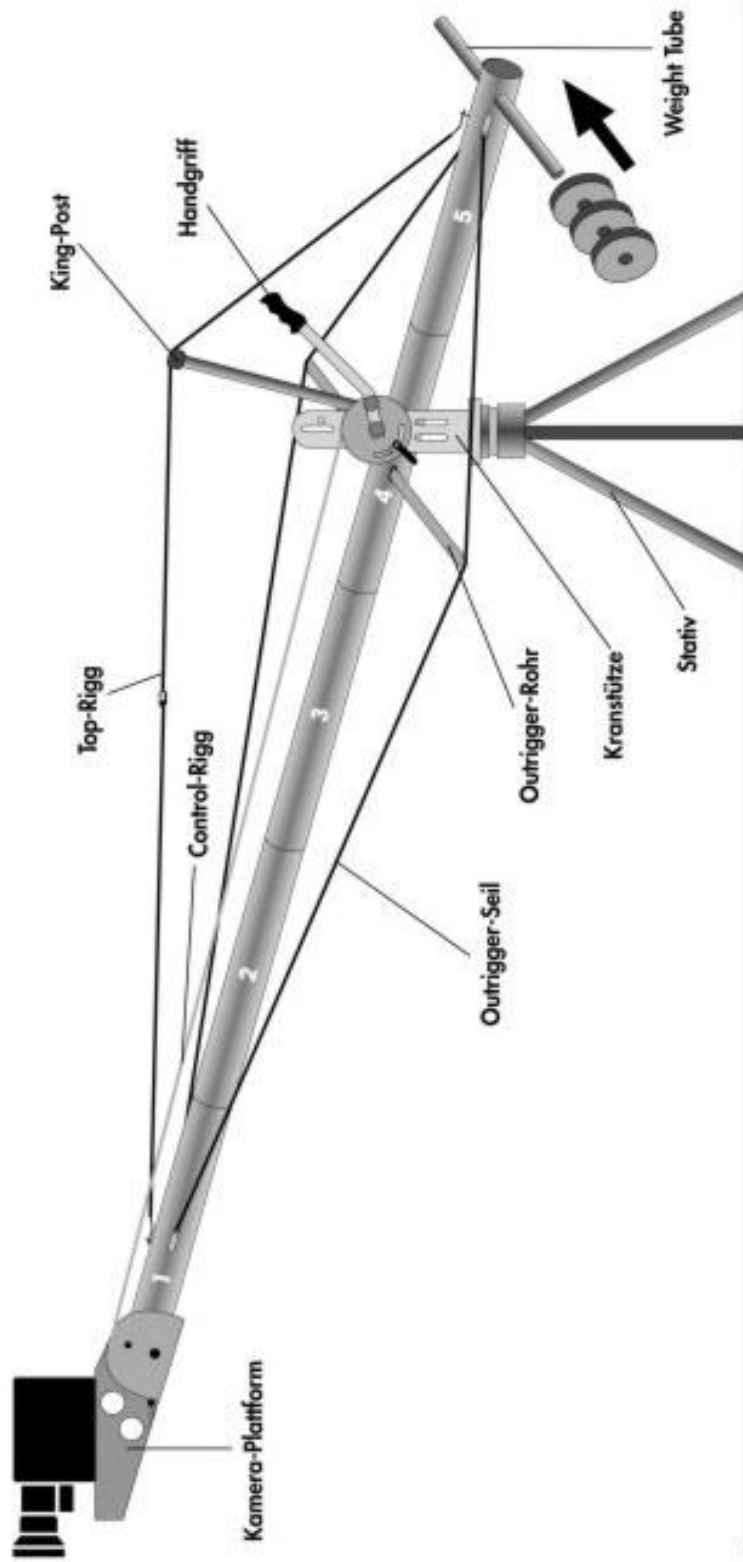
The ultra-light structure of the main tube is made up of an aluminium-titan alloy with a wall thickness of 0.9 mm (0.035 in). Despite its dimensions, the tube is firm and tough.

