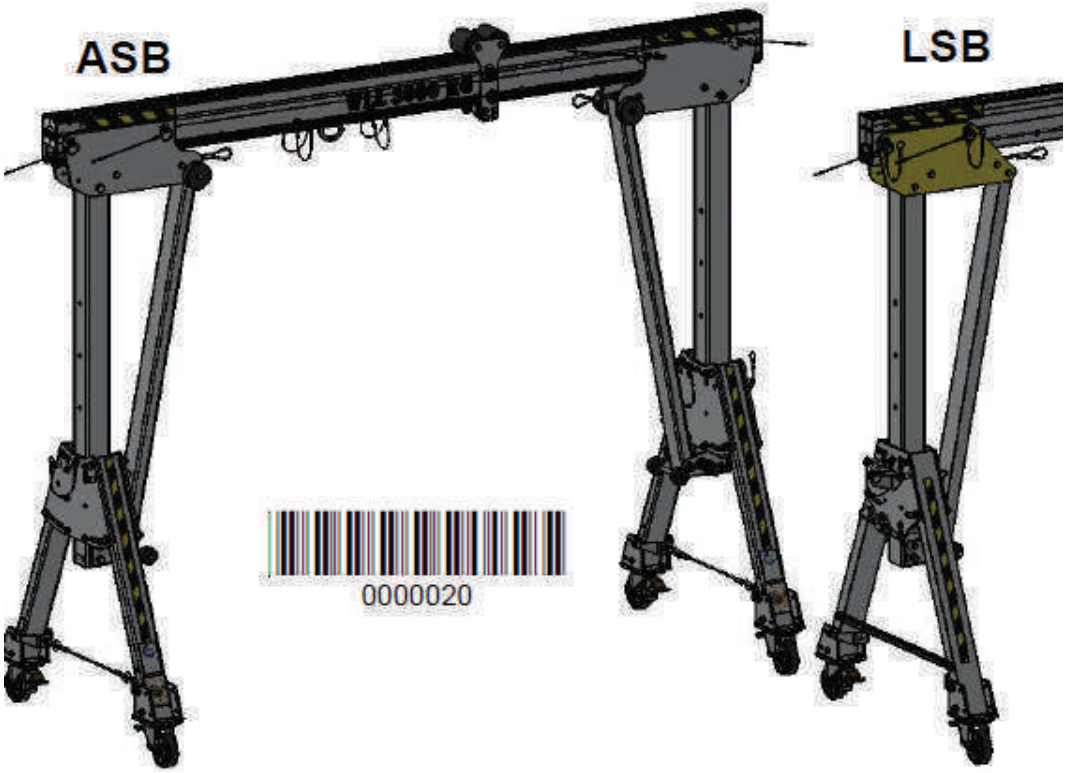
ASB/LSB
ALUMINIUM SUBSTRUCTURE



The ASB device is certified “Tested product” TUV NORD:

CONTENTS

1. SECTION 1 – GENERAL INFORMATION

1.1. DESCRIPTION

The substructure of the ASB/LSB series allows lifting accessories to be connected and then provides a complete, modular, portable, fully customisable, collapsible handling device, designed for lifting and lowering loads in: wells, reservoirs, silos, roofs, lift shafts, water and wastewater management, among others. No additional tools are required to install the ASB/LSB unit (Unit Installation – Section 2).

Beam: 2 to 7 metres.
Combined ASB beam: 8 and 9 metres.
ASB supports: types – A1/B1/C1/C2.
LSB supports: types – E1/F1/G1/G2.
Permissible working load (WLL) of the ASB: 1,500 kg to 3,500 kg (depending on configuration – see ASB Technical Data Table).
Permissible working load (WLL) of the LSB: 500 kg to 2000 kg (depending on configuration – see LSB Technical Data Table).
Safety coefficient for load handling: 2.1:1.
Safety coefficient for personal protection: 10:1.
ASB (standard beams) – Protection for up to five people at a time.
ASB (combined beam) – Protection for up to two people at a time.
LSB – Protection for up to three people at a time.

1.2. INTENDED USE

1.2.1. Load handling only

The ASB/LSB can be used to lift/lower loads with the correct working load limit (WLL – which is always placed on the beam) using chain hoists, the RUP50x-CT/DT series and other lifting devices. An external carriage should be used for load handling.
Load handling – see Section 3.

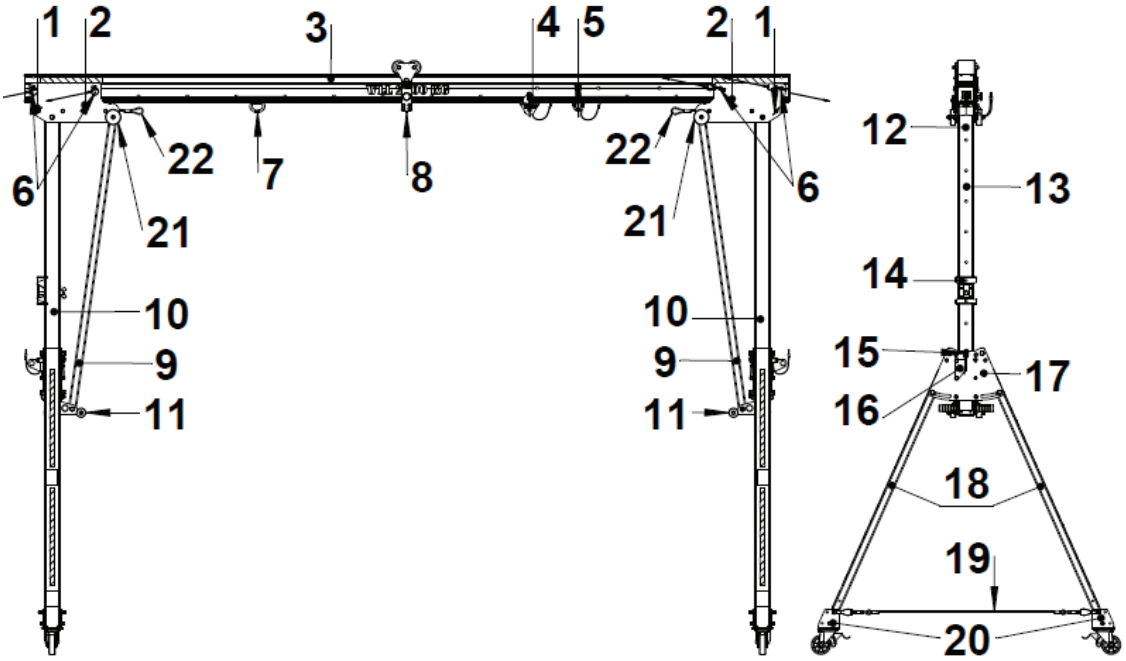
1.2.2. Individual protection and load handling

The ASB/LSB can be used for individual protection purposes (in the case of the ASB to protect max. 5 people at a time, and for LSB to protect max. 3 people at a time) when lifting/lowering loads. If combined beams of an ASB unit are used – max. 2 people at a time. When carrying out both activities (personal protection and lifting/lowering of loads) at the same time, the WLL value for the device placed on the beam must be reduced – see Section 3. An internal carriage should be used for the purpose of personal protection. Personal protection – Section 4 Load handling and individual protection at the same time – Section 5.

1.2.3. Rescue and individual protection only.

The ASB/LSB device may be used for rescue purposes and purposes related to personal protective as an element of personal protective equipment against falls from a height. Loads may not be lifted/lowered during rescue operations. For rescue purposes, use the rescue lifting device RUP50x-C or RUP50x-D. An internal carriage should be used for personal protection. Rescue purposes – Section 6. Personal protection – Section 4

1.3. GENERAL VIEW OF THE ASB/LSB UNIT



1. RUP50x-T working rope guide roller (optional)
2. front support plate
3. beam
4. beam pulley (optional)
5. support lifting link
6. pin with a cotter pin
7. internal carriage, belay (optional)
8. external carriage, freight
9. bracing
10. supports: ASB FA1/FB1/FC1/FC2/ | LSB E1/F1/ G1/G2
11. bottom rollers for easy transport of the support
12. adjustable support
13. vertical support profile
14. lifting device support for installation of lifting device RUP50x-CT (optional)
15. pin with a cotter pin
16. chain hoist handle for easy beam height adjustment (optional)
17. side support plate
18. support legs
19. steel rope connecting the legs
20. swivel castors with Wx brake
21. top rollers for easy transport of the support
22. wire for lifting the support

1.4. GENERAL GUIDELINES

1.4.1. INSPECTION BEFORE FIRST USE

Before the first use of the ASB/LSB device, a competent person should carry out its visual inspection and functional check. The inspection is intended to check that all parts of the device are safe and have not been damaged as a result of incorrect assembly, transport or storage. The user is responsible for the inspections.

1.4.2. INSPECTION BEFORE USE

Before each use, always perform an initial check of the device in terms of correct operation in order to make sure that the condition of the device allows its safe use. During the initial inspection of the device, check all its elements in terms of damage, excessive wear, corrosion, abrasion, cuts or incorrect operation. The following aspects should be checked, in particular:

- visible faults of the units,
- whether the carriages freely move along the beam,
- whether the working load limit (WLL) of the device is adequate for the application and not exceeded. The user is responsible for the inspections.

1.4.3. MAXIMUM USEFUL LIFE/REGULAR INSPECTION

The maximum service life of the ASB/LSB device is unlimited, however, it depends on the degree of use and ambient conditions. Using the equipment in harsh conditions, marine environment, on sharp edges, when exposed to high temperatures or aggressive substances, etc., can mean that the equipment must be withdrawn from use even after one use. Following each 12-month period of use, the device must be taken out of service for a scheduled maintenance inspection. Only the following people may perform the periodic inspections:
IN THE CASE OF PERSONAL PROTECTION EQUIPMENT (PPE): a competent person with knowledge and skills required to perform periodic inspections of personal protection equipment, the manufacturer or an entity designated by the manufacturer.
IN THE CASE OF HOISTING EQUIPMENT (equipment other than personal protective equipment): the person responsible for periodic inspections of hoisting equipment at the workplace. Depending on the type of work and working site environment, the equipment may need maintenance work more frequently than every 12 months. The maximum permitted service life of the device before the next inspection to be performed by the user shall be determined during the periodic inspection. The result of the periodic inspection should be included in the operating sheet. Regular scheduled maintenance significantly improves the equipment's life, as well as the safety of its users which depends on the performance and durability of the equipment. When carrying out a scheduled inspection, ensure that the markings on the equipment are checked for their legibility.

1.4.4. WARRANTY

The standard warranty period for ASB/LSB equipment, calculated from the date of sale, is 3 years. A chargeable extension of the warranty is possible.

1.4.5. MAINTENANCE/STORAGE/REPAIRS

If any faults are found during the inspection, the ASB/LSB device should be immediately decommissioned. The structure of the device may not be modified, repairs may not be performed and parts from the provided kit should not be replaced. During the use of the device, it should be protected against damage caused by mechanical, chemical and thermal factors. Do not use the device if it has any damaged or faulty elements. Dirty device should be cleaned with a wet cloth. Store the device indoors, away from moisture and heat sources.

1.4.6. DECOMMISSIONING

The device must be decommissioned immediately in the case of any doubts regarding its condition in which it can be safely used. Such device may not be reused until the manufacturer or its authorised entity has confirmed in writing that the equipment has been subjected to comprehensive testing.

1.4.7. TRANSPORT

The device should be transported in a packaging protecting it against damage or wetting, e.g. in bags made of impregnated textile or in steel/plastic/water-tight wooden boxes.

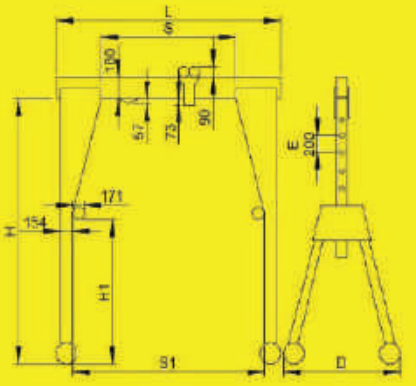
1.5. GENERAL PRECAUTIONS

- The ASB/LSB device should be installed according to the recommendations included in this user manual.
- The ASB/LSB device can be used in a temperature range of -20°C to +50°C.
- The maximum working load limit (WLL), the value of which is specified on the beam, must not be exceeded.
- The value of the working load limit (WLL), which is affixed to the beam, must be reduced to the RWLL for personal protection of personnel (when combined with an internal carriage) when lifting/lowering loads in accordance with Section 5.
- Loads may not be lifted/lowered during rescue operations – see Section 6.
- Each operation related to load handling should be planned thoroughly. The operator must also know the weight of the load to be lifted.
- Lock all wheel brakes before carrying out any load handling operation.
- Load handling equipment (e.g. hoists, chains) may only be connected to the hitching point of an external carriage.
- Loads must not be connected to the internal carriage. The internal carriage is for personal protection only.
- The operator must make sure that load handling accessories (e.g. winches, chains) are correctly attached and do not expose the operator or other people to danger.
- The ASB/LSB devices must not be moved under load.
- Never allow loads to swing.
- The beam must remain horizontal during all lifting operations.
- Avoid side loads. Loads should be lifted only if the carrier chain or working line are tensioned vertically between the load and the fixture point of the hoisting device.
- Do not lift or transport loads if anyone is present in the hazard area.
- Never stand or walk under suspended loads.
- Suspended loads should not be left unattended for longer periods of time.
- Before starting lowering the load, always make sure that no people stand or walk under the load.

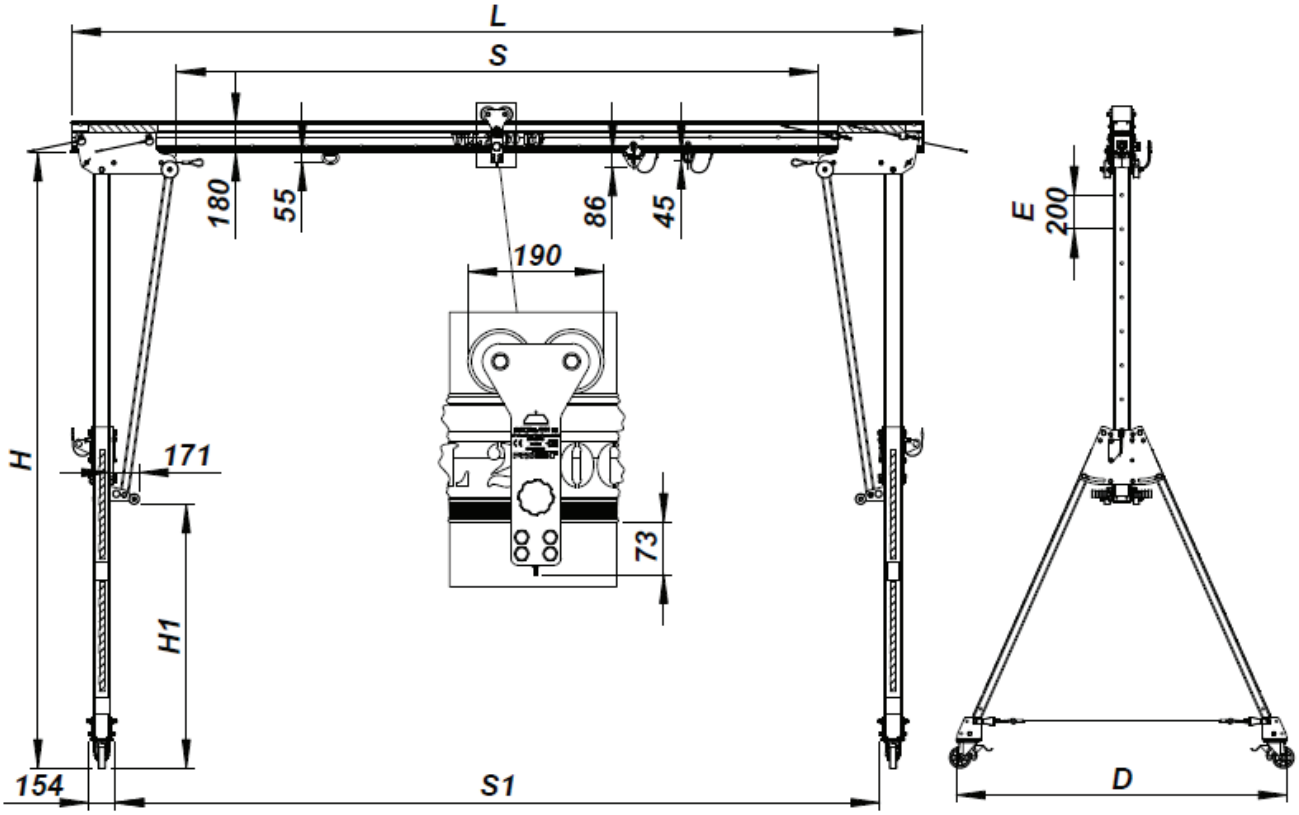
ASB TECHNICAL DATA TABLE

ASB – TABELA DANYCH TECHNICZNYCH

"L" DŁUGOŚĆ BELKI [mm]	WAGA BELKI [kg]	"S" ZAKRES ROBOCZY BELKI [mm]	"S1" ZAKRES ROBOCZY PODPÓR [mm]	A1 PODPORA		B1 PODPORA		C1 PODPORA		C2 PODPORA	
				WLL [T]	Waga suwnicy [kg]	WLL [T]	Waga suwnicy [kg]	WLL [T]	Waga suwnicy [kg]	WLL [T]	Waga suwnicy [kg]
2000	26,7	770	1496	3	122	3	148	3	204	1	242
3000	40,1	1770	2496	3	135	3	161	3	218	1	255
4000	53,4	2770	3496	3	148	3	174	3	231	1	269
5000	66,5	3770	4496	2,5	162	2,5	188	2,5	244	1	282
6000	80,1	4770	5496	2	175	2	201	2	258	1	295
7000	93,5	5770	6496	1,5	188	1,5	214	1,5	271	1	309
WAGA PODPORY [kg]				38,2		50,2		72,8		98,4	
"H" – WYSOKOŚĆ ROBOCZA [MM]				1594...2194		2207...3607		3230...5430		4230...6430	
"H1" – WYSOKOŚĆ POD ROLKĄ [MM]				34...634		141...1541		164...2364		164...2364	
"D" – ROZSTAW NÓG [MM]				1115		1928		2834		2834	
"E" – REGULACJA WYSOKOŚCI [MM]				200		200		200		200	



UWAGA !
NIE PRZESUWAĆ
SUWNICY POD OBCIĄŻENIEM !



PART NO.: ASBxxx-yy-zz

where:

xxx – beam length [cm] [200/300/400/500/600/700/800/900]

yy – support height option [A1/B1/C1/C2]

zz – wheel set type [W1/W2/W3/W4/W5/W6]

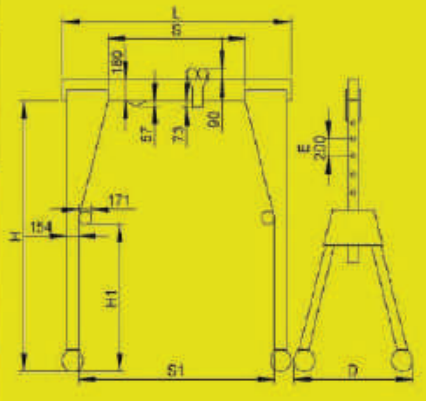
EXAMPLE: ASB500-B1-W2 – 5m beam with B1 support with 200 mm diameter galvanised steel wheels with solid rubber tyres.

*On special request, the WLL value for 2- and 3-metre beams used with A1 supports can be increased to 3.5 t.** Connected beams (connecting with a TRE200-002-000 connector).

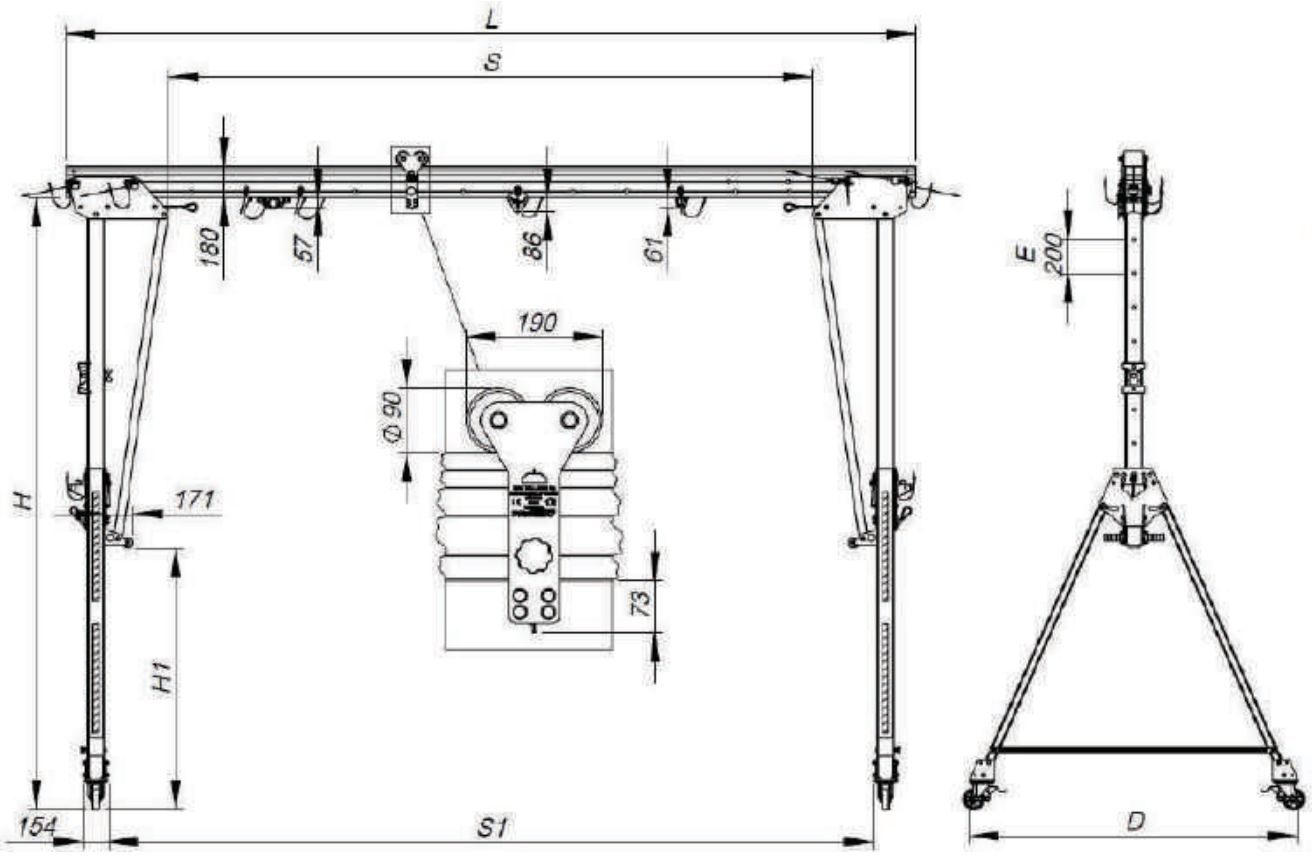
1.6. LSB TECHNICAL DATA TABLE

LSB – TABELA DANYCH TECHNICZNYCH

"L" DŁUGOŚĆ BELKI [mm]	WAGA BELKI [kg]	"S" ZAKRES ROBOCZY BELKI [mm]	"S1" ZAKRES ROBOCZY PODPÓR [mm]	E1 PODPORA		F1 PODPORA		G1 PODPORA		G2 PODPORA	
				WLL [T]	WAGA SUWNICY [kg]	WLL [T]	WAGA SUWNICY [kg]	WLL [T]	WAGA SUWNICY [kg]	WLL [T]	WAGA SUWNICY [kg]
2000	13,2	1496	770	2	122	1,75	148	1,75	204	0,5	242
3000	19,7	2496	1770	1,5	135	1,5	161	1,5	218	0,5	255
4000	26,3	3496	2770	1,25	148	1,25	174	1,25	231	0,5	269
5000	32,8	4496	3770	1	162	1	188	1	244	0,5	282
6000	39,4	5496	4770	0,75	175	0,75	201	0,75	258	0,5	295
7000	46	6496	5770	0,5	188	0,5	214	0,5	271	0,5	309
WAGA PODPORY [kg]				34		45		62		68,8	
"H" – WYSOKOŚĆ ROBOCZA [MM]				1594...2194		2207...3607		3230...5430		4230...6430	
"H1" – WYSOKOŚĆ POD ROLKĄ [MM]				34...634		141...1541		164...2364		164...2364	
"D" – ROZSTAW NÓG [MM]				1115		1928		2834		2834	
"E" – REGULACJA WYSOKOŚCI [MM]				200		200		200		200	



UWAGA !
NIE PRZESUWAĆ
SUWNICY POD OBCIĄŻENIEM



PART NO.: LSBxxx-yy-zz

where:

xxx – beam length [cm] [200/300/400/500/600/700]

yy – support height option [E1/F1/G1/G2]

zz – wheel set type [W1/W2/W3/W4/W5/W6]

EXAMPLE: LSB500-F1-W1 – 5-metre beam with F1 support with standard Ø160 mm galvanised steel wheels with solid rubber tyres.

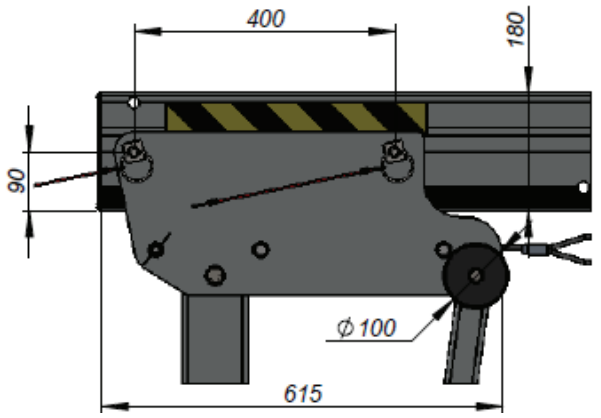
*On special request, the WLL value for a 2 m beam used with E1 supports can be increased to 2 t.

1.7. BASIC TYPES OF ASB/LSB SUPPORT

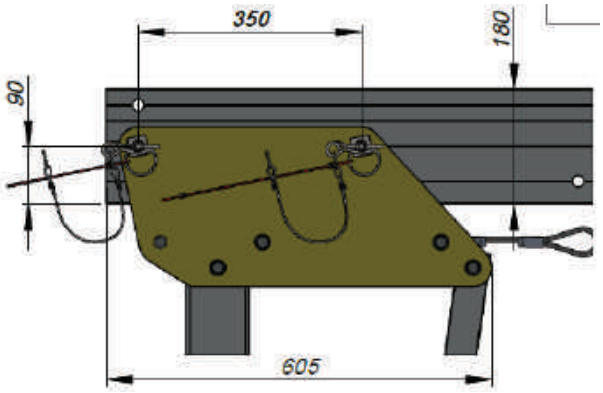
NOTE: THE BOTTOM SPACING FOR THE BELT-POINT CONNECTION IS DIFFERENT FOR ASB (400 mm) AND LSB (350 mm).

ASB/LSB – REQUIRED MOUNTING AREA [m × m]								ONLY ASB COMBINED BEAMS	
		BEAM [m]							
		2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m
SUPPORT	A1/E1	1.5 × 6.4	1.5 × 7.4	1.5 × 8.4	1.5 × 9.4	1.5 × 10.4	1.5 × 11.4	1.5 × 12.4	1.5 × 13.4
	B1/F1	2.5 × 7.5	2.5 × 8.5	2.5 × 9.5	2.5 × 10.5	2.5 × 11.5	2.5 × 12.5	2.5 × 13.5	2.5 × 14.5
	C1/G1	3.5 × 9.7	3.5 × 10.7	3.5 × 11.7	3.5 × 12.7	3.5 × 13.7	3.5 × 14.7	3.5 × 15.7	3.5 × 16.7
	C2/G2	3.5 × 11.7	3.5 × 12.7	3.5 × 13.7	3.5 × 14.7	3.5 × 15.7	3.5 × 16.7	3.5 × 17.7	3.5 × 18.7

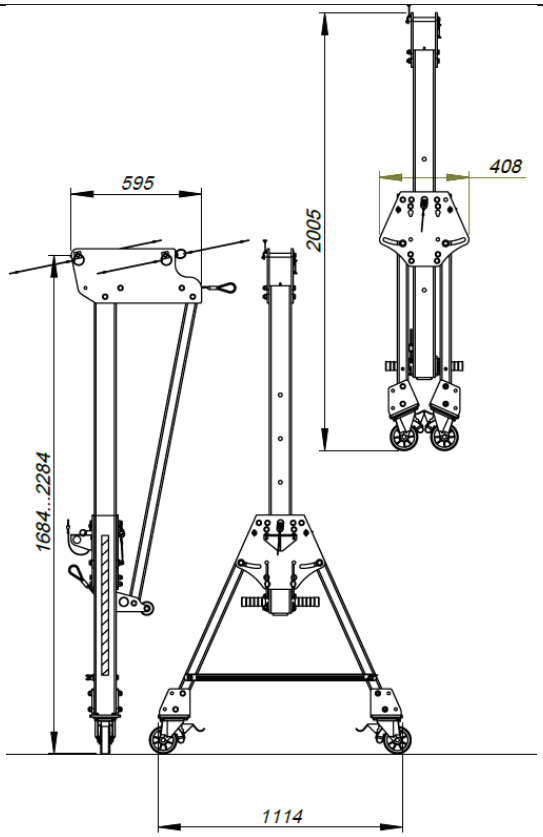
ASB SIDE PANEL



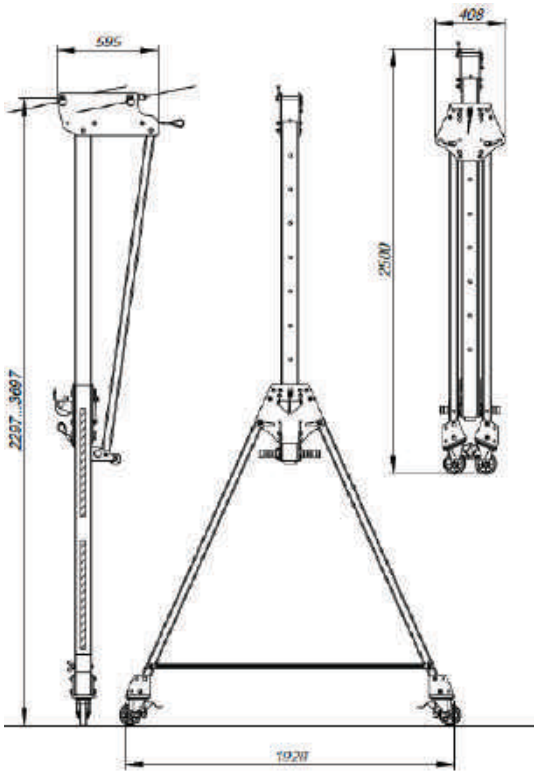
LSB SIDE PANEL

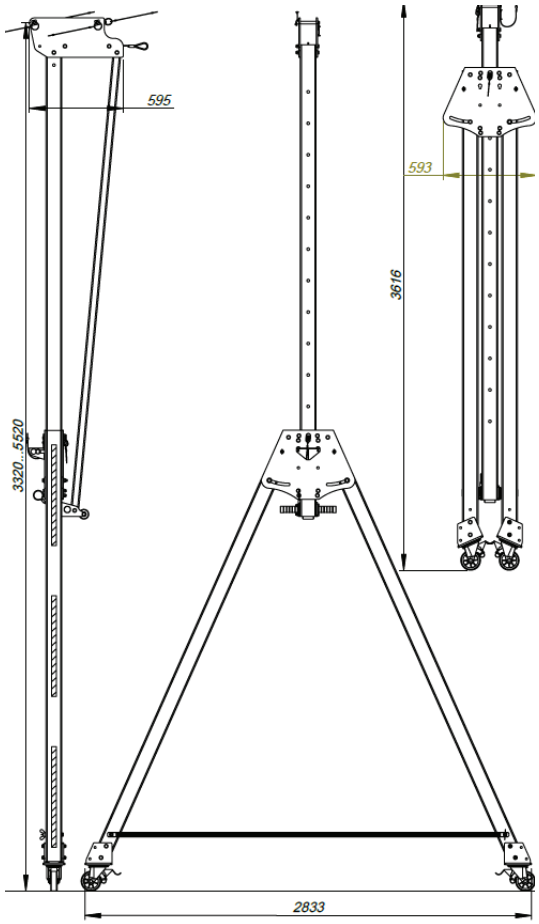
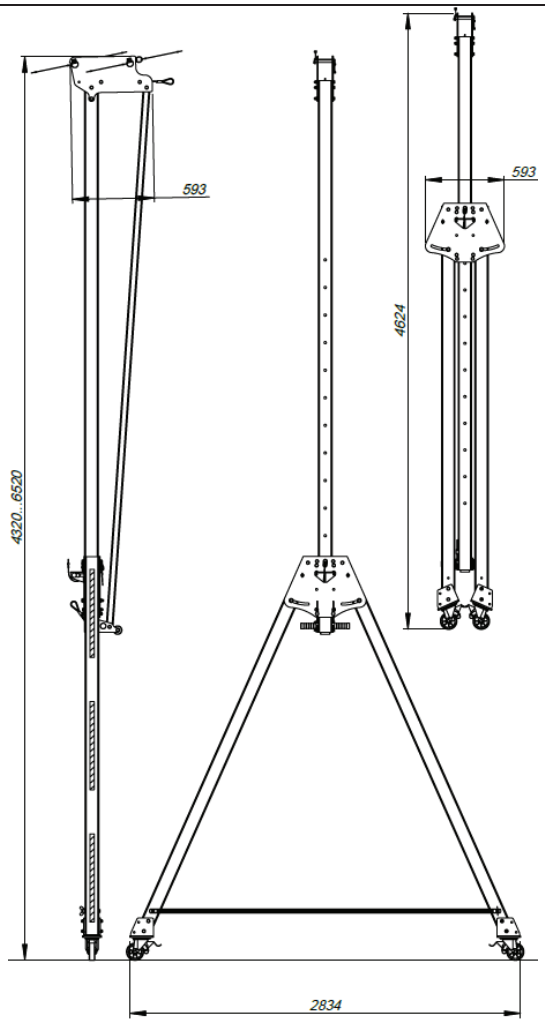


LOW SUPPORTS
ASB “A1”, weight: 38.2 kg
LSB “E1”, weight: 34.0 kg



MEDIUM SUPPORTS
ASB “B1”, weight: 50.2 kg
LSB “F1”, weight: 45.0 kg



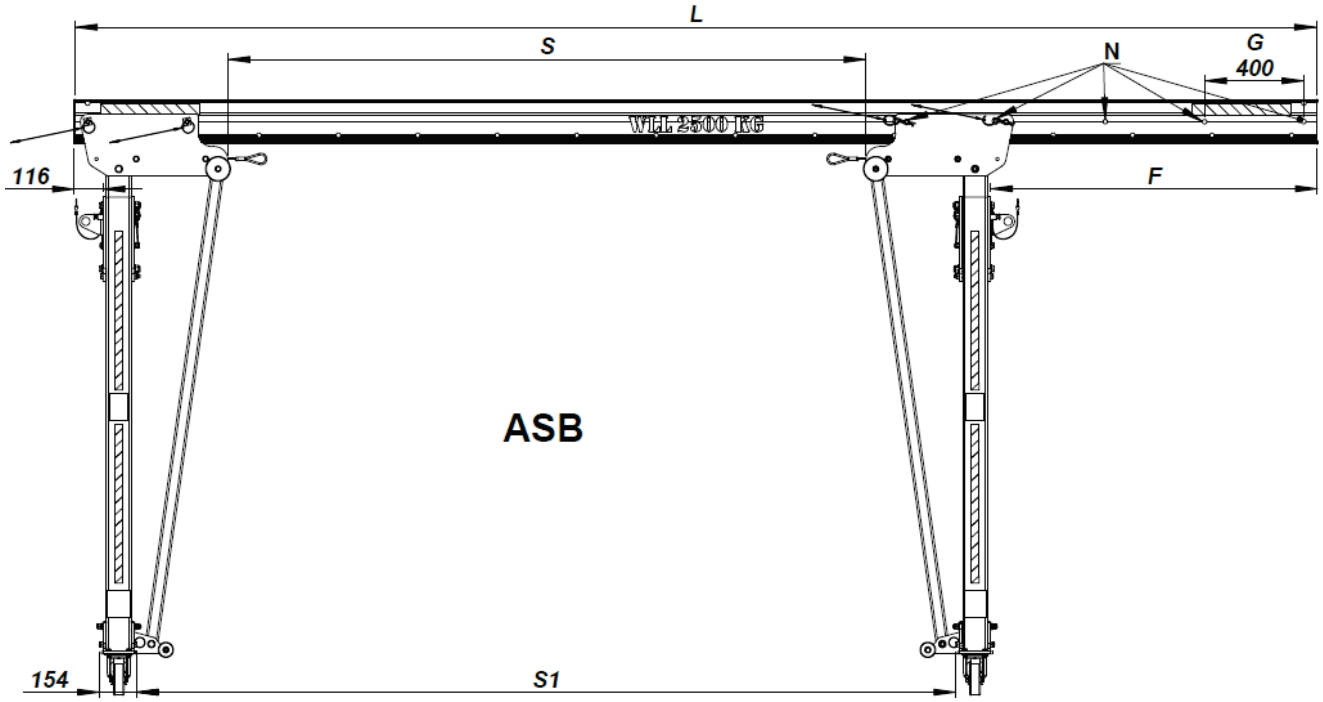
HIGH SUPPORTS ASB “C1”, weight: 72.8 kg LSB “G1”, weight: 62.0 kg	**HIGH SUPPORTS – SPECIAL** ASB “C2”, weight: 98.4 kg LSB “G2”, weight: 68.8 kg
	

1.8. ADJUSTMENT OF THE WORKING RANGE OF THE ASB SUPPORT

One ASB device support can be installed on the beam in different positions. The “G” adjustment increment for ASB is always 400 mm. The number of increments depends on the length of the beam.
N – available support positions.

NOTE This configuration is not intended for combined ASB beams (8- and 9-metre beams).

“L” Beam length [mm]	“S” Working range S [mm]	“S1” Operating range S1 [mm]	“F” Outreach [mm]	“N” Number of items
2000	770	1496	116	1
3000	970/1370/1770	1696/2096/2496	116/516/916	3
4000	1970/2370/2770	2696/3096/3496	116/516/916	3
5000	2570/2970/3370/3770	3296/3696/4096/4496	116/516/916/1316	4
6000	3570/3970/4370/4770	4296/4696/5096/5496	116/516/916/1316	4
7000	4670/4970/5370/5770	5296/5696/6096/6496	116/516/916/1316	4



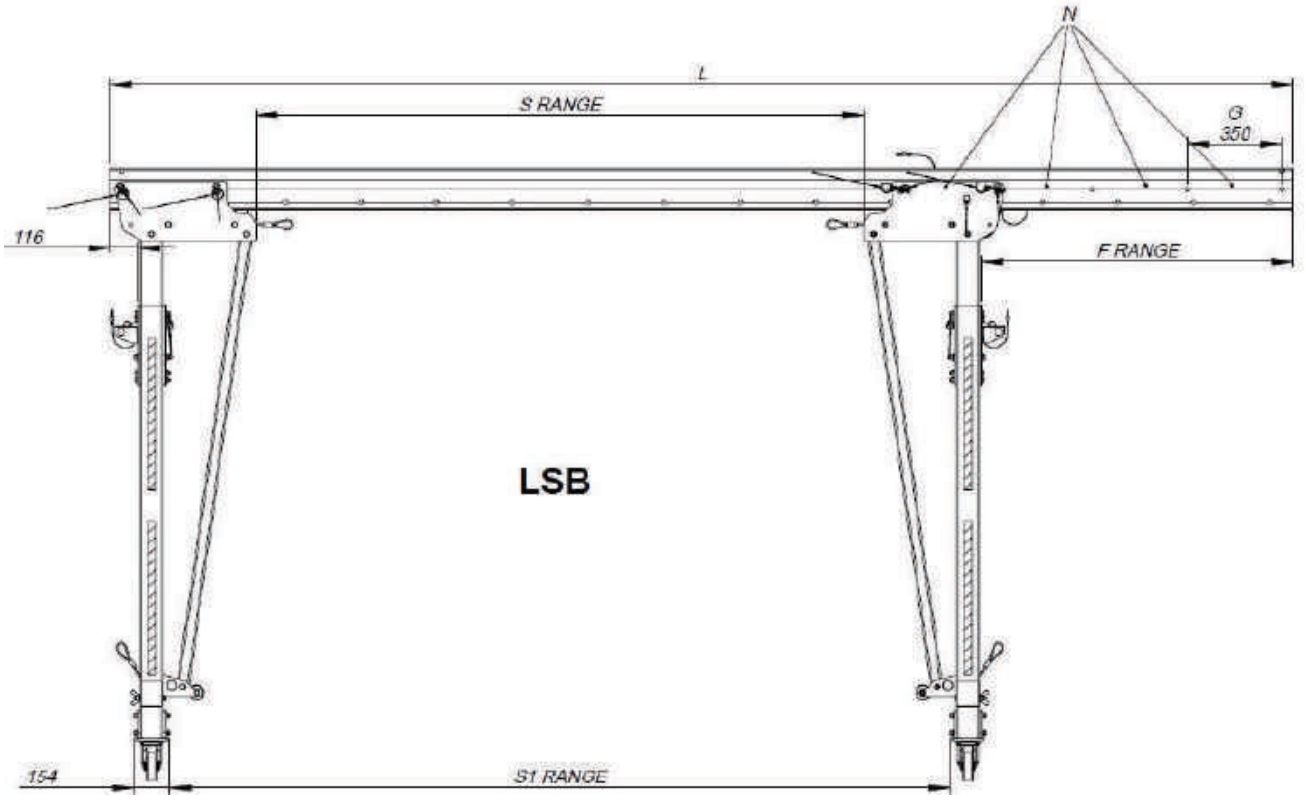
	CAUTION! **working range adjustment does not apply to ASB combined beams.**

1.9. ADJUSTMENT OF THE WORKING RANGE OF THE LSB SUPPORT

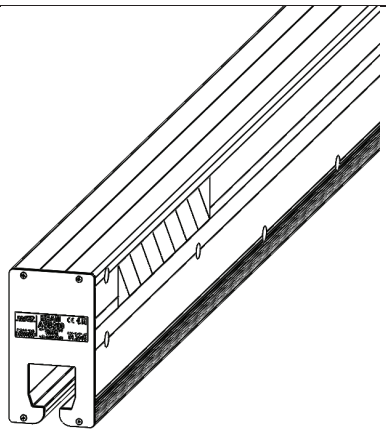
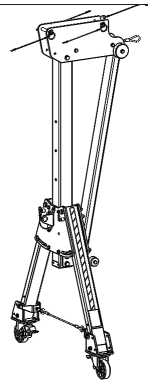
One LSB device support can be installed on the beam in different positions. The “G” adjustment increment for LSB is always 350 mm. The number of increments depends on the length of the beam.

N – available support positions (frame)

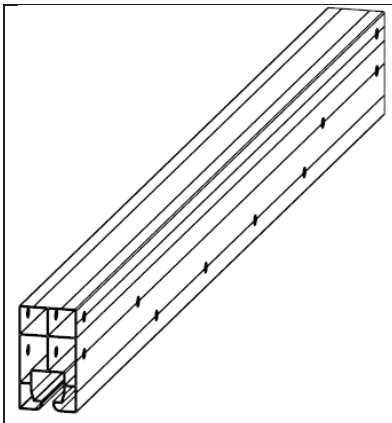
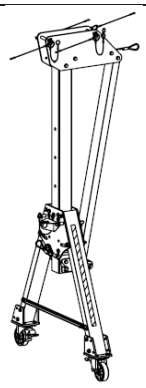
“L” Beam length [mm]	“S” Working range S [mm]	“S1” Operating range S1 [mm]	“F” Outreach [mm]	“N” Number of items
2000	770	1496	116	1
3000	1070/1420/1770	1796/2196/2496	116/466/816	3
4000	2070/2420/2770	2796/3196/3496	116/466/816	3
5000	2720/3070/3420/3770	3446/3796/4146/4496	116/466/816/1166	4
6000	3720/4070/4420/4770	4446/4796/5146/5496	116/466/816/1166	4
7000	4720/5070/5420/5770	5446/5796/6146/6496	116/466/816/1166	4



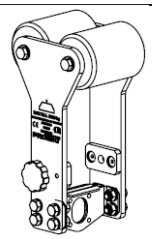
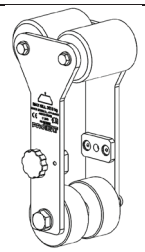
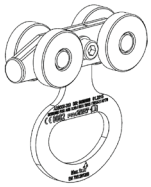
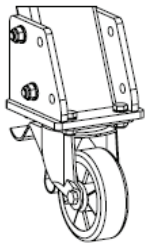
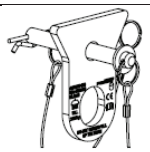
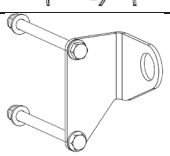
1.10. BASIC EQUIPMENT OF THE ASB

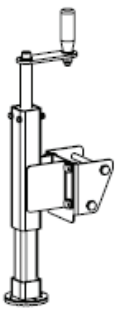
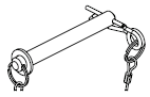
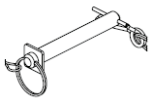
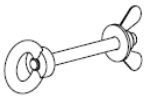
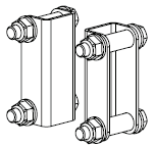
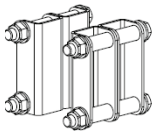
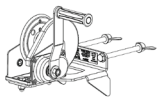
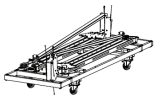
	**ASB BEAM** **part no. ASBxxx-001 (where "xxx" – length of beam in cm]** Made of aluminium alloy with inner rail (for inner carriage). It can be used with outdoor and indoor carriages. Beam lengths available (one section): **2/3/4/5/6/7 m**. Available beam lengths (combined version): **8/9 m**. Details are shown in the ASB Technical Data Table.
	**ASB SUPPORT** **FA1 – part no. ASB000-FA1-000** **FB1 – part no. ASB000-FB1-000** **FC1 – part no. ASB000-FC1-000** **FC2 – part no. ASB000-FC2-000** Made of aluminium alloy. Various height options. Height adjustment in 200 mm increments. Foldable design. Two identical supports should be used per beam. Fitted with three pins with a cotter pin. For details, see the ASB Technical Data Table and the table of available ASB supports.