However, when disassembled the crane may be damaged at the open tube ends by severe transportation impact.

Please avoid this, especially during flight transport, by using a solid cardboard or a transport box.

5) **General Description**

- 1) Camera Mount
- 2) Outrigger Cable
- 3) Outrigger Tube
- 4) Top-Rig
- 5) Control Rig
- 6) Tripod
- 7) Lever
- 8) Crane Support
- 9) King-post



6) Tripod

Only extremely sturdy camera tripods qualify as base support for the ABC Light Crane 100 have to meet two essential requirements:

- tripods may have a shell bearing up to a maximum diameter of max. 150 mm Ø (5.90 in)
- telescopic tripod legs have to firmly clamped using a screw terminal.

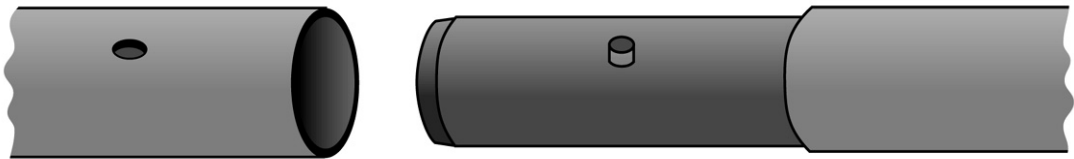
Generally, a foldable lever with a clamp mechanism is not sufficient. The risk that extended tripod legs may be pushed together is relatively high with this mechanism. Your crane may take a sloping position and, in an extreme case, tip over.

7) Crane Assembling

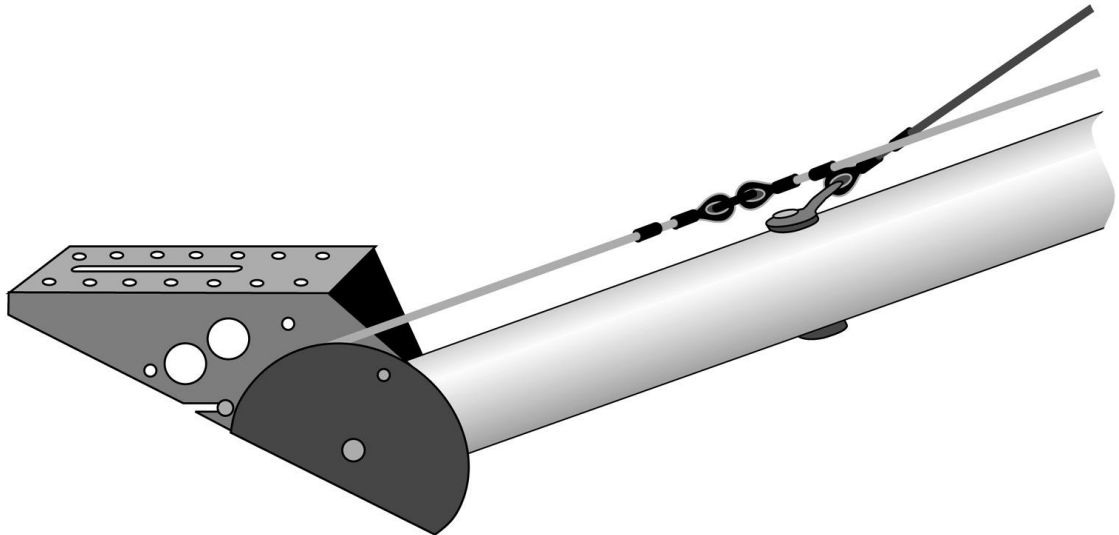
The assembling system is designed for quick and mobile use. When you master all assembly steps, the ABC Light Crane is ready for operation within 5 minutes.

The Basic Sequence:

- a) Slide together tube 1 to 5 (pushbutton principle).