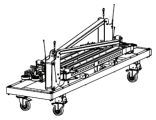
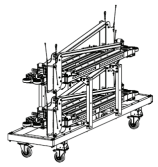
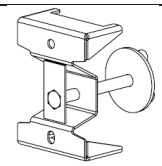
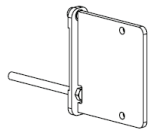
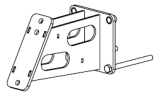
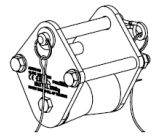
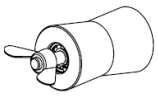
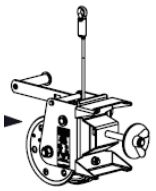
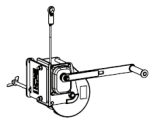
1.11. BASIC EQUIPMENT OF THE LSB

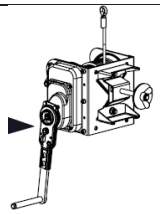
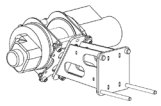
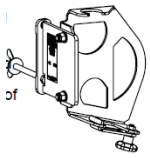
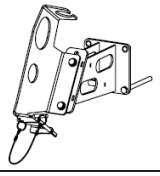
	**LSB BEAM** **part no. LSBxxx-001 (where "xxx" – length of beam in cm]** Made of aluminium alloy with inner rail (for inner carriage). It can be used with outdoor and indoor carriages. Available beam length: **2/3/4/5/6/7 m**. Details are shown in the ASB Technical Data Table. **LSB beams cannot be combined!**
	**LSB SUPPORT** **E1 – part no. LSB500-450-1** **F1 – part no. LSB500-100-1** **G1 – part no. LSB500-500-1** **G2 – part no. LSB500-500-2** Made of aluminium alloy. Various height options. Height adjustment in 200 mm increments. Foldable design. Two identical supports should be used per beam. Fitted with three pins with a cotter pin. For details, see the ASB Technical Data Table and the table of available LSB supports.

1.12. ASB/LSB ACCESSORIES

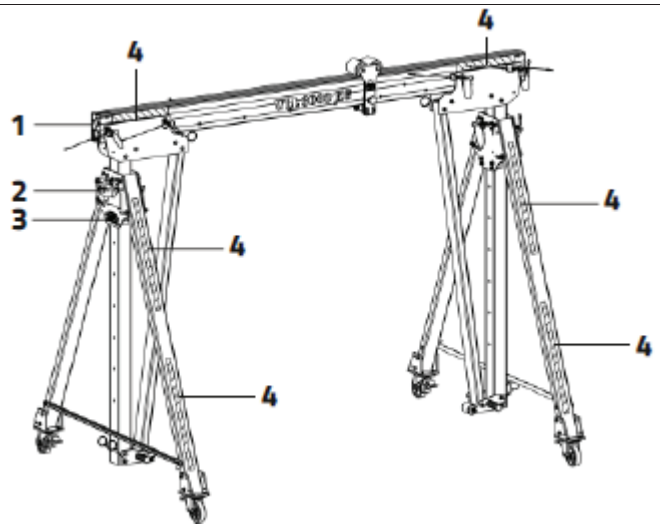
	**EXTERNAL CARRIAGE – part no. ASB500-200** Made of aluminium alloy, stainless steel and polyamide parts. The carriage can be locked in any position along the beam using a knob. **The external carriage is designed for load handling only.**
	**EXTERNAL carriage CART – part no. ASB500-270-000** Made of aluminium alloy, stainless steel and polyamide parts. The carriage can be locked in any position along the beam using a knob. The carriage is fitted with a removable pin to allow the carriage to be mounted on the unfolded unit and allows larger hoist hooks to be fitted. **The external carriage is designed for load handling only.**
	**INTERNAL CARRIAGE – part no. ASB500-280** Made of galvanised steel and stainless steel. Space saving. The hitching eye is only 55 mm below the beam. Position locking by means of two pins with a cotter pin. **The internal carriage is designed exclusively for the protection of people.** One carriage can be used for a maximum of one person. ASB – maximum of 5 carriages on one ASB beam LSB – maximum of 3 carriages on one LSB beam.
	**WHEEL SET (4 pcs.)** The support can be fitted with the following types of **braked swivel castors**, depending on the place of use: • **W1, part no. ASB100-010** – galvanised steel wheel ⌀160 mm with hard treaded rubber – for general use (standard). • **W2, part no. ASB100-020** – galvanised steel wheel ⌀200 mm with hard treaded rubber – for use on any surface. • **W3, part no. ASB100-030** – aluminium wheel ⌀160 mm with polyurethane tread – for use in clean rooms/production halls. • **W4, part no. ASB100-040** – cast iron wheel ⌀200 mm with polyurethane tread – for use in clean rooms/production halls. • **W5, part no. ASB100-050** – aluminium wheel ⌀200 mm with polyurethane tread – for use in clean rooms/production halls. • **W6, part no. ASB100-060** – cast iron wheel ⌀250 mm with polyurethane tread – for use in clean rooms/production halls. **Position lock 4 × 90**. • **W7, part no. ASB100-060** – cast iron tandem wheel (double) ⌀250 mm with polyurethane tread – for use in clean rooms/production halls. **Position lock 4 × 90**. • **W8, part no. ASB100-060** – tandem wheel (double) ⌀460 mm with off-road tyre. **Position lock 4 × 90**. A complete ASB unit must be fitted with four identical wheels. An additional set of wheel supports is recommended. **For W6/W7/W8 wheels, use the HSB000-A10-100 connectors.**
	**HANDLE FOR LIFTING THE SUPPORT – part no. ASB500-360** Made of aluminium alloy/galvanised steel. Used when installing a device to raise and lower supports using a chain hoist. The chain hoist is connected to the hitching eye. Must only be used with B1/C1/F1/G1 supports.
	**CHAIN HOIST HANDLE – part. no. ASB000-A01-150** Made of stainless steel. Provides safe height adjustment of the vertical support profile when installing the unit on site. One handle is designed for one support. The bracket is installed on the support by default.

	**WHEEL SUPPORT – part no. ASB500-300** Made of galvanised and powder-coated steel. Provides additional stabilisation of the unit on uneven ground and stability during operation. Fitted with locking screws with wing nuts. The complete ASB/LSB unit should be fitted with four wheel supports.
	**16 mm DIA. PIN WITH VALVE – part no. ASB500-130** Made of galvanised steel. For use in the following applications: • locking of the vertical part of the support (one element per support), • beam locking between the front support plates (two elements per support), **ASB (A1, B1)/LSB (E1, F1, G1)** • locking the position of the inner carriage on the beam (two elements per inner carriage), • locking of the rope sheave for the beam in the beam holes (two elements per rope sheave for the beam).
	**17.5 mm dia. pin with valve – part no. ASB500-560** Made of galvanised steel. For use in the following applications: beam locking between the front support plates of the **ASB-C1/C2** (two elements per support).
	**REPLACEMENT FOR REMOVAL OF VERTICAL SUPPORT PROFILE part no. ASB500-370** Made of stainless steel. Used to easily adjust the height of the beam (vertical support profile) when using a chain hoist. For use with support **C1/C2/G1/G2** when using a chain hoist.
	**WHEEL SUPPORT DISTANCE 40 mm – part no. ASB500-813** Made of galvanised and powder-coated steel. Provides an additional 40 mm distance between the wheel and the wheel bracket. **Recommended for W1 wheels (160 mm diameter).**
	**WHEEL SUPPORT DISTANCE 80 mm – part no. ASB500-814** Made of galvanised and powder-coated steel. Provides an additional 80 mm distance between the wheel and the wheel bracket. **Recommended for W2 wheels (200 mm diameter).**
	**Lift device for support – part no. ASB000-A03-000** Made of galvanised, powder-coated steel. Equipped with a 6-metre strap to fit any ASB/LSB device support. For use instead of chain hoist handle (ASB000-A01-150) and hitch (ASB500-370) and chain hoist. **Ensures safe and rapid raising and lowering of the vertical support profile (beam height adjustment).**
	**BEAM TRANSPORTER – part no. ASB500-600** Made of aluminium alloy/galvanised steel. It is used to easily **transport the beam over long distances**. Solid rubber wheels ⌀200 mm. Fits ASB and LSB beams.
	**WIDE TRANSPORT CARRIAGE: 1.4 m – part no. HSB000-A09-0xx** Made of aluminium alloy profiles. Equipped with wheels for easy movement. Suitable for personal transport/storage of frames and similar structures. **HSB000-A09-010** [3.1 m × 1.4 m] **(max. 4 B/F supports**)] **HSB000-A09-060** [3.5 m × 1.4 m] **(max. 2 C1/G1 supports**)] **HSB000-A09-070** [4.0m × 1.4 m] **(max. 2 C2/G2 supports**)]

	**NARROW TRANSPORT CARRIAGE: 0.8 m – part no. HSB000-A09-1xx** Made of aluminium alloy profiles. Equipped with wheels for easy movement. Suitable for personal transport/storage of frames and similar structures. **HSB000-A09-110** [3.1 m × 0.8 m] **(max. 2 B/F supports**)] **HSB000-A09-160** [3.5 m × 0.8 m] **(max. 1 C1/G1 supports**)] **HSB000-A09-170** [4.0 m × 0.8 m] **(max. 1 C2/G2 supports**)]
	**NARROW TRANSPORT CARRIAGE: 0.9 m – part no. HSB000-A09-1xx** **SECOND LEVEL (part no. HSB000-A09-180)** Made of aluminium alloy profiles. Fitted with wheels for ease of movement and featuring a second level for increased storage space. Suitable for personal transport/storage of frames and similar structures. **HSB000-A09-110 + 2 × HSB000-A09-180** [3.1 m × 0.9 m] **(max. 4 B/F supports**)] **HSB000-A09-160 + 2 × HSB000-A09-180** [3.5 m × 0.9 m]**(max. 2 C1/G1 supports**)] **HSB000-A09-170 + 2 × HSB000-A09-180** [4.0 m × 0.9 m]**(max. 2 C2/G2 supports**)]
	**WINCH HANDLE RUP50x-CT – part no. ASB500-190** Made of galvanised steel. Fitted with a wing nut for quick installation. Allows the installation of **RUP50x-CT** lifting devices on the vertical part of the support. **Fits all types of supports (A/B/C/E/F/G).**
	**WINCH HANDLE RUP502-DT – part no. ASB500-610** Made of galvanised steel. Fitted with a wing nut for quick installation. Allows the installation of the **RUP502-DT** lifting device on the side support plate. **Fits A/B/E/F supports.**
	**WINCH SUPPORT RUP503-DT/RUP504-DT – part no. ASB500-190** Made of galvanised steel. Fitted with a wing nuts for quick installation. Allows the installation of the lifting device **RUP503-DT/RUP504-DT** on the side support plate. **Fits A/B/E/F supports.**
	**BAR ROLLER – part no. ASB500-240** Made of reinforced aluminium alloy, stainless steel and polyamide parts. Provides guidance for the working cable when using RUP 50x-CT/DT lifting devices. Installed on the beam using pins with a cotter pin. Also used with CRW equipment.
	**ROLLER FOR SUPPORT – part. no.: ASB500-180** Made of polyamide and galvanised steel. Provides guidance for the working rope when using RUP 50x-CT/DT lifting devices. Installed on the support with cotter pins. Installed between the front support plates. Also used with CRW equipment.
	**Winch with brake – part no. RUP502-CT** **WLL: 500 kg/rope length: 25 m.** Made of galvanised and powder-coated steel. **Mounted on the vertical profile of all types of supports.**
	**Winch with brake – part no. RUP502-DT** **WLL: 500 kg/rope length: 25 m.** Made of galvanised and powder-coated steel. **Mounted on the side plate of the low (A/E) and medium (B/F) support.**
	**Winch with brake – part no. RUP503-DT** **WLL: 1000kg/rope length: 50m** Made of galvanised and powder-coated steel. **Mounted on the side plate of the low (A/E) and medium (B/F) support.**

	**Winch with brake – part no. RUP503-CT** **WLL: 1000kg/rope length: 50m** Made of galvanised and powder-coated steel. **Mounted on the vertical profile of all types of supports.**
	**ELECTRIC WINCH – part no. RUP504-DT** **WLL: 500 kg/rope length: 30m** Made of galvanised and powder-coated steel. **Mounted on the vertical profile of all types of supports.**
	**DEVICE HOLDER CRW200 – part no. ASB500-570** Made of galvanised and powder-coated steel. **Mounted on the side plate of the support (frame).**
	**DEVICE HOLDER CRW300 – part no. ASB500-580** Made of galvanised and powder-coated steel. **Mounted on the side plate of the support (frame).**

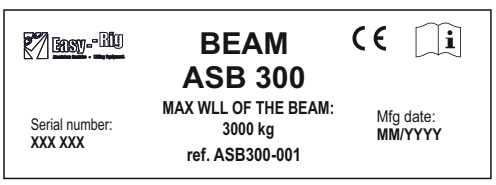
1.13. MARKING OF THE ASB DEVICE



LOCATION OF MARKINGS
1. BEAM MARK
2. LOAD TABLE WLL
3. FRAME FEATURE
4. WARNING TAPE

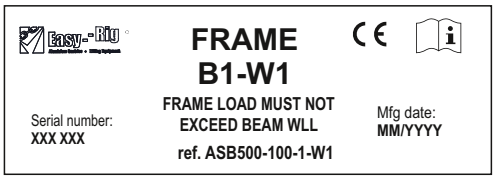
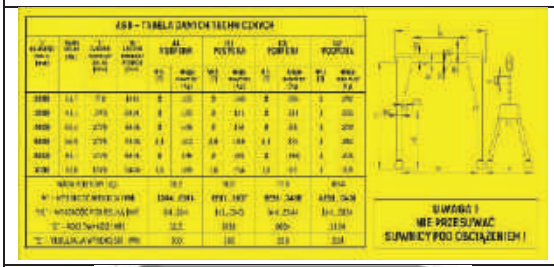
LABEL INDICATING THE DATE OF THE NEXT INSPECTION
Month and year of the next periodic manufacturer inspection. Do not use the device past this date. Note: Before the first use, note the date of the next inspection (date of first use + 12 months, e,g. if the device was first released on 01/2019 – mark the date as 01/2020). The label with the next inspection date should be placed next to the frame mark.

1.13.1. ASB BEAM MARKING

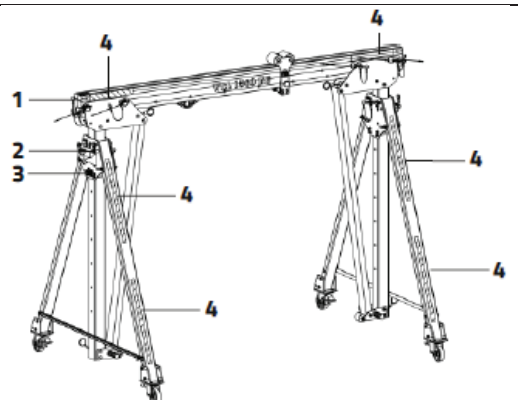


The beam feature is located on the side cover of the beam:
a) Designation of the manufacturer or distributor
b) Serial number
c) Device type.
d) Working load limit
e) Catalogue number.
f) CE mark
g) Please note: Read the instruction manual
h) Month and year of manufacture.

1.13.2. MARKING OF ASB SUPPORT

	The support feature is located on the side plate connecting the vertical profile to the legs and on the individual legs. Mark contents: a) Designation of the manufacturer or distributor b) Serial number c) Device type. d) Working load limit e) Catalogue number. f) CE mark g) Please note: Read the instruction manual h) Month and year of manufacture.
	Technical data table with dimensions, component weights and possible loads (WLL).
	TUV NORD certification mark “Proven product” Certificate no. 0000087165 The certificate relates to the ASB device.
	Label indicating that wheel brakes must be locked before lifting the load.

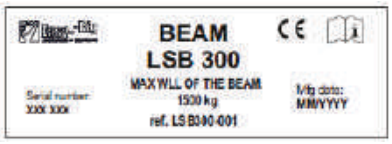
1.14. LSB DEVICE MARKING



LOCATION OF MARKINGS
1. BEAM MARK
2. LOAD TABLE WLL
3. FRAME FEATURE
4. WARNING TAPE

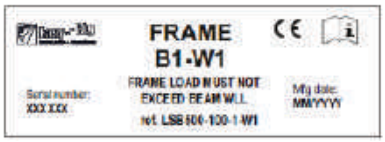
LABEL INDICATING THE DATE OF THE NEXT INSPECTION
Month and year of the next periodic manufacturer inspection. Do not use the device past this date. Note: Before the first use, note the date of the next inspection (date of first use + 12 months, e,g. if the device was first released on 01/2019 – mark the date as 01/2020). The label with the next inspection date should be placed next to the frame mark.

1.14.1. LSB BEAM MARKING

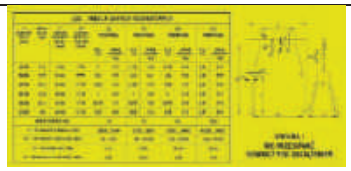


The beam feature is located at the upper end of the beam. Mark contents:
a) Designation of the manufacturer or distributor
b) Serial number
c) Device type.
d) Working load limit
e) Catalogue number.
f) CE mark
g) Please note: Read the instruction manual
Month and year of manufacture.

1.14.2. LSB SUPPORT MARKING



The support feature is located on the side plate connecting the vertical profile to the legs and on the individual legs.
Mark contents:
h) Designation of the manufacturer or distributor
i) Serial number
j) Device type.
k) Working load limit
l) Catalogue number.
m) CE mark
n) Please note: Read the instruction manual
o) Month and year of manufacture.



Technical data table with dimensions, component weights and possible loads (WLL).

Label indicating that wheel brakes must be locked before lifting the load.

1.15. ASB COMBINED BEAM

Designed for use with ASB supports and ASB beams only.

part no. ASB800-001 – 8-metre

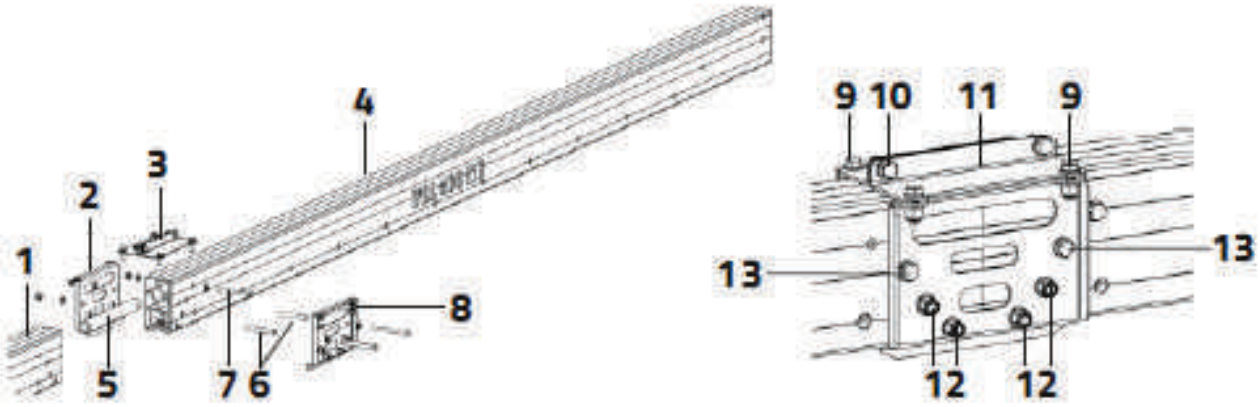
part no. ASB900-001 – 9-metre

It consists of two sections of ASB beams made of reinforced aluminium alloy. It can be used with external and internal carriages (the passability of the internal carriage is preserved, the external carriage does not pass through the connection point). The two parts of the beam are connected to each other using the TRE200-002-000 connector. The TRE200-002-000 connector is made of galvanised and powder-coated steel.

Available length of the combined beam: 8/9 m.

WLL value for combined beams (marked on each beam section): 500 kg.

Maximum number of simultaneous beam users: max. 2 people.



INSTALLATION PROCEDURE:

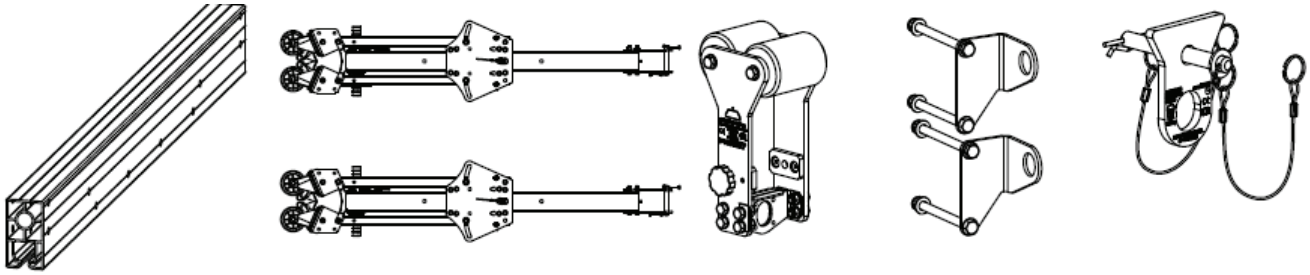
1. Install the connecting pin ASB500-817 in the short section of the beam using an M12x120-8.8 bolt and self-locking nut.
2. Fit the two ends of the beams into the supports.
3. Lift the two ends of the beam and connect them using the connecting pin ASB500-817.
4. Fit connector assembly TRE200-002-000 (the locating pins on the side plates should be placed in the oval sockets at the end of both beams).
5. Insert the two stainless steel bushings into the holes and screw together using two M12x130-8.8 bolts and self-locking nuts.
6. Tighten the 4 side screws and then the 2 top screws.