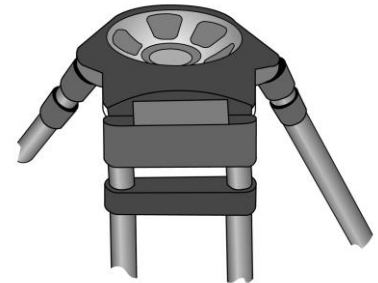
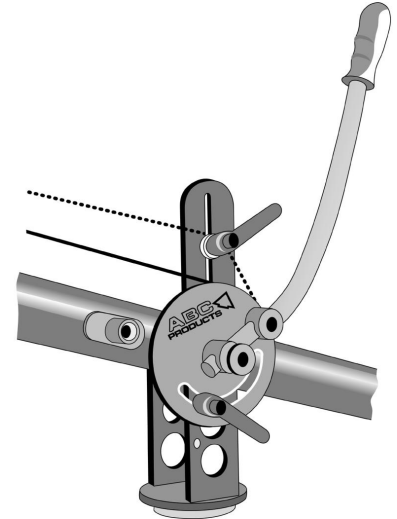
- b) Unfold outrigger-tubes.
- c) Hook outrigger-cables with hook in mounting links at both ends of tube 1.
- d) Hook outrigger-cable in slots of outrigger-tubes.
- e) Unfold king-post; hook top-rig in slot of king-post.
- f) Slide weight-tube in tube 5 through opening.
- g) Draw control-rig to camera mount using rig wheel.
Connect the control-rigg to crane bead on one end and to connection of the control lever end



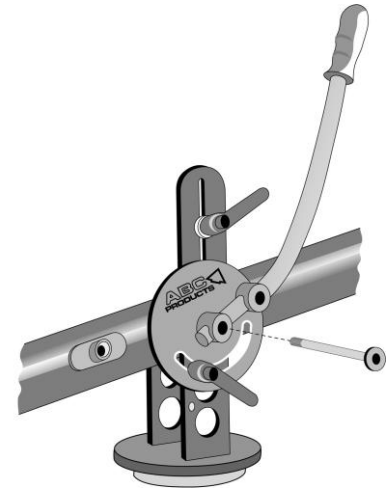
- h) Place crane support on tripod shell, and firmly bolt together with shell from below by using attachment screw.

Please make sure that crane support is exactly horizontally leveled.

By default, the crane support is equipped with a aluminium disk with a diameter of 160 mm (6.29 in).