2. SECTION 2 – DEVICE INSTALLATION

Installation of the ASB/LSB unit should be carried out by at least two people wearing safety helmets, footwear and work gloves. **NO TOOLS REQUIRED FOR INSTALLATION!**

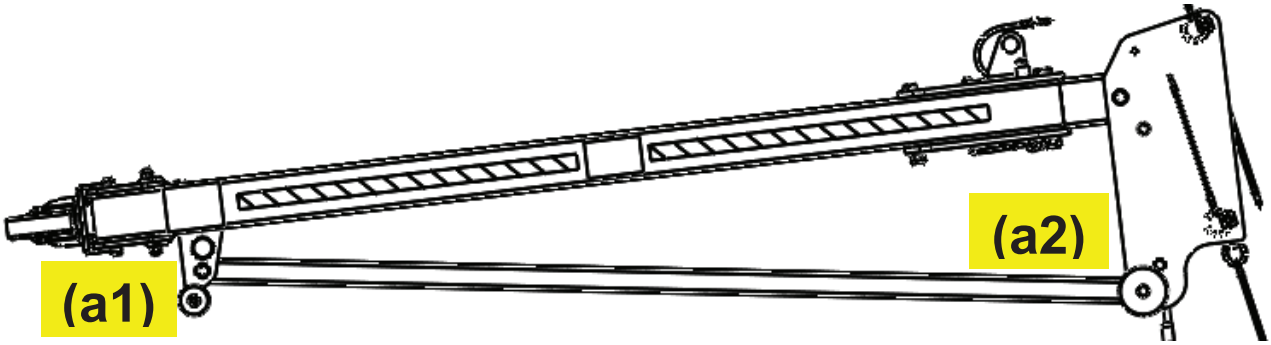
The basic equipment of ASB/LSB equipment includes:

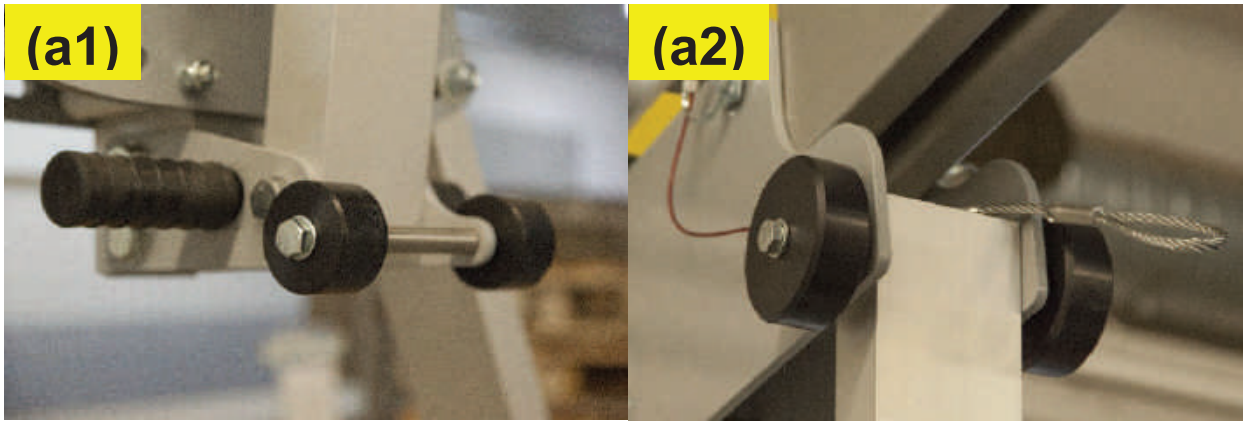
1 × BEAM, 2 × SUPPORT WITH SELECTED WHEELS Wx, 1 × EXTERNAL CARRIAGE, 2 × LOADING HANDLE, 1 × SUPPORT HOLDER



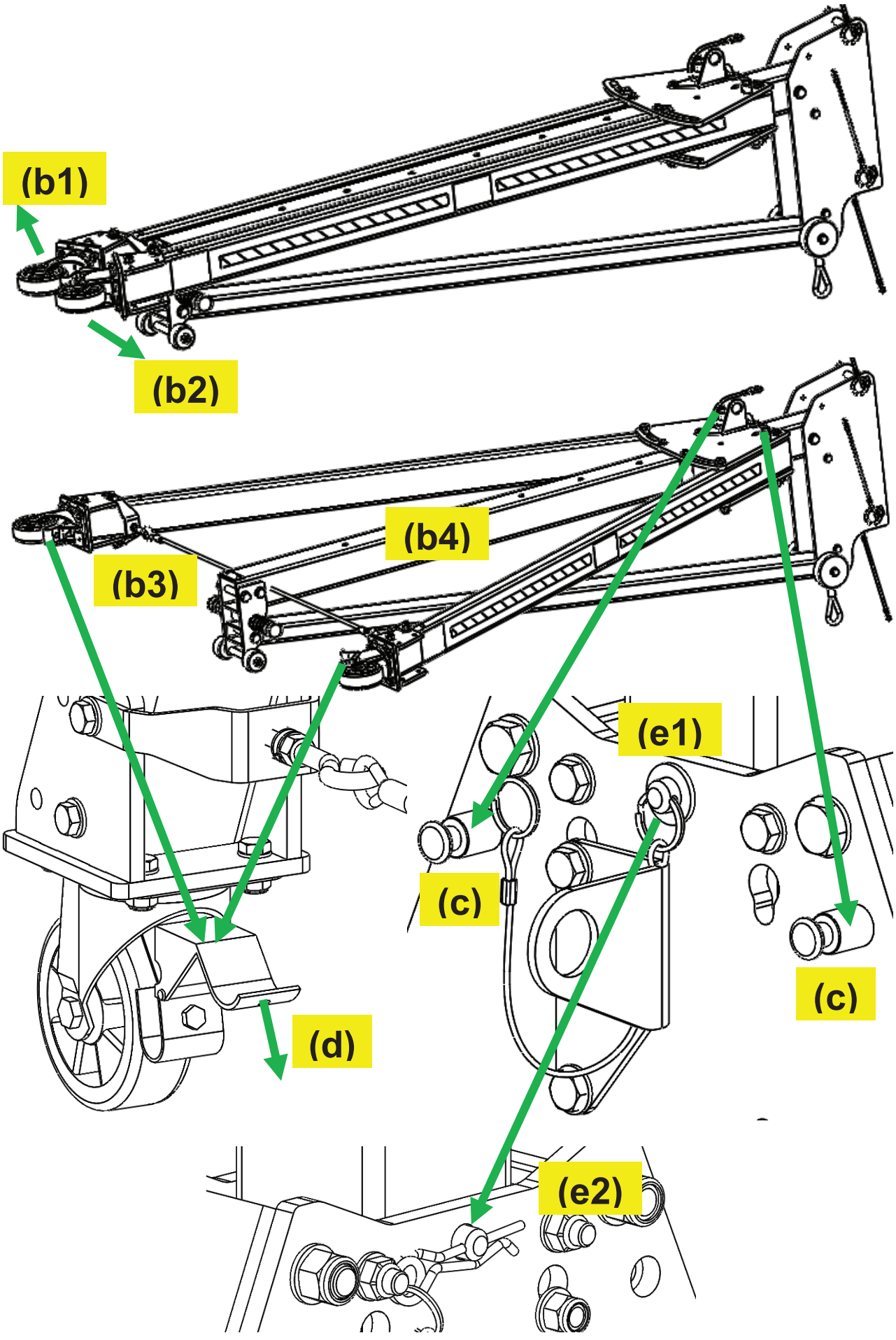
2.1. PREPARATION OF SUPPORTS:

- The supports can be easily transported thanks to the rollers (a1, a2) installed along the brace.





- Spread both legs (b1, b2). The legs are permanently connected by a steel rope (b3), hidden inside the vertical profile of the support (b4).
- When fully opened, the legs will be automatically locked with the pins (c). To close the leg, pull out the pin and, holding it, close the leg.
- Lock the wheel brakes (d) with your foot in your work shoes only. DO NOT BLOCK BY HAND!
- Check that the pin (e1) with pin (e2) has been correctly installed in the support. For easy installation of the unit, lock the vertical part of the support in the lowest possible position (e3).
-

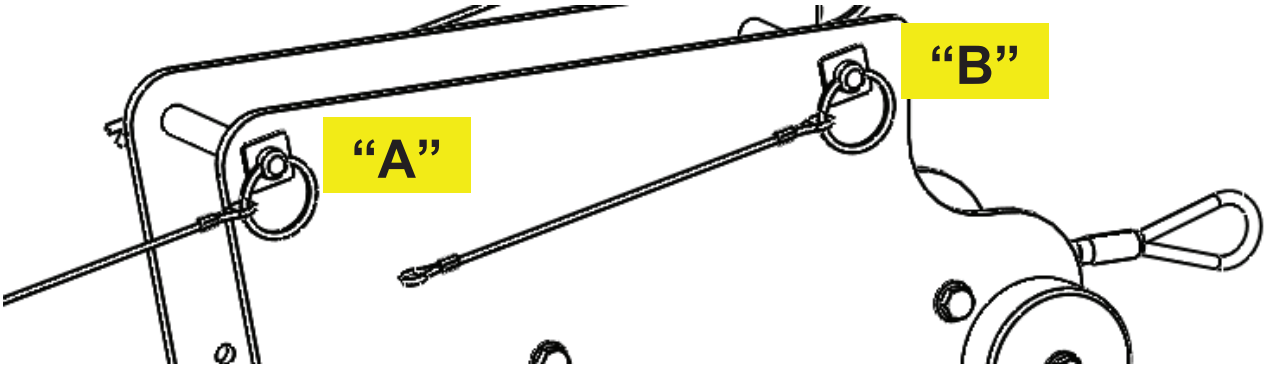

(b1)
(b2)
(b3)
(b4)
(c)
(c)
(d)
(e1)
(e2)

2.2. BEAM INSTALLATION

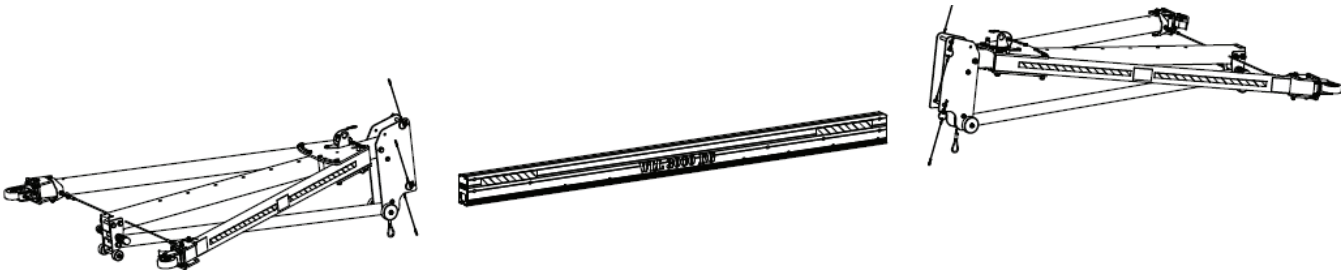
- The support has two pins with a cotter pin (“A” and “B”) for beam installation.

1. PIN “A” WITH A COTTER PIN
2. PIN “B” WITH A COTTER PIN

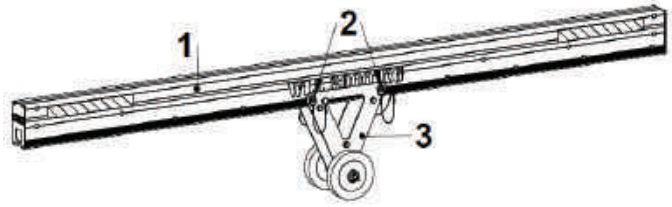
- Remove both pins “A” and “B” with the pin.



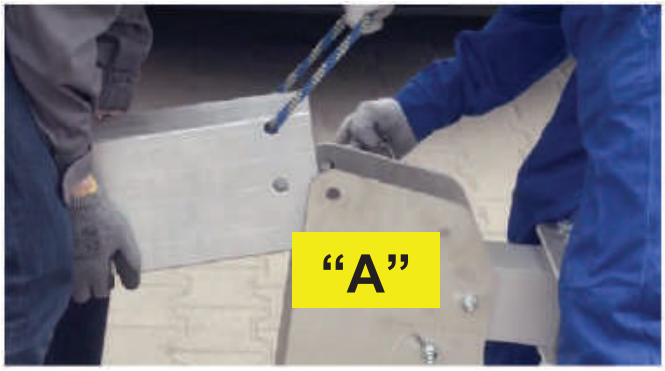
- Position two supports opposite each other and place a beam between them. Carry out operations on a hardened and level surface.

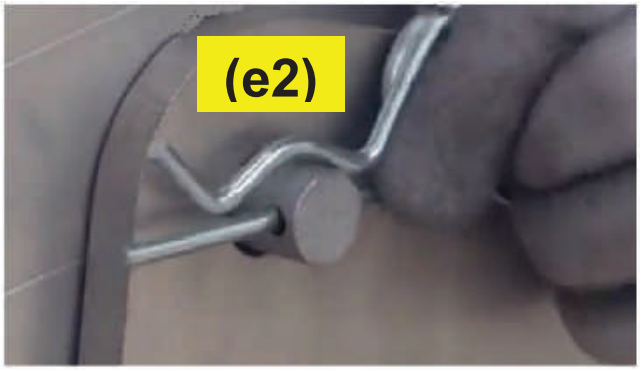


- The ASB beam can be easily transported using the ASB500-600 beam transporter, which can be installed on the beam using two pins with a pin.

	1. ASB/LSB beam 2. Pins with pin 3. ASB500-600 beam transporter

- Connect one end of the beam to the support using pin “A”. Secure pin with cotter pin (e2)!



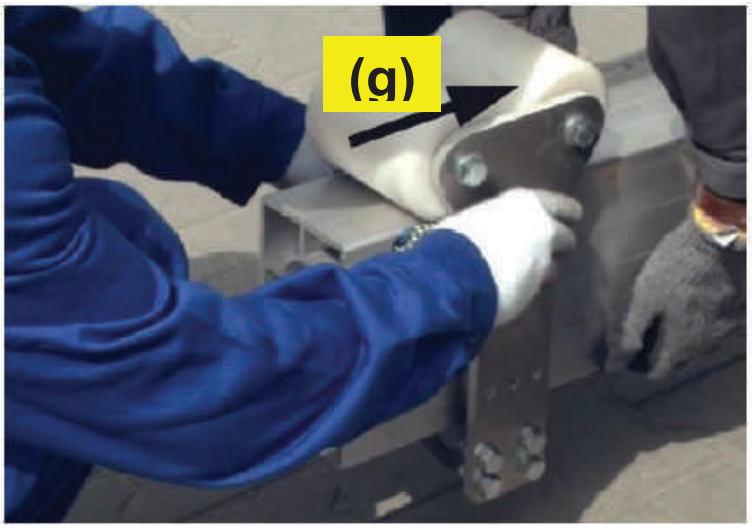


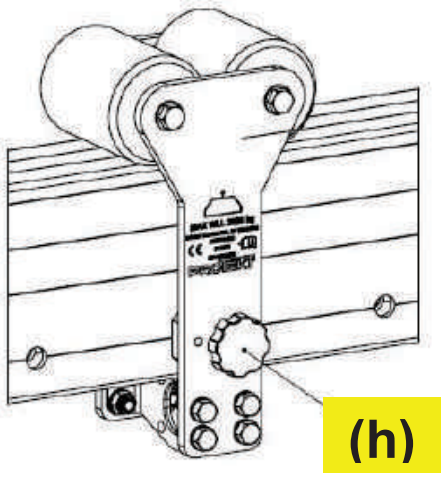
PLACE ALL REQUIRED CARRIAGES ON THE BEAM BEFORE INSTALLING THE SECOND SUPPORT!

2.3. INSTALLATION OF CARRIAGES

2.3.1. INSTALLATION OF AN EXTERNAL CARRIAGE

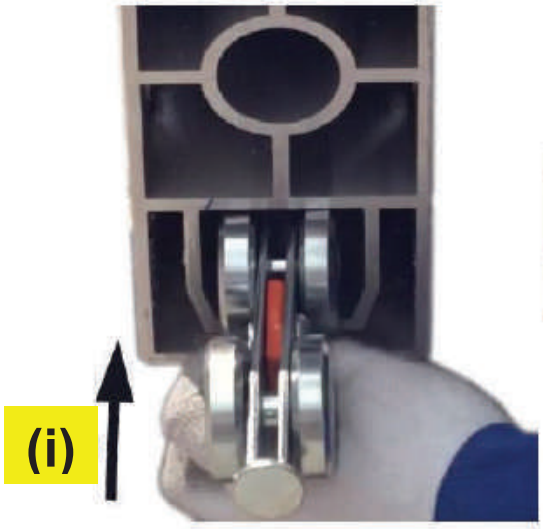
- Place the external carriage on the free end of the beam (g) and secure the position of the carriage (h) near the centre of the beam with the knob (friction brake).



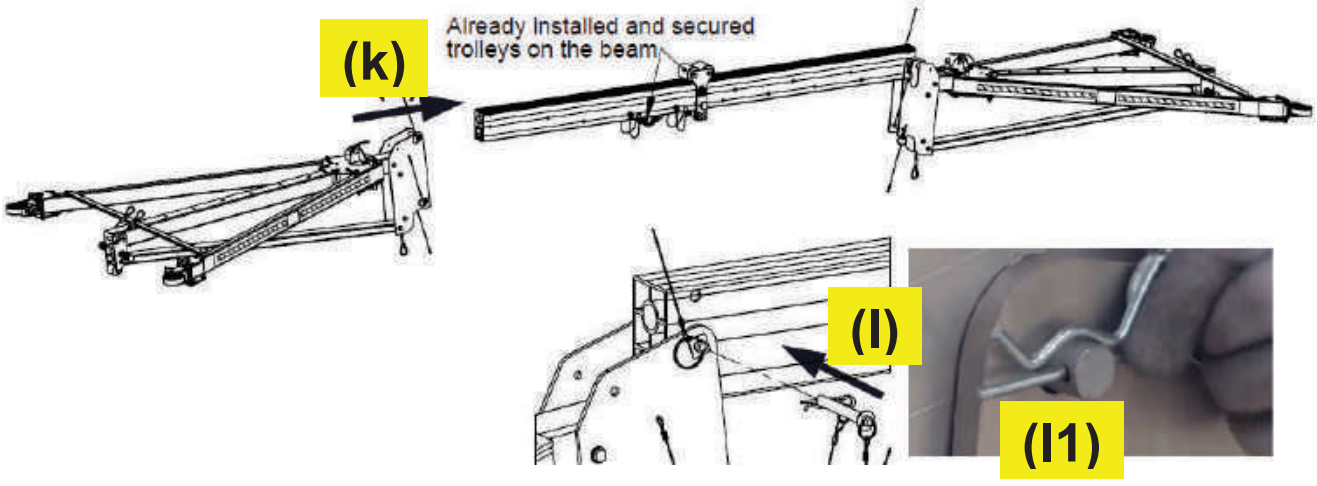


2.3.2. INSTALLATION OF AN INTERNAL CARRIAGE

- Place the internal carriage on the beam rail (i) and secure the position of the carriage with two pins with a cotter pin (j).



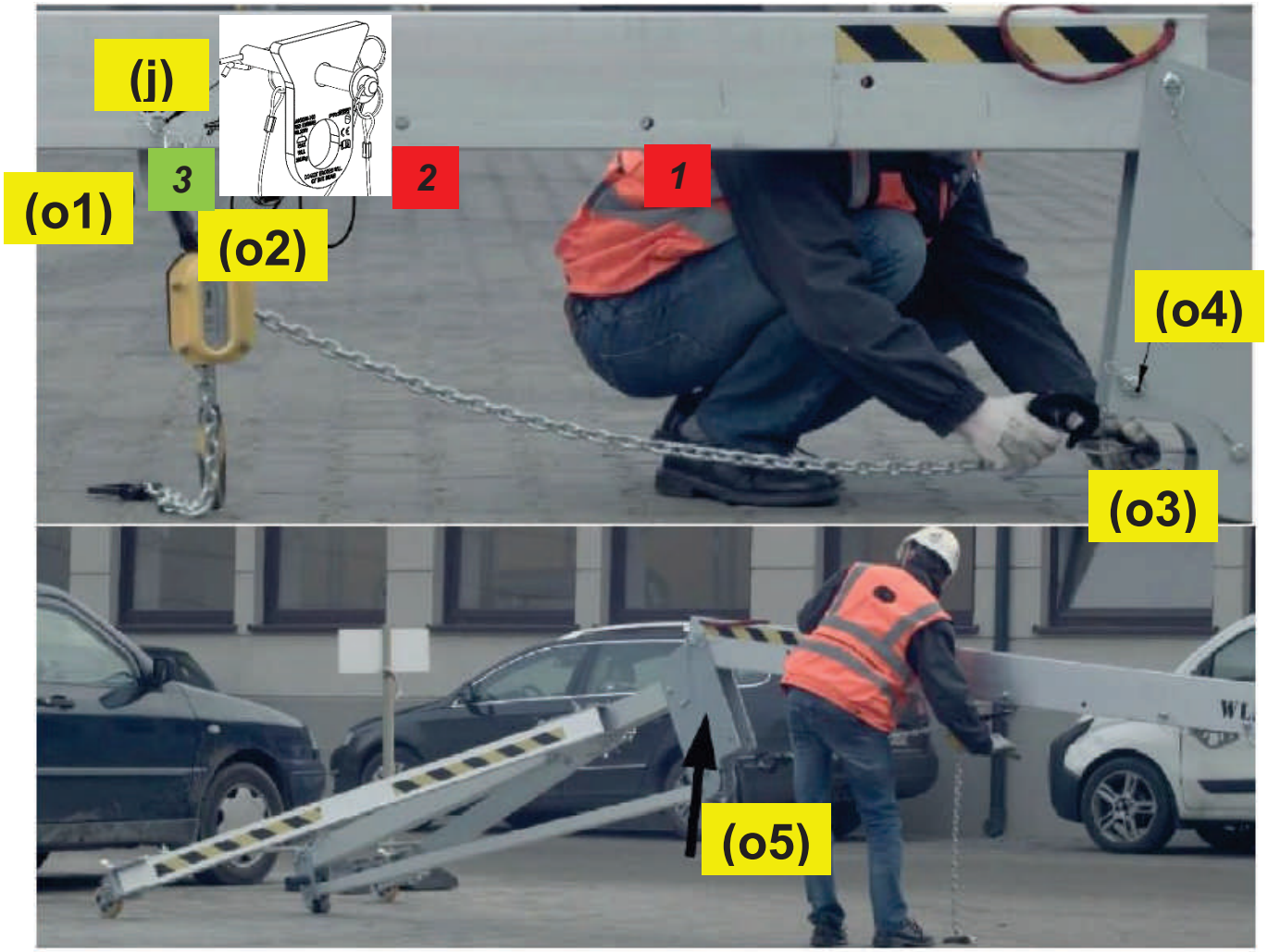
- Once all the required carriages have been installed, fix the second support at the end of the beam (k) with pin "A" (l).
- Secure the pin with a cotter pin (l1).
- At this point, the ASB500-600 beam transporter can be easily removed.



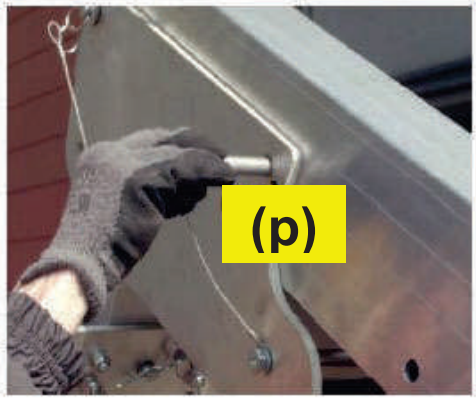
2.4. LIFTING OF THE MACHINE SUPPORTS

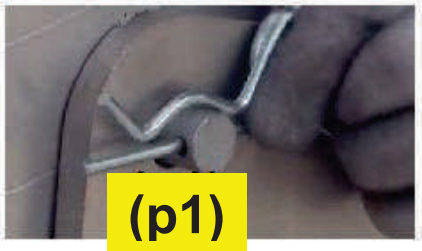
It is recommended that the supports be lifted using a chain hoist (WLL of at least 1.5 tonnes) and a support lifting hitch (ASB500-360).

- Attach the ASB500-360 hitch **to the third lower hole of the beam** (o1).
- Attach the chain hoist to the ASB500-360 hitch installed on the beam (o2).
- **The ASB500-360 hitch must be immobilised with a pin with a cotter pin (j).**
- Attach the chain hoist hook to the end of the steel rope (o3) located between the front support plates.
- Ensure that the pin with pin “B” has been removed from the front support plate (o4).
- Start lifting the support with the chain hoist lever (05).
- **Ensure that the entire unit is stable during lifting.**



- Place the second pin “B” in the front support plate (p).
- Secure pin with a cotter pin! (p1).
- Release the chain hoist and remove the steel rope.
- Perform the same steps for the second support.

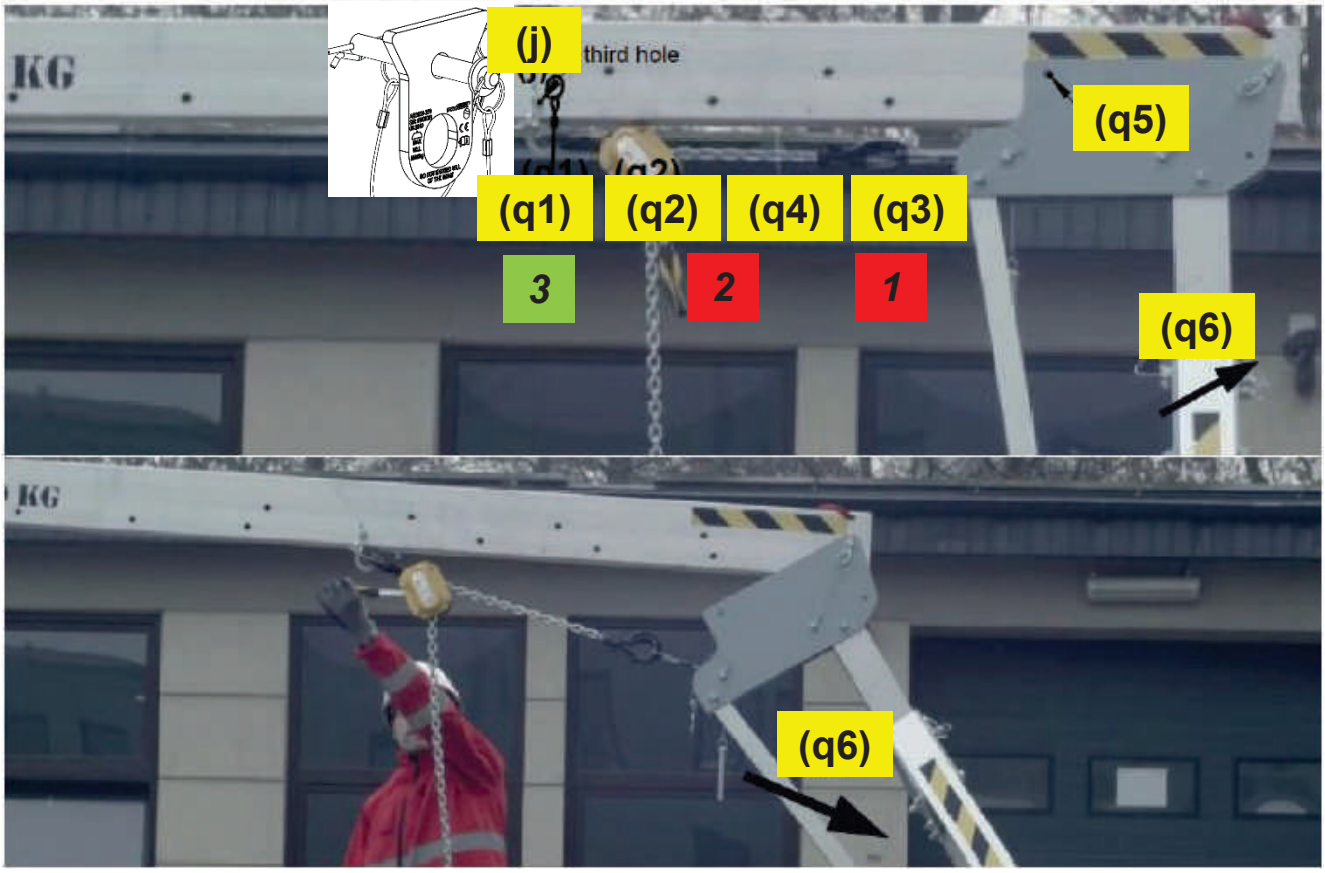




2.5. LOWERING THE SUPPORT LEGS OF THE MACHINE

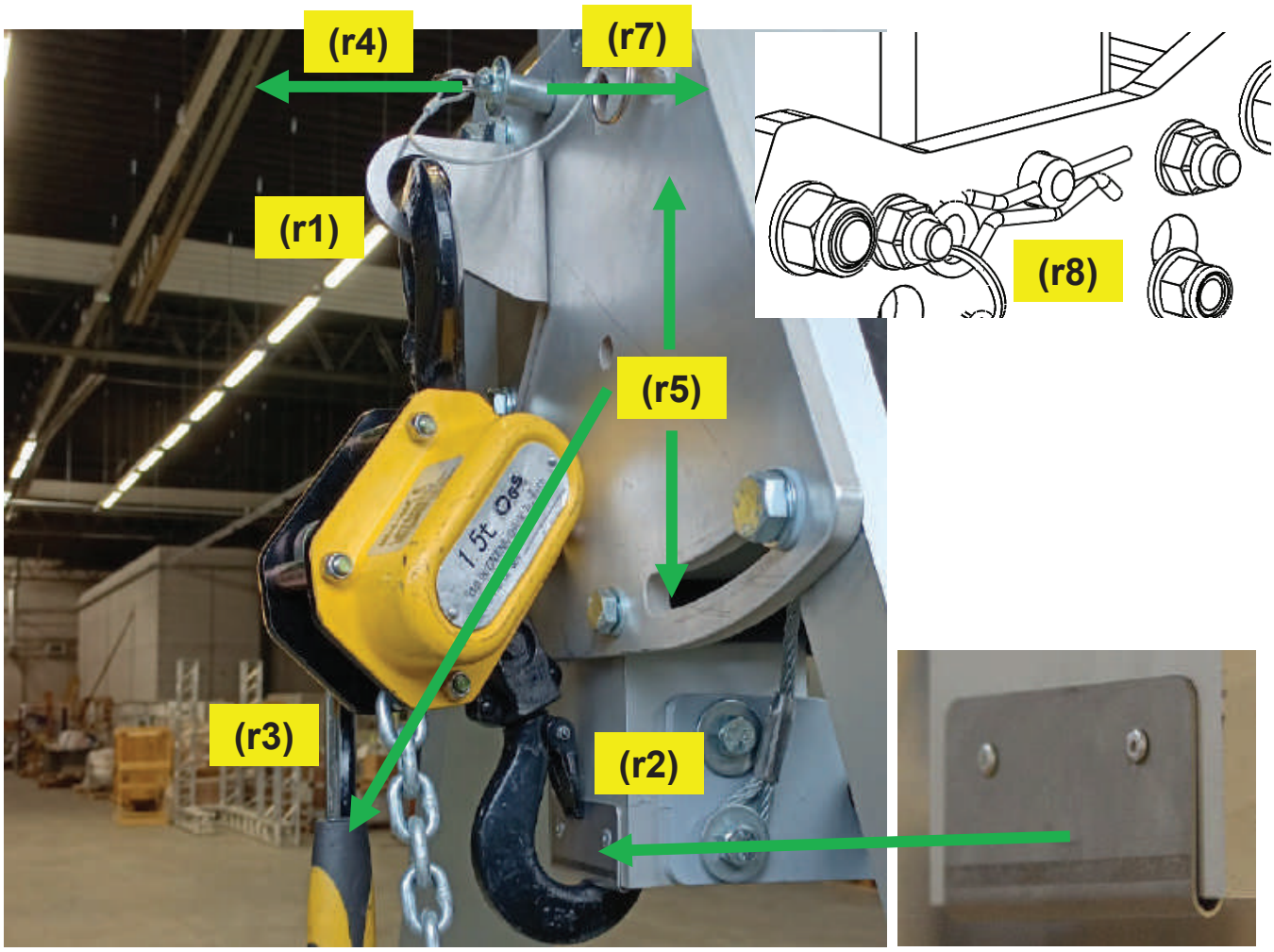
It is recommended that the supports are lowered using a chain hoist (WLL of at least 1.5 tonnes) and a support lifting hitch (ASB500-360).

- Ensure that all wheel brakes are locked (f1) before lowering the prop.
- Fix the ASB500-360 hitch in the third lower hole of the beam (q1).
- Attach the chain hoist to the ASB500-360 hitch installed on the beam (q2).
- **The ASB500-360 hitch must be immobilised with a pin with a cotter pin (j).**
- Attach the chain hoist hook to the end of the steel rope (q3) located between the front support plates.
- **Ensure that the chain hoist mechanism is locked, the chain is tensioned (q4) and the hook is correctly attached to the end of the steel rope. A small amount of chain play is permitted.**
- Remove the pin with pin “B” from the front support plate (q5).
- Unlock the wheels and slide the support outwards (q6).
- **Ensure that the entire unit is stable when lowered.**
- Perform the same steps for the second support.

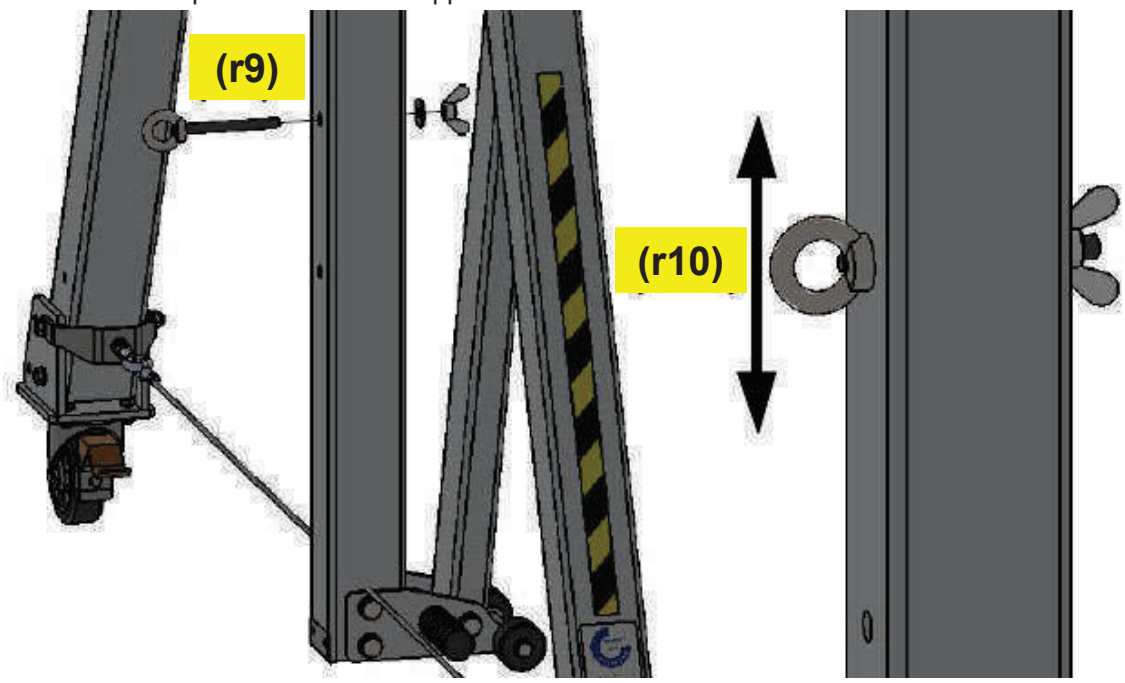


2.6. BEAM HEIGHT ADJUSTMENT (WITH THE CHAIN HOIST)

- Hook the chain hoist (1.5 t recommended) to the chain hoist (r1).
- Attach the chain hoist hook to the lower edge of the vertical support section (r2).
- Using the hoist lever, pre-lift the vertical profile to unlock the pin (r3).
- **Ensure that the chain hoist mechanism is locked and that the hook is correctly attached to the lower edge of the vertical support section.**
- Remove the pin with the cotter pin (r4).
- Adjust (up or down) the height of the vertical part of the support (r5) using the chain hoist lever (r3).
- Once the adjustment is complete, reinsert the pin (r6) and secure it with the pin (r8).



- If the hoist chain is too short to reach the lower edge of the vertical profile, the ASB500-370 (r9) auxiliary hitch can be used. The hitch must be installed in the hole of the vertical profile and the chain hoist hook must be attached to the hitching eye (r10).
- Perform the same steps for the second support.

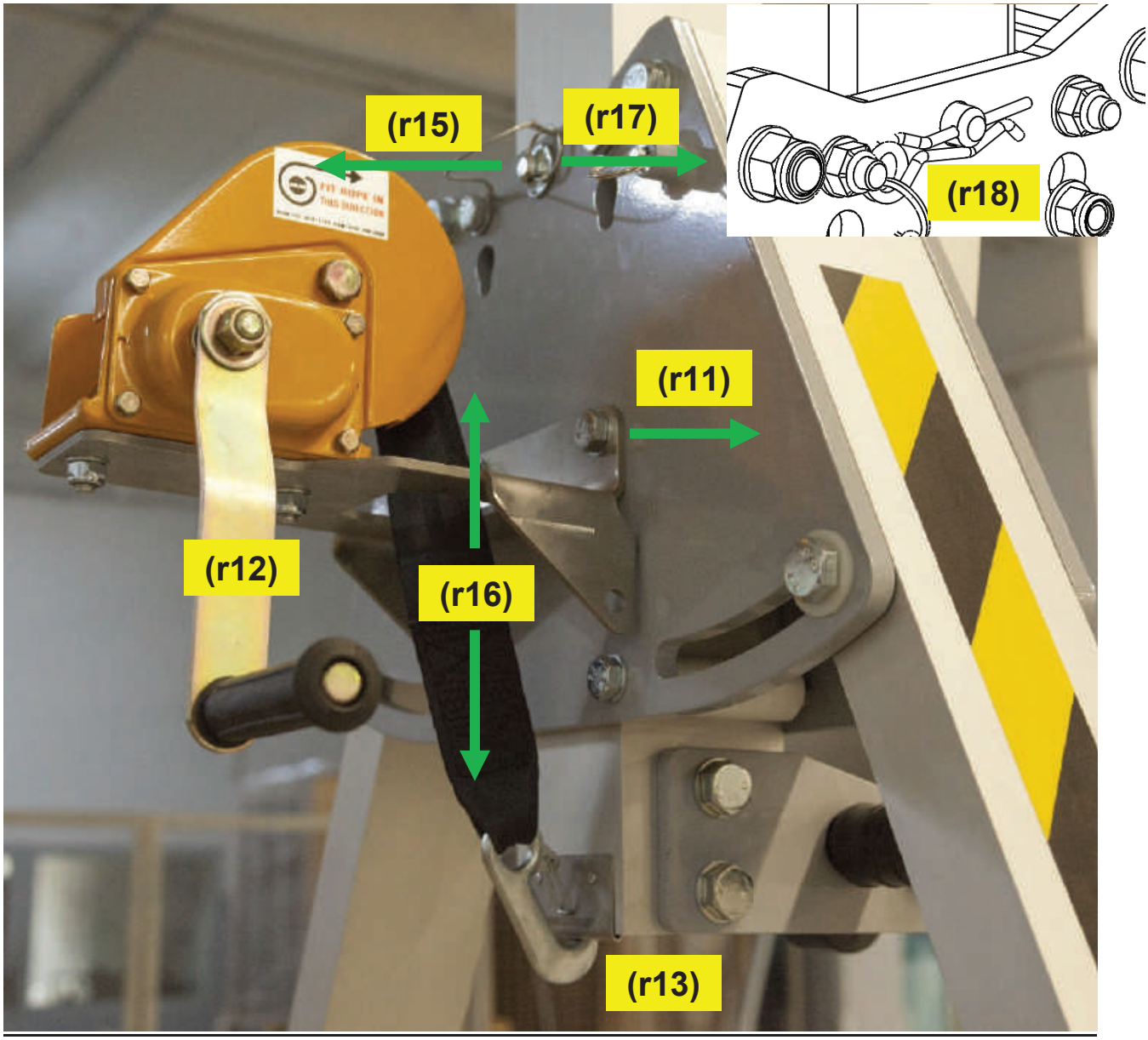


CAUTION! BOTH SUPPORTS MUST BE RAISED TO THE SAME HEIGHT!

2.7. BEAM HEIGHT ADJUSTMENT (BY MEANS OF A STRAP WINCH)

- Install the strap winch ASB000-A03-000 to the main support node in the two lower holes of the side plate using bolts with wing nuts (r11).
- By turning the crank (r12), pull out the strap and fix the hook on the lower edge of the support vertical profile (r13):
- Tension the strap with the winch lever and remove the pin with pin (r15).
- Adjust the support height (r16) using the winch lever (r12).
- After adjustment, insert the pin (r17) and secure it with the cotter pin! (r18).

CAUTION! THE ASB/LSB MUST NOT BE USED WHEN THE VERTICAL PROFILE OF THE SUPPORT IS ONLY SUSPENDED FROM THE SUPPORT LIFTING DEVICE AND IS NOT SECURED BY A PIN WITH A COTTER PIN!!!

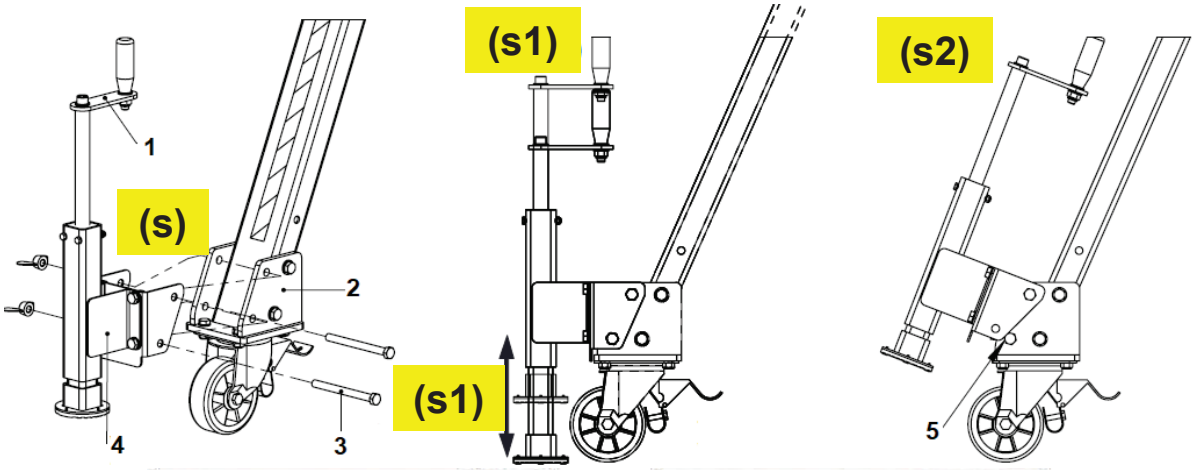


CAUTION! BOTH SUPPORTS MUST BE RAISED TO THE SAME HEIGHT!

2.8. WHEEL SUPPORT INSTALLATION

- It is recommended to use an additional set of wheel supports for better stability of the unit when lifting the load.
- Fix the wheel bracket to the leg using two bolts with wing nuts (s).
- Adjust the height by turning the crank (s1).
- Pay attention to the position of the additional wheel support when transporting the ASB. (s2).

1. crank
2. Leg
3. bolt
4. Wheel support
5. TRANSPORT POSITION (wheel support resting on bolt).

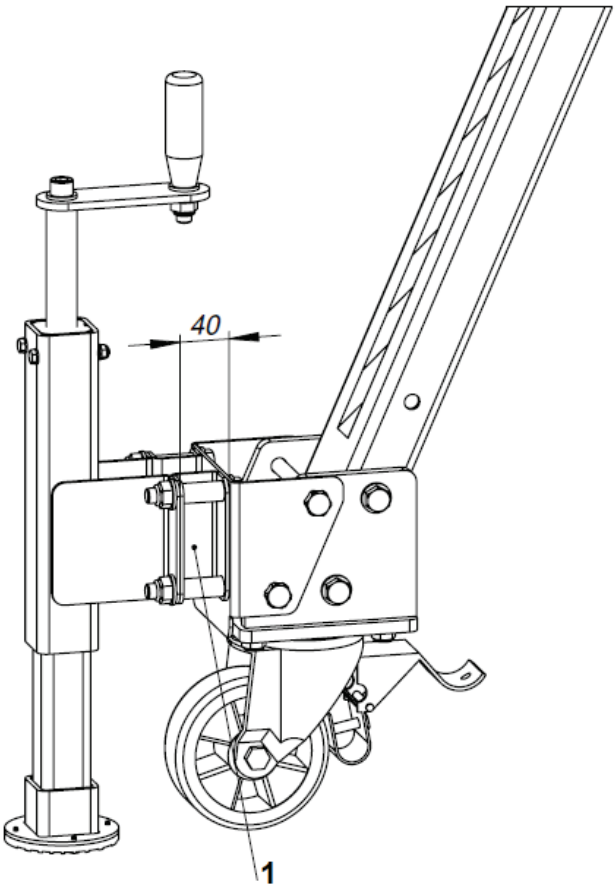


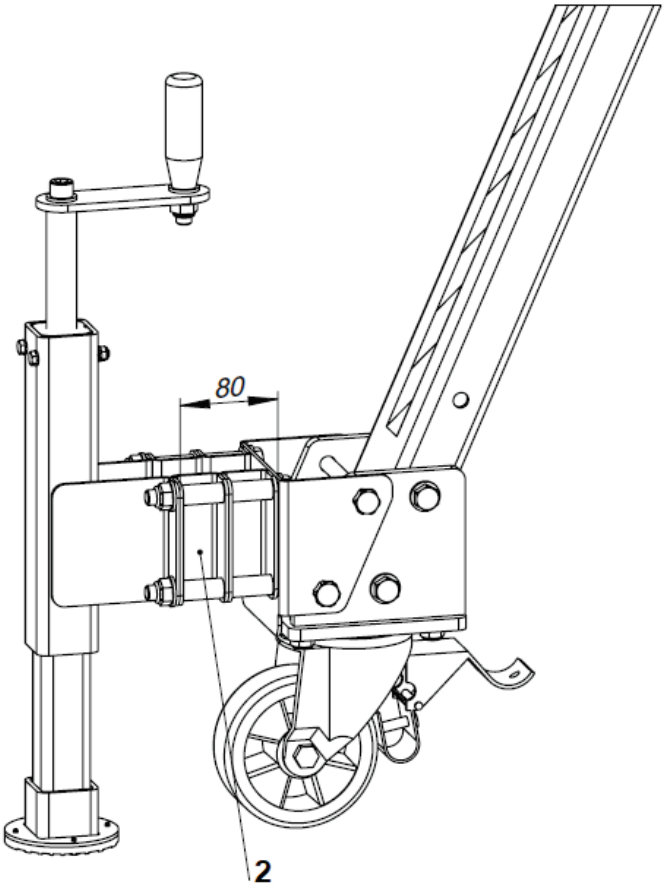
2.9. WHEEL BRACKET SPACER

The distance between the wheel and the wheel bracket can be increased with the following items:

- ASB500-813 – 40 mm spacer (recommended for W1 wheels with 160 mm diameter) – 1
- ASB500-814 – 80 mm spacer (recommended for W2 wheels with 200 mm diameter) – 2

Spacers can be used when the unit is frequently moved and continuously used with wheel supports. It is not necessary to adjust the transport position (described in Section 7-A).