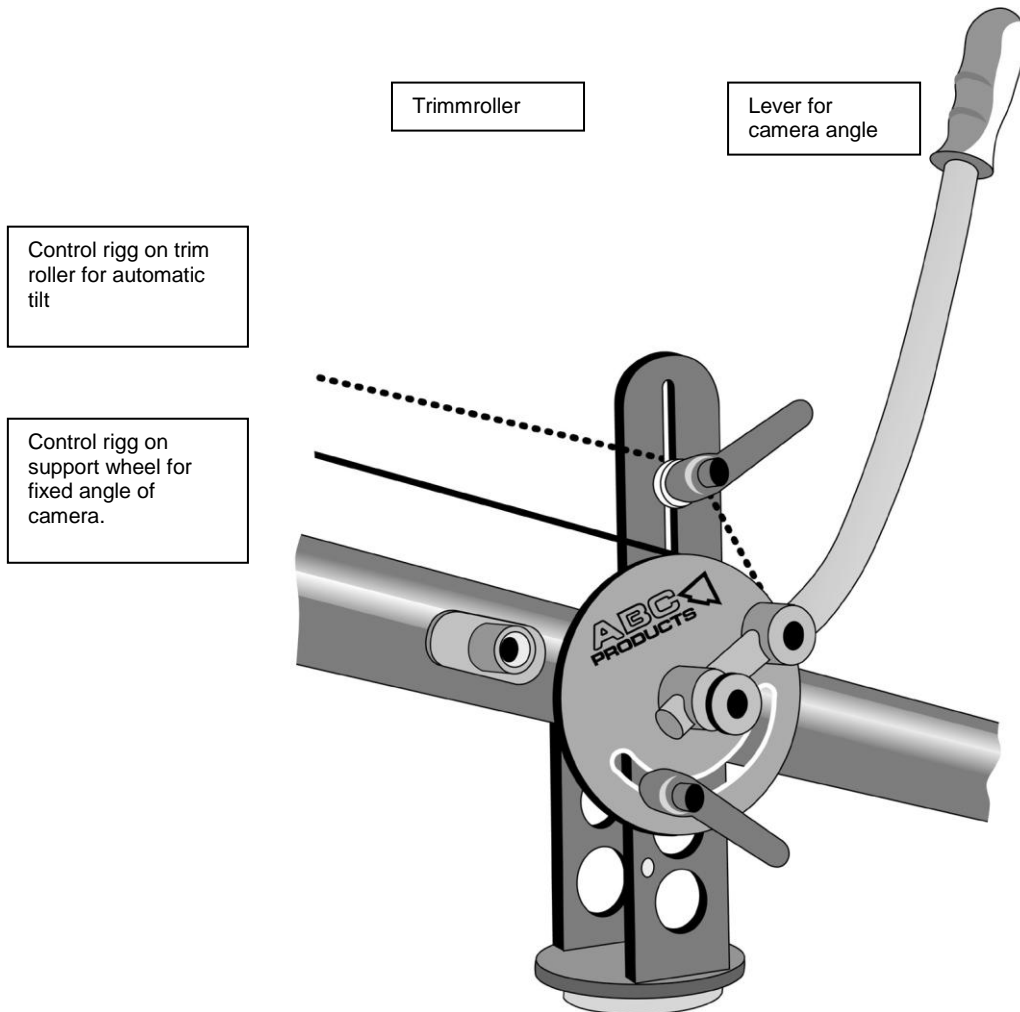


- i) Insert crane tube between both pads of the crane support, and secure by using 8 mm (0.314 in) bolt.

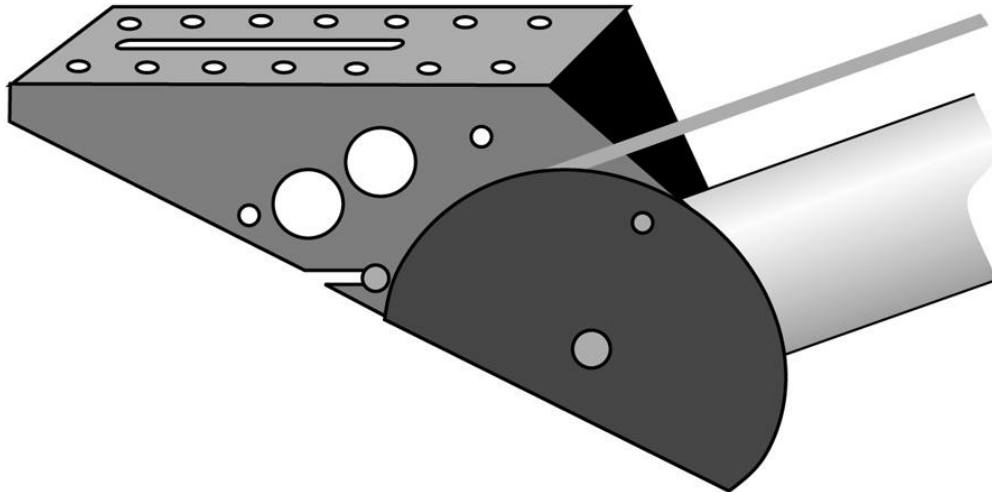


8 mm (0.314 in) bolt

- k) For the parallel camera position draw control-rig to crane support wheel.
- l) In case you favor automatic tilt of camera position while lifting, please draw control-rig using crane support trim roller. The further you move the trim roller up, the more pronounced change of camera position will be. You fix trim roller position by using the clamping lever.