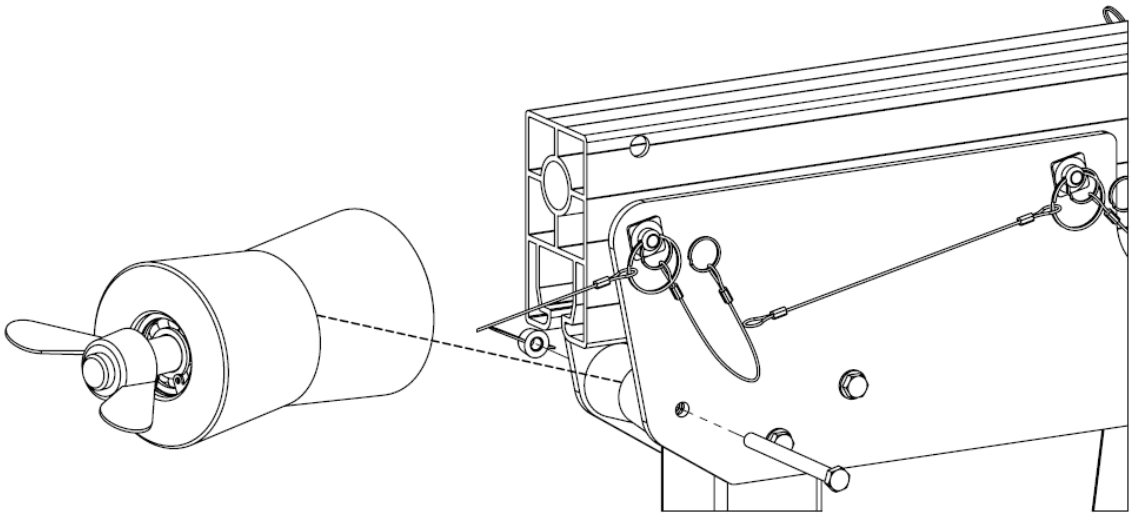
2.10. INSTALLATION OF SHEAVES

The ASB can be used together with a lifting device with brake. Two types of sheaves must be used to guide the rope of the lifting device:

- ASB500-180 – support sheave
- ASB500-240 – beam sheave

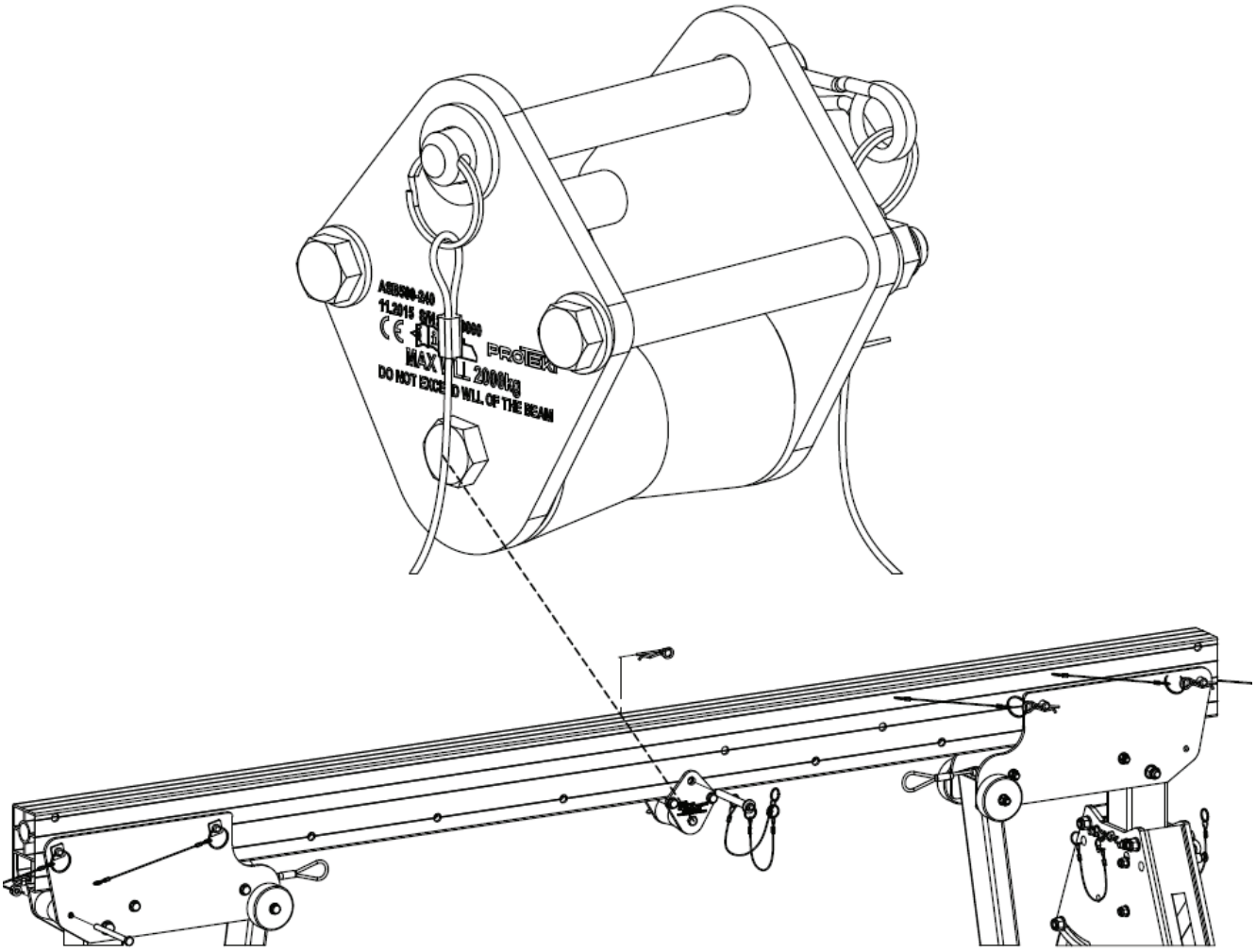
2.10.1. Sheave for the support ASB500-180

Installed between the two front support plates using a bolt and wing nut.



2.10.2. Sheave for the beam ASB500-240

Installed in a single hole located on the beam using the pin and a cotter pin ASB500-130 (pin included).

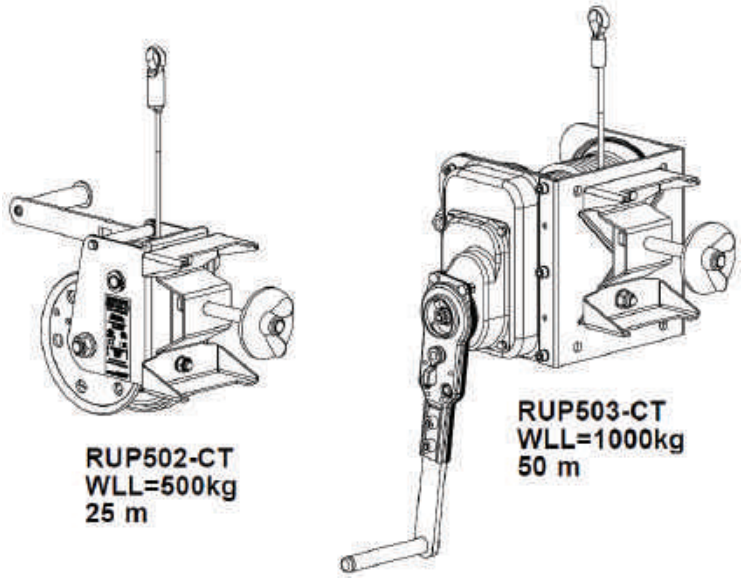


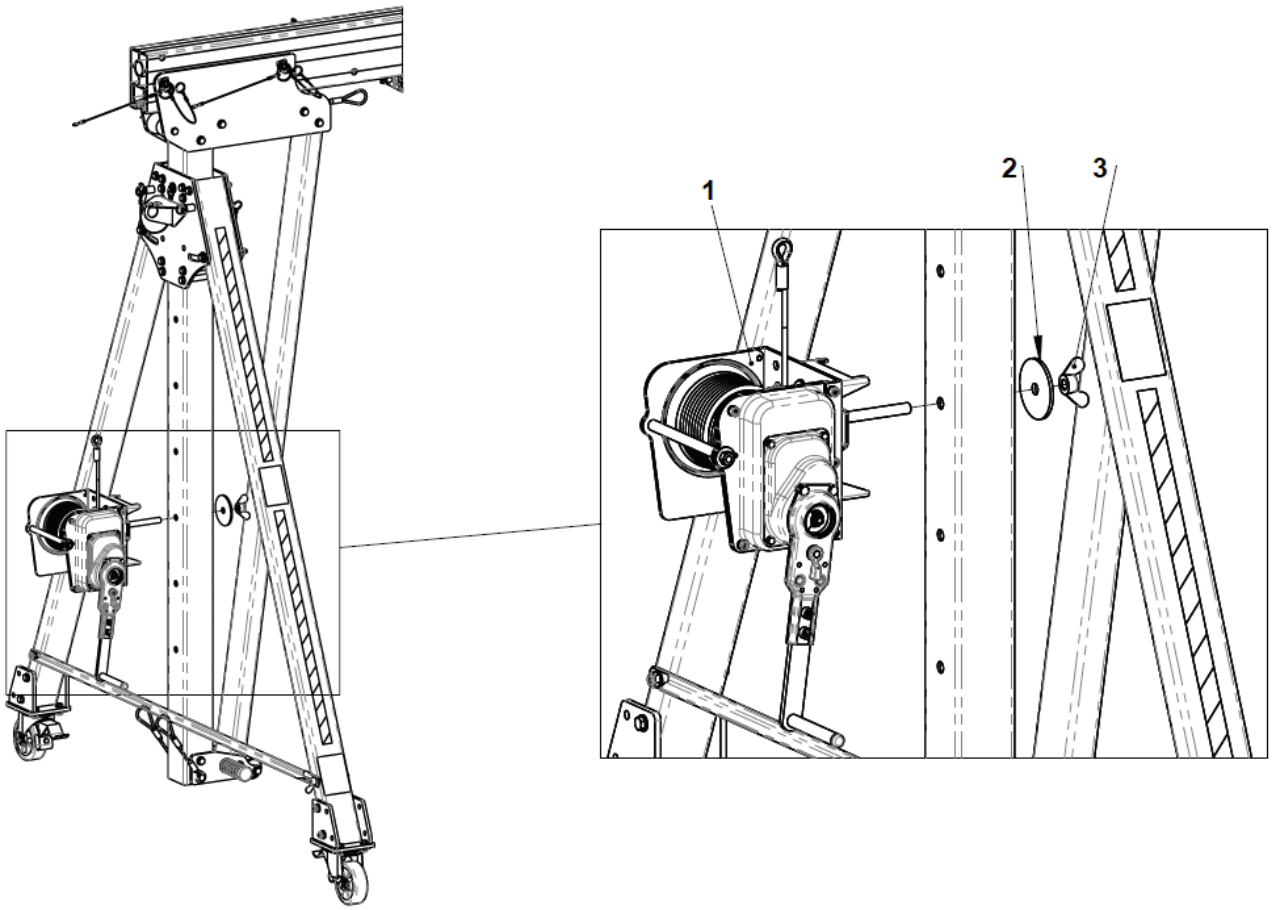
2.11. LIFTING EQUIPMENT INSTALLATION

2.11.1. INSTALLATION OF THE RP50X-CT LIFTING DEVICE

The ASB/LSB device may be used together with a hoisting device with a brake, RUP50x series.

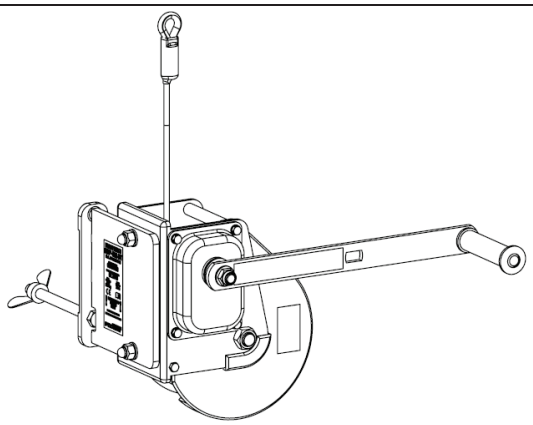
The RUP50x-CT lifting device can be installed in a single hole in the vertical part of the support (all support sizes A/B/C/E/F/G).

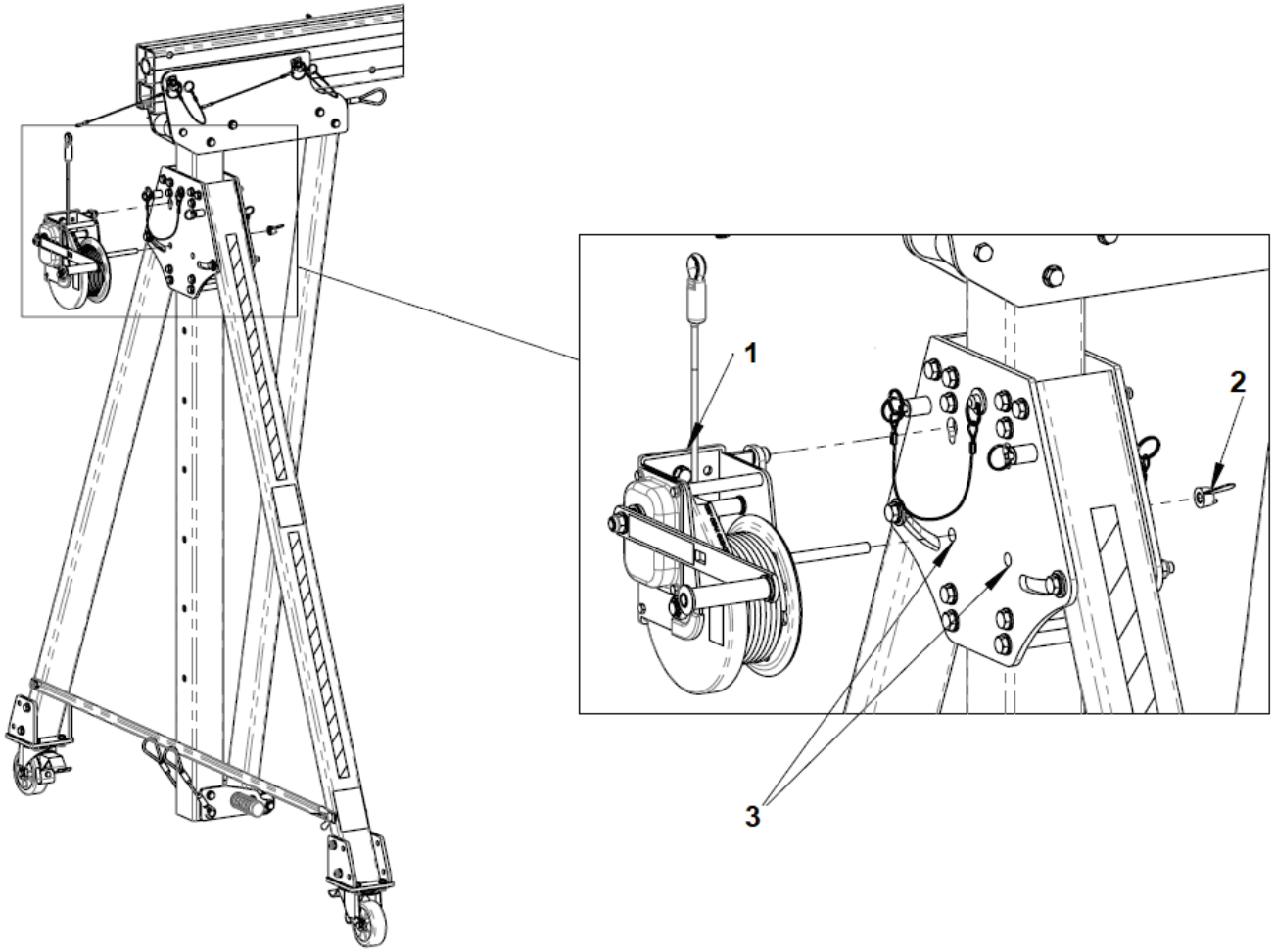
-1. RUP50x-CT -2. support plate -3. wing nut	



2.11.2. INSTALLATION OF THE RUP502-DT LIFTING DEVICE

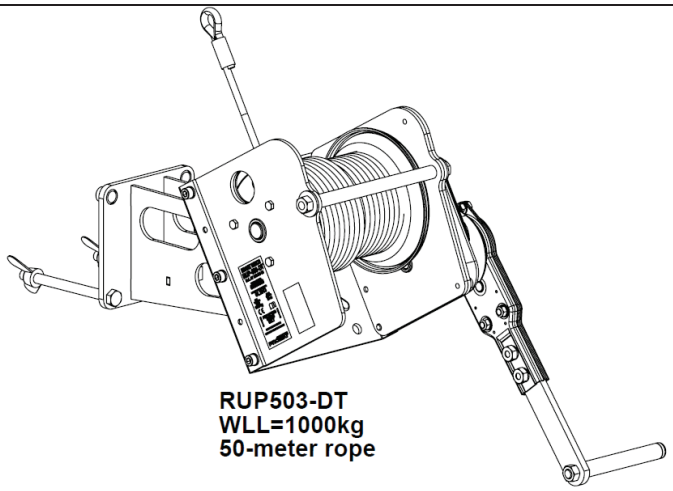
The ASB/LSB device may be used together with a hoisting device with a brake, RUP502-DT series.
The RUP502-DT lifting device can be installed on the side plate of the low and medium support (A/B/E/F).

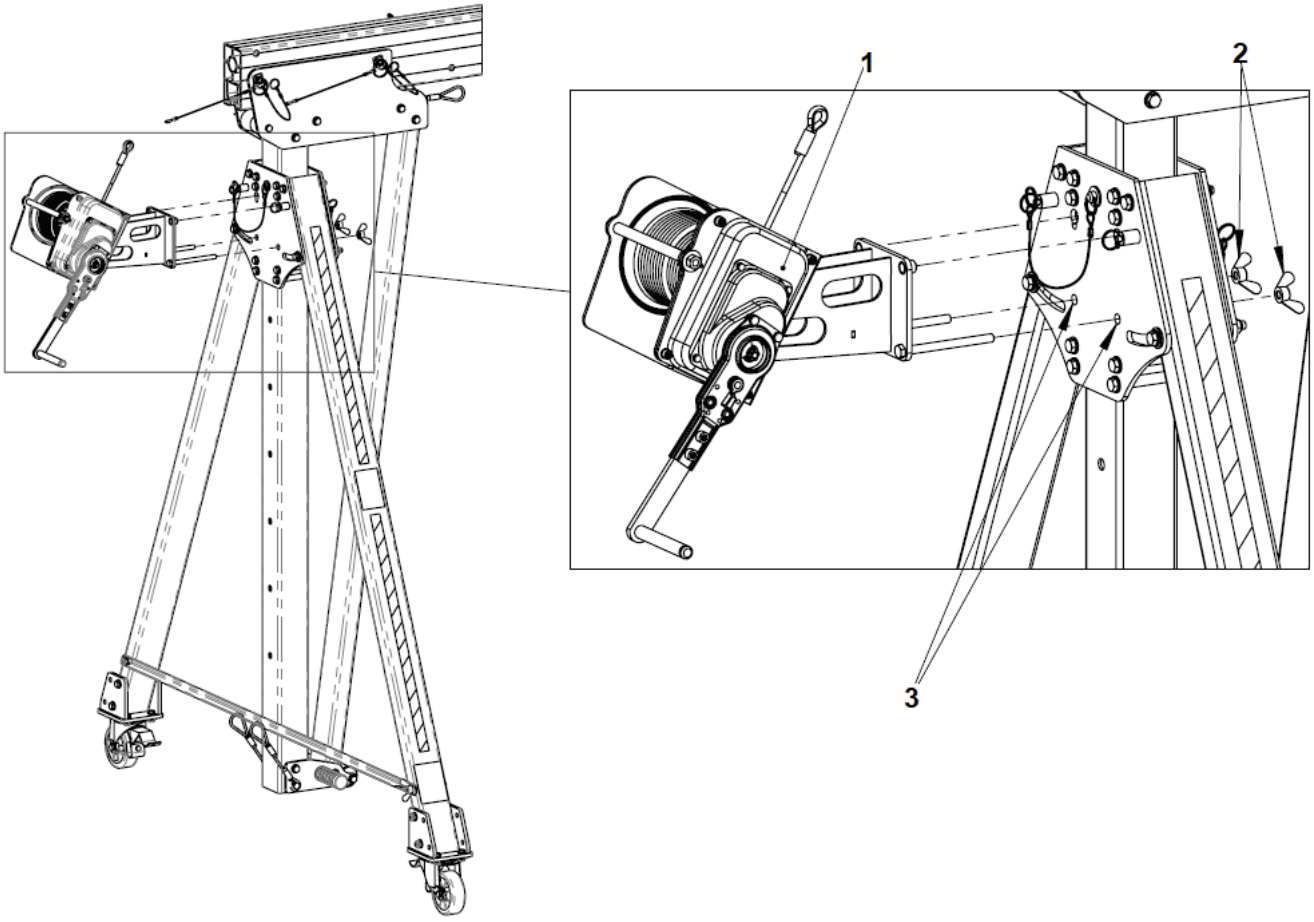
-1. RUP502-DT -2. wing nut **-3. NOTE!! The RUP502-DT can be installed on a side support plate with two additional holes!**	 **RUP502-DT** **WLL=500kg** **25-meter**



2.11.3. INSTALLATION OF THE RUP503-DT LIFTING DEVICE

The ASB/LSB device may be used together with a hoisting device with a brake, RUP503-DT series.
The RUP503-DT lifting device can be installed on the side plate of the low and medium support (A/B/E/F).

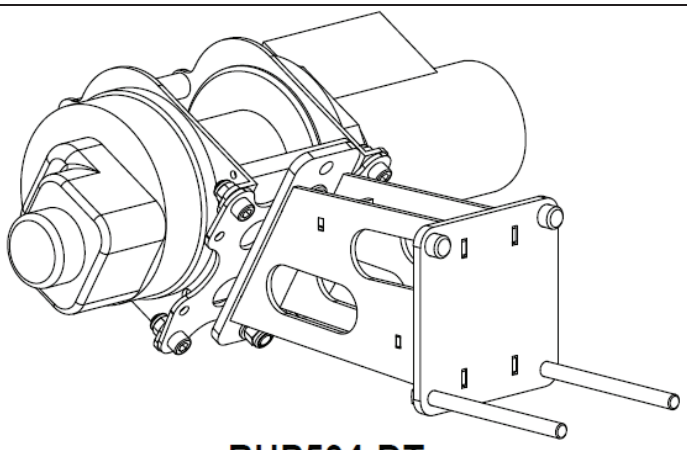
-1. RUP503-DT -2. wing nut **NOTE!! The RUP503-DT can be installed on a side support plate with two additional holes!**	 **RUP503-DT** **WLL=1000kg** **50-meter rope**

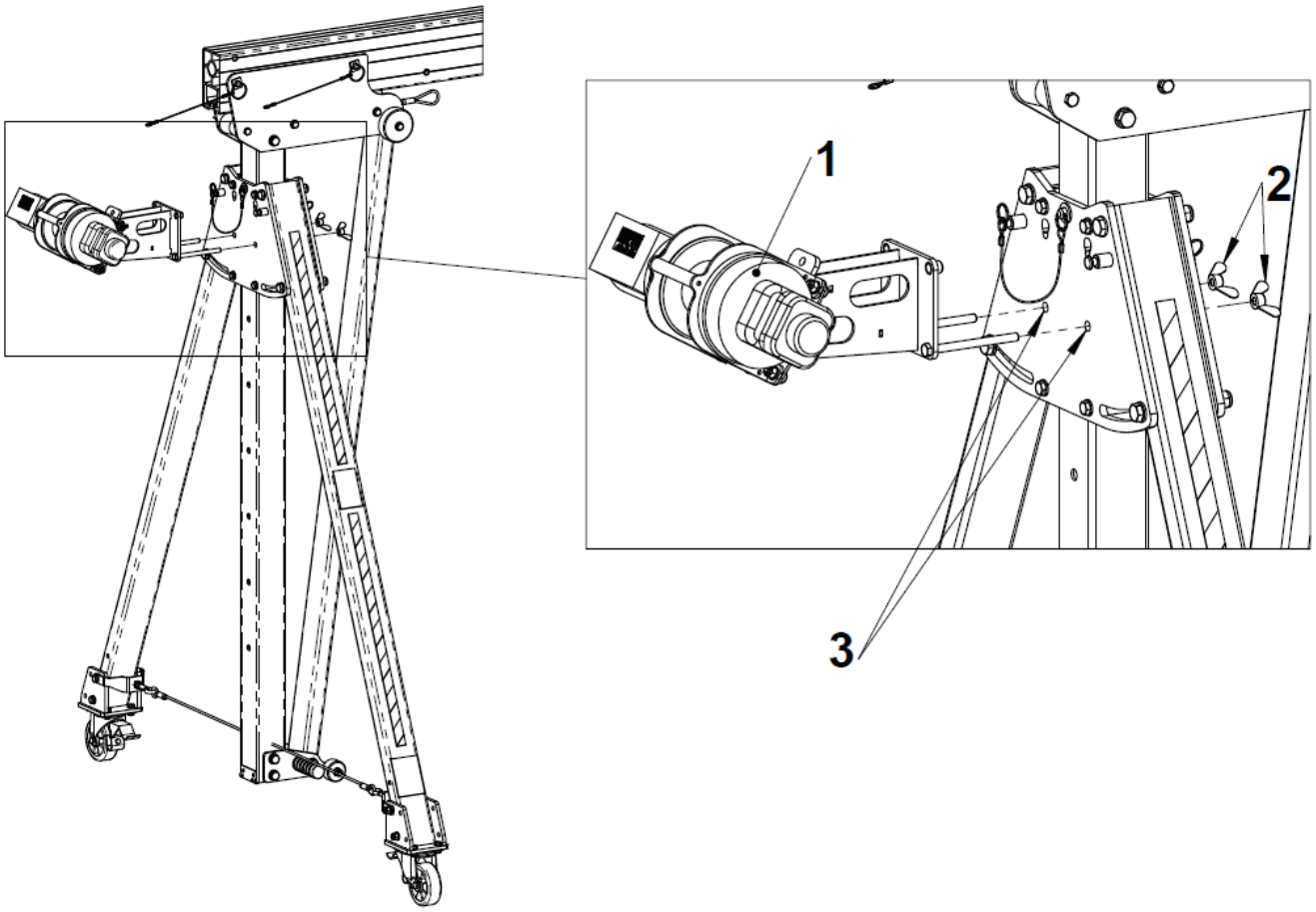


2.11.4. RUP504-DT ELECTRIC HOIST INSTALLATION

The ASB/LSB device may be used together with an electric hoist RUP504-DT.

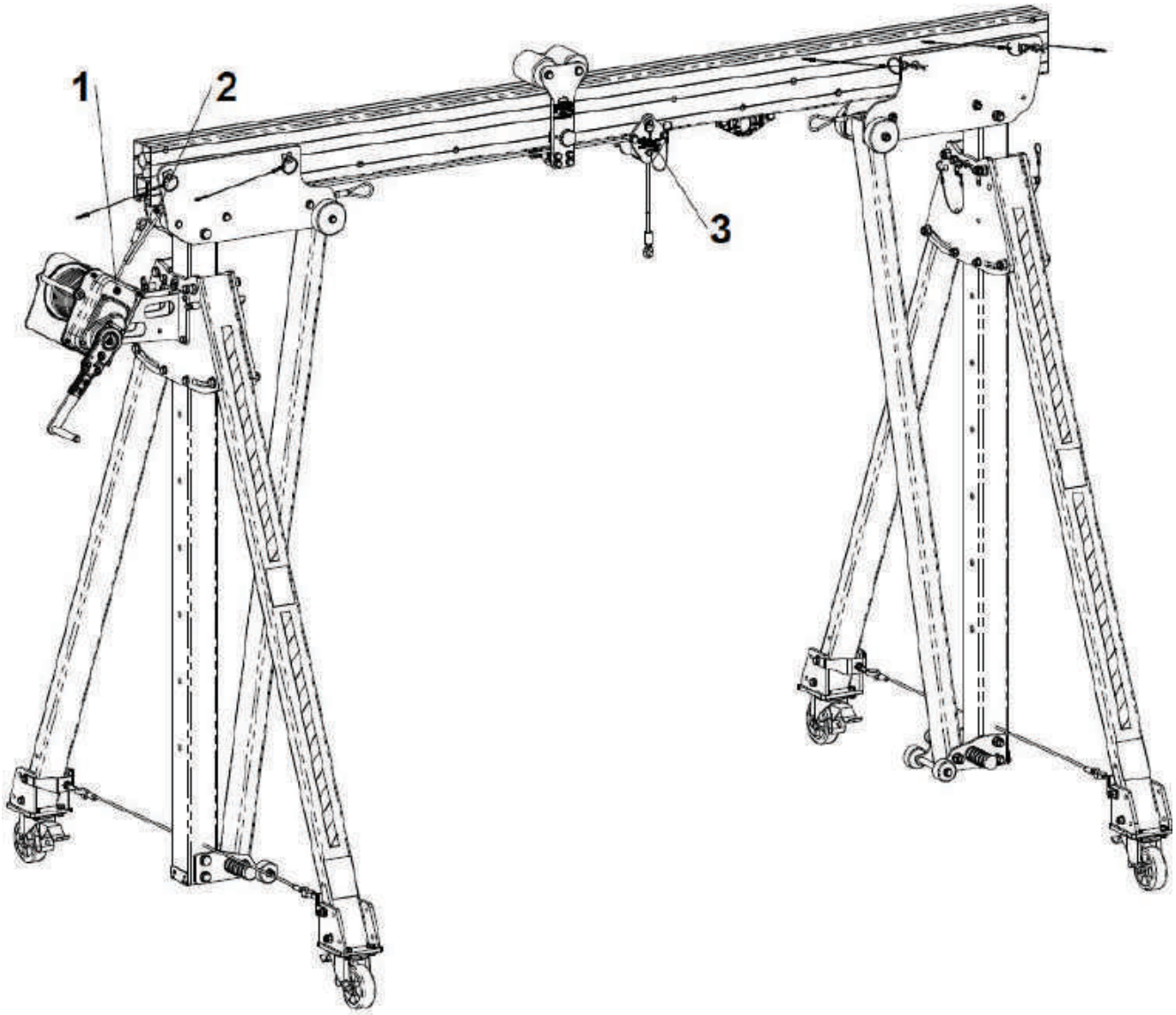
The RUP532-DT lifting device can be installed on the side plate of the low and medium support (A/B/E/F).

-1. RUP503-DT -2. wing nut **NOTE!! The RUP504-DT can be installed on a side support plate with two additional holes!**	 **RUP504-DT** **WLL=500kg** **30-meter rope**



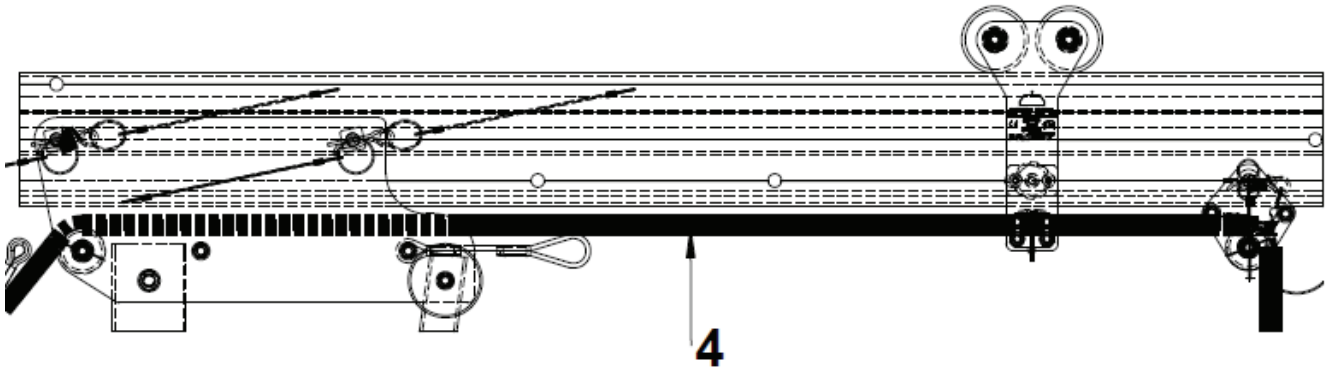
2.12. HOIST WORKING LINE INSTALLATION

The working line of the RUP50x-CT/RUP50x-DT lifting devices is to be routed through the sheaves (see 2.10) The attachment point of the external carriage does not interfere with the steel rope.



1. lifting device
2. support roller
3. beam roller

working line of the hoist



3. SECTION 3 – LOAD HANDLING

The ASB/LSB can be used with the ASB500-200 or ASB500-270-000 external carriage to handle loads with the maximum weight (WLL) marked on the beam. Several load carriages can be used on a single beam. Loads suspended on several external carriages may not exceed the WLL value specified on the beam. Information on personal protection when handling loads is contained in Section 5.

3.1. LOAD CAPACITY

The load lifted using the ASB/LSB device may be connected to the anchor point of the load carriage using chain hoists or other lifting equipment with an adequate load capacity. The internal carriage should be installed on the beam. The maximum load capacity of the device is marked on the beam.

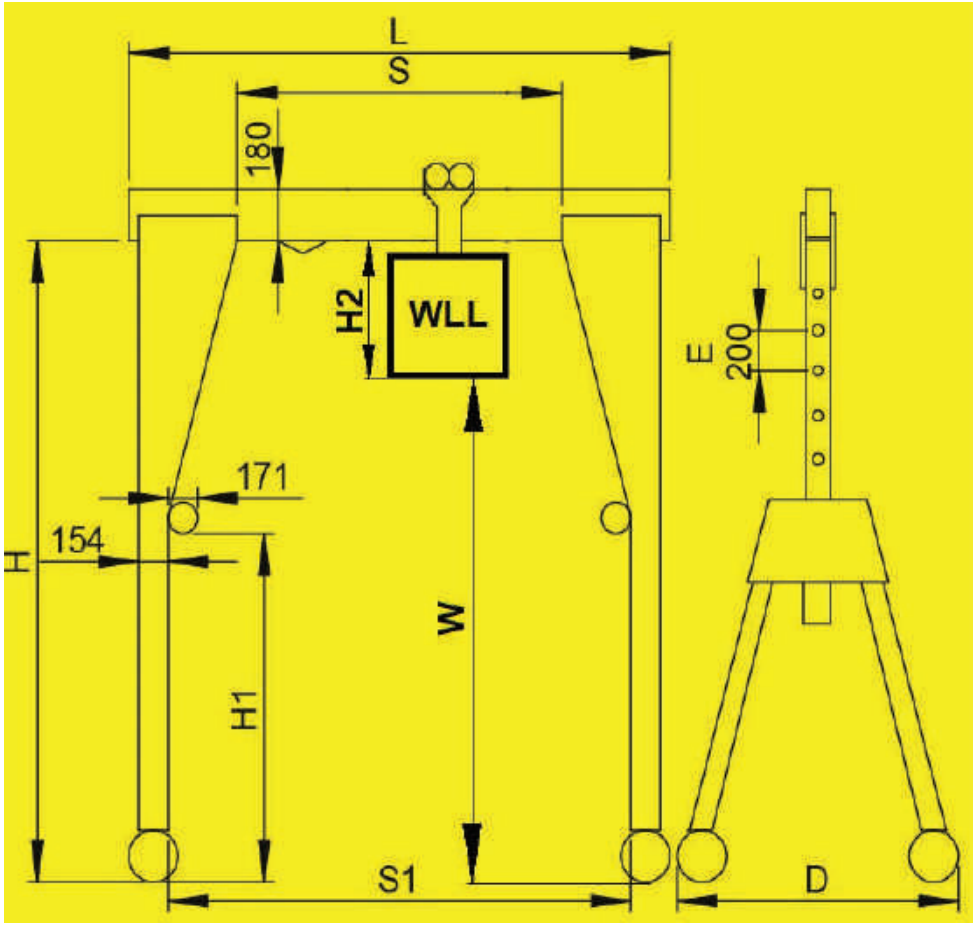
Do not exceed the working load limit value (WLL) specified on the beam.

The working load limit value (WLL) of the used hoisting device may not exceed the WLL of the beam.

3.2. LAYOUT DRAWING INCLUDING THE ATTACHED HOIST

Dimensions are filled in the following drawing, on the basis of the data provided in the technical tables for ASB devices (see paragraph 0) /LSB (see paragraph 1.6). Dimension L/S/S1/H/H1/E/D are available in technical tables.

The H2/W dimensions and the new value for WLL should be filled according to the installed winch.



WLL	.....
W	.....
H	.....
H2	.....
H1	.....
S	.....
S1	.....
D	.....

MODEL/TYPE/WLL OF THE USED HOISTING DEVICE	.....

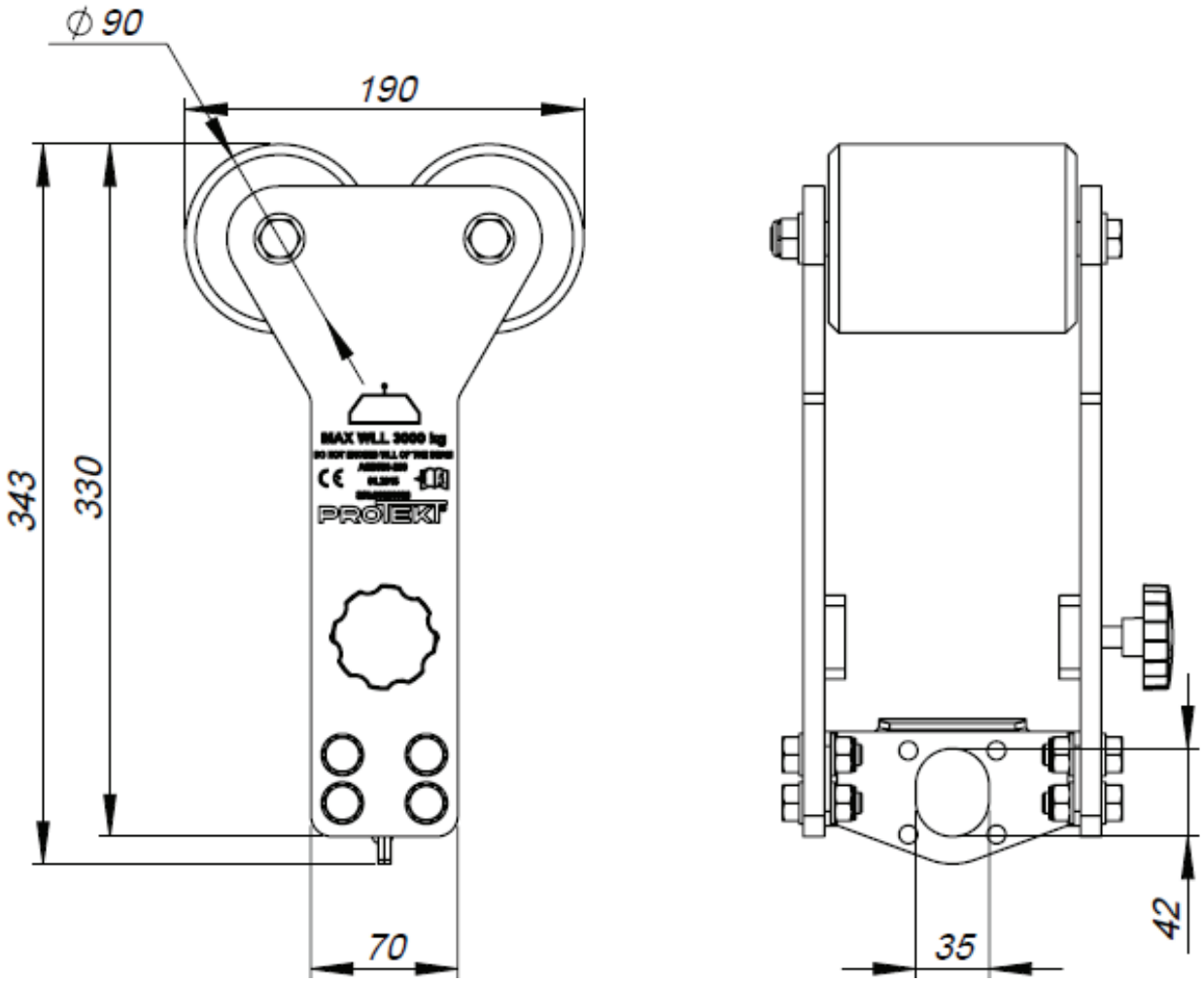
CAUTION! THE WORKING LOAD (WLL) OF THE HOIST MUST BE LOWER THAN OR EQUAL TO THE WORKING LOAD (WLL) DESIGNATED ON THE BEAM OF THE ASB/LSB DEVICE.

3.3. GENERAL PRECAUTIONS FOR LOAD HANDLING

- The ASB/LSB is used to lift and lower loads with weight not exceeding the WLL value specified for it.
- The external carriage is not intended for rescue and evacuation purposes.
- The ASB/LSB device should be used only according to its intended use.
- Do not lift loads over locations where people are present while using the device.
- The structure of the device may not be modified, repairs may not be performed and parts from the provided kit should not be replaced.
- Before each use of the device, its technical condition and operation should be checked thoroughly. Thoroughly check all the parts, paying particular attention to all signs of damage, excessive wear, corrosion, abrasion, cuts and faulty operation.
- The device should be immediately decommissioned in the case of any doubts regarding its technical condition or operation. The device may be used again only if a thorough factory inspection is carried out and a written approval of the manufacturer for use is obtained.
- The ASB device should be placed on a flat, paved and stable surface, free of stones, gravel, etc.
- Check the stability of the load attached to the anchor point of the external carriage or the line in order to prevent accidental detachment of any element.
- The use of the device together with other equipment (e.g. equipment used to lift and lower loads) should take place according to the user manuals for such equipment.
- Use of kits involving the ASB/LSB device, in which the operation of any element disrupts the operation of other elements, is prohibited.
- Contract the manufacturer in the case of doubts regarding the technical condition and the operating conditions of this device.
- Avoid working in situations, in which the user may swing, resulting in an impact with an object or if the lines may cross each other or become entangled in other lines or ropes used by a different user present nearby.

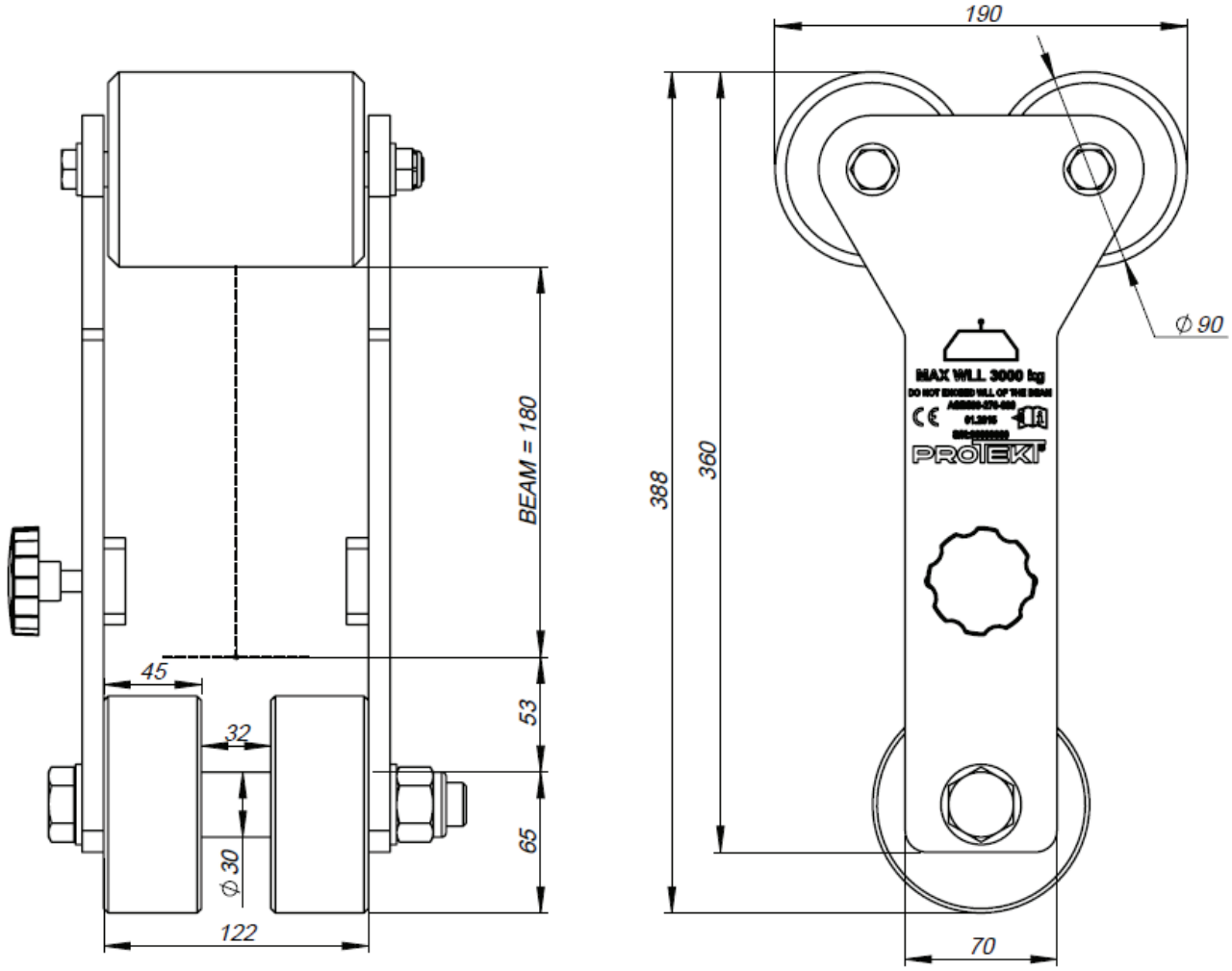
3.4. EXTERNAL CARRIAGE ASB500-200 – DIMENSIONS

The ASB500-200 carriage must be installed when the second support is fitted to the beam of the ASB/LSB unit.