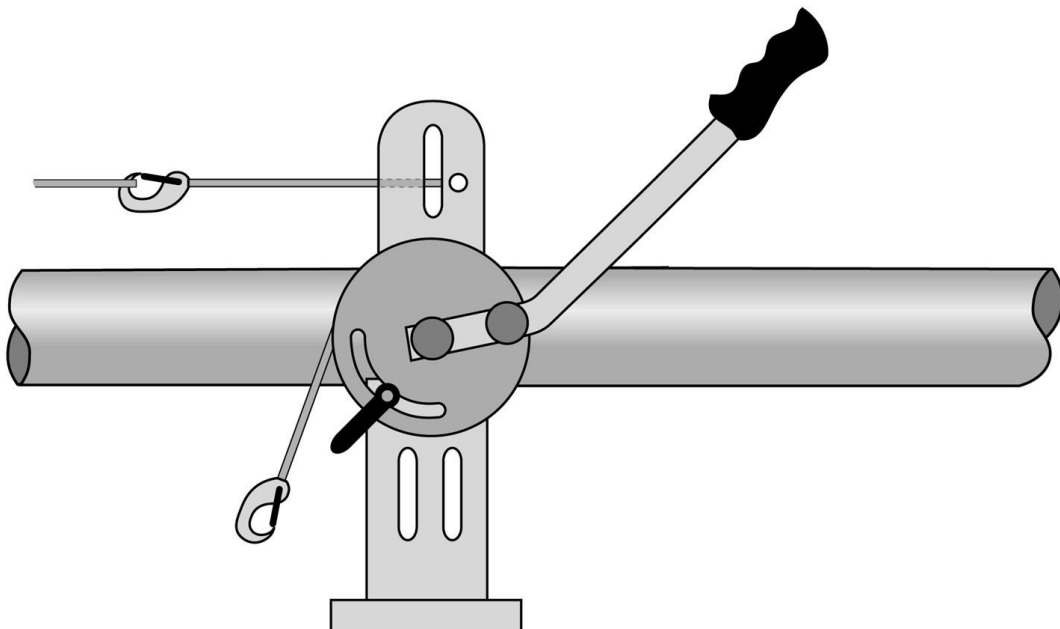
- m) For a parallel camera position it is necessary to horizontally trim camera mount. At first, use spirit level. Then precision adjustment is done by using spanner nut in the control-rig (in front of the camera mount). To assist you a spirit level is integrated on the opposite side.



Attention!

Before applying camera and counterweights to the crane, you must make sure that the tripod stands secure and stable, and that crane support is horizontally positioned.

Using Crane support with Remote Head Operation



- 1) The same trim rig is used for remote and standard operation
- 2) Lever for standard operation without Remote Head
- 3) Lashing cleat for trim rig for standard operation without Remote Head
- 4) Crane support

8) Counterweight

The counterweight is not included in delivery. The tube for applying the counterweight has an outside diameter of 30 mm (1.18 in). Here you may attach barbell disks with a matching inside width of 30 mm (1.18 in).

In countries where inch measure prevails, commercial barbell disks come with 25 (0.98 in) or 28 mm (1.10 in). You have to drill these disks. Please note that you approx. Need the fourfold of the camera weight. Optional accessories are sandbags not included in delivery. You may fill sandbags on location with any kind of ballast.

9) Crane Disassembling

- a) **First of all, remove the weights!!!** Please remove weights separately.
- b) The camera mount now rests on the ground. You may detach the camera without objection.
- c) Now, follow the reverse order as with assembling to (see „Crane Assembling“ above) to disassemble the crane.

10) Crane Use in Short Version

The rigs are dimensioned and segmented in a way to assemble the crane without using tube 2 or 3. When using this short version you may do without the outrigger. Then the top-rig hook is hooked in the vacant outrigger mounting link.

Apart from that, the assembling system is the same. Please use the shortened control-rig for the short version. The total length of the short version is 3m (9.8 ft). Crane disassembling procedure is the same as with standard version.