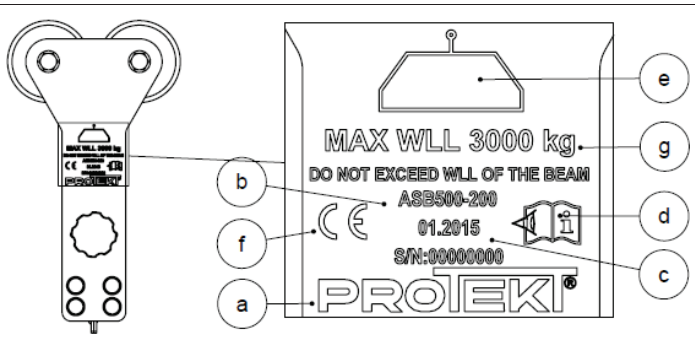
3.5. EXTERNAL CARRIAGE WITH A PIN ASB500-270-000 – DIMENSIONS

The ASB500-270-000 carriage can be fitted after the entire ASB/LSB unit has been assembled.



3.6. MARKING OF EXTERNAL CARRIAGES

a) Designation of the manufacturer or distributor.
b) Model symbol/part no.
c) Month and year of manufacture/serial number
d) Note: read the instruction manual
e) Load hoisting device.
f) CE mark
g) Working load limit (WLL).



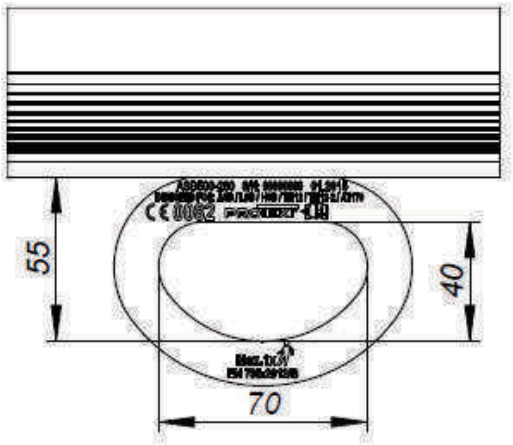
3.7. ASB BEAM DEFLECTION AT THE WORKING LOAD LIMIT (WLL)

Length [m]	2	3	4	5	6	7	8	9
WLL [kg]	3000	3000	3000	2500	2000	1500	500	500
Deflection [mm]	up to 10 mm	up to 20 mm	up to 30 mm	up to 40 mm	up to 50 mm	up to 70 mm	up to 100 mm	up to 120 mm

4. SECTION 4

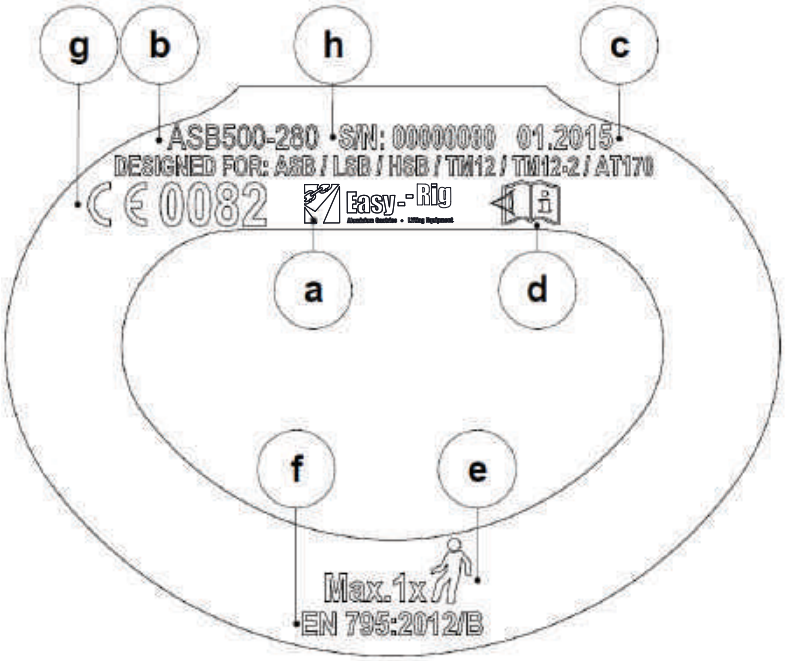
4.1. PERSONAL PROTECTION IN ACCORDANCE WITH EN 795 AND TS 16415 (PPE)

In accordance with EN 795 and document TS 16415, the ASB/LSB can be used as a temporary anchorage device for connecting fall protection equipment (PPE) using the ASB500-280 internal carriage.



The ASB provides protection for up to five people at a time.
The ASB device with a connected beam provides protection for up to two people at a time.
The LSB device ensures protection of up to 3 people simultaneously.
Information on personal protection when handling loads is contained in Section 5.

4.2. INTERNAL CARRIAGE MARKING (PPE)



a) Designation of the manufacturer or distributor.
b) Model symbol/part no.
c) Month and year of manufacture/serial number
d) Note: read the instruction manual
e) The maximum number of users permitted to use the device simultaneously.
f) European standard number/year/class.
g) CE mark and the ref. no. of the notified body supervising the production process.

4.3. PERSONAL PROTECTION RULES:

- One carriage can be used by one person at a time.
- In the case of the ASB, a maximum of five people can be connected to the available attachment points.
- In the case of a connected ASB device beam, two people can be connected to the available hitching points at the same time.
- In the case of the LSB, up to three people can be connected to the available attachment points.
- The anchoring points intended for personal protection are used only to attach fall arrest systems, and not hoisting devices.

4.4. GENERAL PRECAUTIONS

- Avoid working in situations, in which the user may swing, resulting in an impact with an object or if the lines may cross each other or become entangled in other lines or ropes used by a different user present nearby.
- Fall arrest systems and evacuation systems used together with this device must meet the effective European standards (EN 795 – Anchor devices; EN 362 – Connectors; EN 361 – Full body harnesses; EN 360; EN 1496 for rescue hoists; EN 1497 – Rescue and evacuation harnesses; EN 341 – Descender devices).
- The maximum fall arresting force (MAF) to which the user of the fall arrest system (FAS) is exposed during fall arrest is limited to 6 kN by EU legislation. The system used to ensure protection of the user against falls from heights must take into account the fall arrest equipment limiting the maximum value of the fall arresting force acting on the user during the fall arrest to max. 6 kN (e.g. energy absorber with a rope or a retractable type fall arrester).
- Make sure that the device was installed vertically, on a flat, stable and paved surface. The surface must be able to withstand the load.
- It is prohibited for more than five people to use the ASB device at the same time.
- It is recommended that the device is transported and assembled by at least two persons.
- Always ensure that the anchor device or structural anchor point used in a fall arresting system is correctly set up, and work using it in such a way as to reduce the risk of a fall, as well as the height of the fall. Always position the anchor device/anchor point above the workplace of the user. The shape and design of the anchor device/structural anchor point must prevent the equipment from being spontaneously disengaged. The permissible minimum static strength of the device/anchor point is 12 kN. It is recommended to use approved and marked, fixed structural anchor points complying with EN 795.

4.5. BASIC RULES OF USE FOR PERSONAL PROTECTIVE EQUIPMENT

- The PPE may only be used by people trained and competent in maintaining safety.
- The equipment must not be used by people whose health condition could pose an additional risk to their own safety during normal use and rescue operations.
- A separate emergency action plan must be drawn up for each workplace with possible hazards taken into account.
- The structure of the equipment may not be altered in any way without a prior written consent of the manufacturer.
- All repairs may only be carried out by the manufacturer of the equipment or people authorised by it.
- Personal protection equipment may not be used beyond their operational limits or for purposes other than their intended use.
- The user should maintain the personal protection equipment in a good condition.
- Before use, make sure that equipment elements installed in the fall arrest system conform with the requirements. Periodically check the connection and adjustment of equipment parts to avoid their accidental loosening or disengaging.
- It is prohibited to combine the equipment components where the safe operation of one component affects or interferes with the safe operation of another.
- If the equipment is to be marketed and/or used in a country other than that in which it was originally intended, the introducing party must provide instructions for use, maintenance, scheduled inspection and repairs written in the language of the country in which the product is to be used.
- Full body harness (conforming to EN 361) are the only permitted supporting device which may be used together with a fall arrest system.
- In the case of the full body harness, to attach the fall arrest system, use the attachment points marked with a capital “A” only.

- It is mandatory to check the required free space below the user at the workplace before each use of the fall arrest system so that, in the event of a fall, the user does not collide with the ground or any other obstacle present in the fall path. The required free space must be calculated with reference to the instructions manual of the used equipment.
- There are a number of hazards that can affect the operation of the equipment, and appropriate precautions must be taken when using the equipment, and particularly when:
- the safety ropes or lines move across sharp edges;
- any defects such as nicks, abrasions and corrosion exist;
- exposure to weather conditions;
- swinging falls;
- presence of extreme temperatures;
- use of chemicals;
- presence of live voltage.

4.6. INSPECTION

Before each use of PPE, it is mandatory to carry out an initial check of the equipment for proper operation to ensure that its condition enables safe use. When carrying out the initial check of the equipment, examine all components for damage, excessive wear, corrosion, abrasions, cuts or malfunctions, and particularly:

- pay attention to buckles, adjustment elements, anchor points, straps, seams, loops in the case of safety harnesses and belts;
- in the case of energy absorbers, pay attention to the attaching hooks, straps, seams, housings, snap hooks;
- in the case of textile lanyards, lifelines or guidelines: ropes, loops, thimbles, snap hooks, attaching elements and splices;
- in steel ropes, safety lanyards or securing ropes, pay attention to the rope, its wires, clamps, terminals, loops, thimbles, snap hooks and adjusting elements;
- in pulled, retractable type fall arresters, pay attention to the rope or the strap, correct operation of the unwinding mechanism and the brake, housing, energy absorbers and snap hooks;
- in the case of guided type fall arresters, pay attention to the body of the fall arrester itself, operation of the sliding mechanism, the locking mechanism, rivets and bolts, the snap hook, the energy absorber;
- in the case of snap hooks – the main body, the rivets, the locking device, operation of the locking mechanism;
- in the case of stands – the legs, safety pins, eyebolts, feet, chain, connectors.

1.1. PERIODIC INSPECTION

Following each 12-month period of use, the PPE must be taken out of service for a scheduled maintenance inspection. The scheduled inspections must be carried out by a qualified professional only, with knowledge and skills required to carry out scheduled inspections of PPE. The scheduled inspection may be carried out either by the manufacturer or by its authorised entities. For certain types of complex equipment, e.g. certain types of retractable type fall arresters, annual examination can only be carried out by the manufacturer or its designated entity. The maximum permitted service life of the device before the next inspection to be performed by the user shall be determined during the periodic inspection. The results of the inspection should be recorded in the operation sheet. Regular scheduled maintenance significantly improves the equipment's life, as well as the safety of its users which depends on the performance and durability of the equipment. When carrying out a scheduled inspection, ensure you check the markings on the equipment for their legibility.

4.7. SERVICE LIFE

The maximum service life of the ASB500-280 internal carriage is unlimited, however, it depends on the degree of use and ambient conditions. Using the equipment in harsh conditions, marine environment, on sharp edges, when exposed to high temperatures or aggressive substances, etc., can mean that the equipment must be withdrawn from use even after one use.

4.8. DECOMMISSIONING

The PPE must be taken out of service as soon as any doubts arise as to its condition in terms of safe use. Such PPE may not be reused until the manufacturer or its authorised entity has confirmed in writing that the equipment has been put through comprehensive testing.

4.9. DECOMMISSIONING AFTER A FALL ARREST

When used and after a fall arrest, the device must be immediately decommissioned. Next, the device must be subjected to a thorough factory inspection. The factory inspection may be performed by the following:

- manufacturer
- person authorised by the manufacturer
- company designated by the manufacturer. The suitability of the device for further use and the permitted period of use until the next manufacturer inspection are determined during the inspection. The relevant note should be provided in the operating sheet.

4.10. TRANSPORT

Handle the PPE in a protected container (e.g. a moisture-resistant textile bag, plastic bag, steel or plastic boxes) to protect it from damage or exposure to moisture.

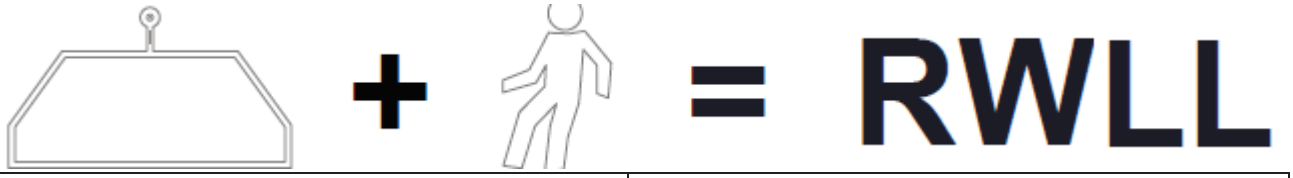
4.11. MAINTENANCE AND STORAGE

The equipment can be cleaned using methods which do not adversely affect the materials used in its manufacture. In the case of textile products, use mild detergents intended for delicate fabrics; clean by hand or in a machine and rinse with water. Plastic parts may only be cleaned with water. If the equipment gets wet during operation or cleaning, allow it to dry naturally, and protect it from heat sources located in direct vicinity. In the case of products made of metals, some parts (spring, pin, hinge, etc.) can be lubricated regularly with a small amount of lubricant to ensure better performance. In the case of other maintenance and cleaning procedures, follow the detailed instructions specified in the user manual of the used equipment. Store the PPE loosely in its package, in a well-ventilated place, and ensure it is protected from direct sunlight, ultraviolet degradation, moisture, sharp edges, extreme temperatures and corrosive substances or strong agents.

5. SECTION 5 – LOAD LIFTING AND PERSONAL PROTECTION

Before reading this section, please read Section 3 and Section 4 (All recommendations in these sections also apply to Section 5).

- The ASB/LSB can be used to lift/lower loads and personal protection at the same time.
- An external carriage and other lifting devices can be used to lift loads (see Section 3)
- An internal carriage can be used for personal protection (see section 4)/
- When the staff are protected by an internal carriage during lifting/lowering of the load, the value of the working load limit (WLL) marked on the beam must be reduced to the reduced working load limit (RWLL). The RWLL value depends on the number of employees protected.



PERMITTED CONFIGURATION	RWLL VALUE [kg] RWLL =
Load lifting only	= WLL
Load lifting + 1 person secured	= WLL – 600kg
Load lifting + 2 person secured	= WLL – 650kg
Load lifting + 3 person secured	= WLL – 700kg
Load lifting + 4 person secured	= WLL – 750kg
Load lifting + 5 person secured	= WLL – 800kg

IF THE CALCULATED RWLL VALUE IS NEGATIVE, THE DEVICE CANNOT BE USED FOR LIFTING/LOWERING LOADS AND PERSONAL PROTECTION AT THE SAME TIME.

Example 1:

The WLL value marked on 6-metre beam ASB = 2000 kg
Provided protection for 3 people with 3 internal carriages RWLL = WLL – 700 kg = 2000 kg – 700 kg = 1300 kg
Results: the device can be used simultaneously for personal protection (3 people) and for lifting/lowering loads (up to 1300 kg).

Example 2:

The WLL value marked on 7-metre beam LSB = 500 kg
Provided protection for 3 people with 3 internal carriages RWLL = WLL – 700 kg = 500 kg – 700 kg = -200 kg
Results: the device cannot be used for personal protection and lifting/lowering of loads at the same time.

THE VALUE OF RWLL [kg] DIFFERENT TO THE LENGTH OF THE STRAP AND THE NUMBER OF people												
	WLL Loads only		**WLL** 1 person		**WLL** 2 people		**WLL** 3 people		**WLL** 4 people		**WLL** 5 people	
Beam	ASB	*LSB*	ASB	*LSB*	ASB	*LSB*	ASB	*LSB*	ASB	*LSB*	ASB	*LSB*
2 m	3000	*1750*	2400	*1150*	2350	*1100*	2300	*1050*	2250	*1000*	2200	*950*
3 m	3000	*1500*	2400	*900*	2350	*850*	2300	*800*	2250	*750*	2200	*700*
4 m	3000	*1250*	2400	*650*	2350	*600*	2300	*550*	2250	*500*	2200	*450*
5 m	2500	*1000*	1900	*400*	1850	*350*	1800	*3000*	1750	*250*	1700	*200*
6 m	2000	*750*	1400	*150*	1380	*100*	1250	*50*	1250	*n/a*	1200	*n/a*
7 m	1500	*500*	900	*n/a*	850	*n/a*	800	*n/a*	750	*n/a*	700	*n/a*

5.1. GENERAL PRECAUTIONS:

- **The Reduced Work Load Limit (RWLL) must not be exceeded when lifting/lowering loads when people are protected by internal carriages.**
- **The LSB cannot be used simultaneously for lifting/lowering loads and personal protection if the RWLL is negative.**

- For information on personal protection, see Section 4!
- For information on lifting loads, see Section 3!

6. SECTION 6 – USE FOR RESCUE PURPOSES ACCORDING TO EN 1496/B (PPE)…...

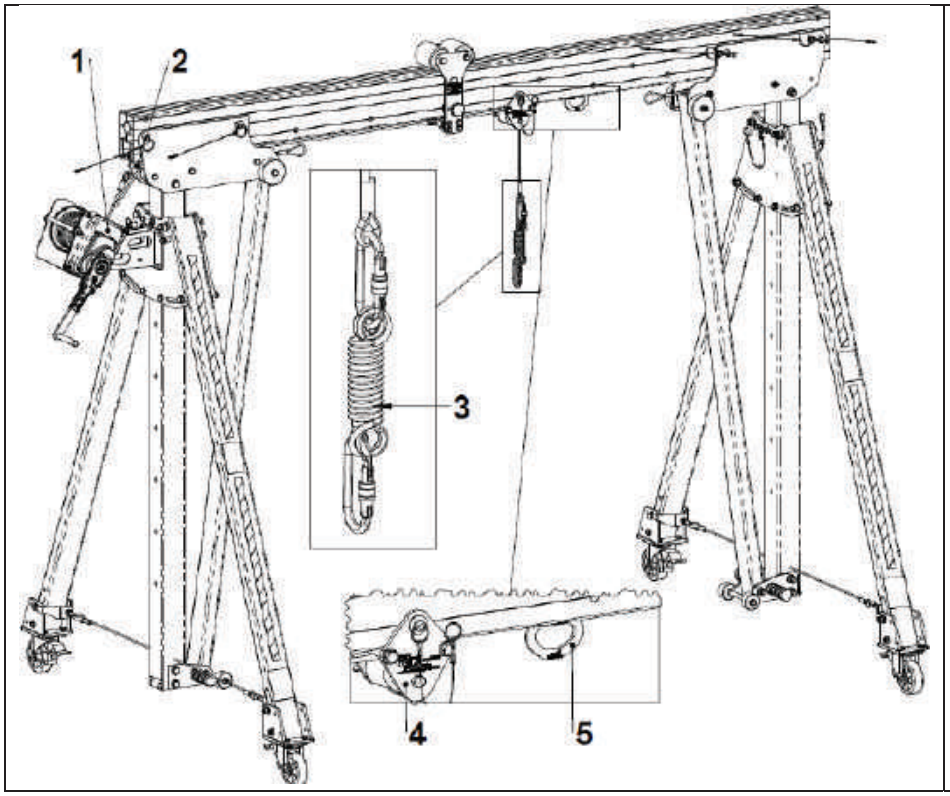
6.1. GENERAL PRECAUTIONS FOR EMERGENCY USE:

- When using the ASB/LSB and RUP 50x-C/RUP50x-D/CRW200/CRW300, an additional fall arrest system (according to EN 363) must be used.
- Fall arrest and rescue/descent systems used together with this device must conform to the effective European standards (EN 795 and the TS 16415 document for anchor devices; EN 362 for connectors; EN 361 for full body harnesses; EN 360; EN 1496 for lifting rescue equipment; EN 1497 for rescue and descent harnesses; EN 341 for rescue and descent equipment).

6.2. ASB USE FOR RESCUE PURPOSES

- The ASB/LSB can be used for rescue purposes in combination with the rescue lifting devices RUP 50x-C/RUP 50x-D and CRW200/CRW300.
- RUP50x-D units may only be installed on side support plates having two additional holes – see Section 2, Section 9.2 and 9.3.
- See Section 2, section 10 for the installation of the rescue lifting device rope.
- For installation of the CRW200/CRW300 units, see Section 6.
- The rescue lifting device RUP50x-C/RUP 50x-D must be used with the safety shock absorber SDW installed at the end of the wire rope!

CAUTION! Loads may not be lifted/lowered during rescue operations.



1. Lifting rescue device
2. Support roller
3. Energy absorber SDW
4. ASB500-240 sheave for beam
5. ASB500-280EN795/B Anchorage point for a second device (e.g. retractable type fall arrester CR/WR)

6.3. USE OF LIFTING EQUIPMENT AS EQUIPMENT PROTECTING AGAINST FALLS FROM HEIGHTS

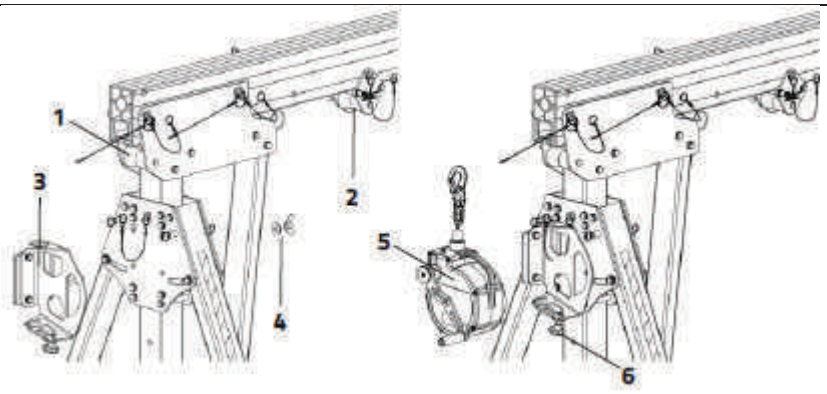
Such a device may be used as equipment protecting against falls from heights according to the Directive 2009/104/EC Annex II Section 3.1.2.

- The use of working equipment by the staff to lift loads should always be supervised.
- Ensure adequate communication with the person lifted using a stand. Always ensure their safe rescue in the case of a hazard.

- During rescue operation, always use the SDW energy absorber connected to the end of a working rope of the lifting rescue device.
- Never exceed the WLL value.
- Special care must be taken. Do not overload parts of the device. When using load handling equipment for rescue purposes, the user must pay special attention and often check the condition of the units of the kit (rope, pulleys, anchor points).
- The safety factor should be at least 10:1 for safety purposes.
- For safety reasons, it is more reasonable to use two lifting devices (one for load handling and the other one for personal protection).

6.4. CRW200 RESCUE HOIST INSTALLATION

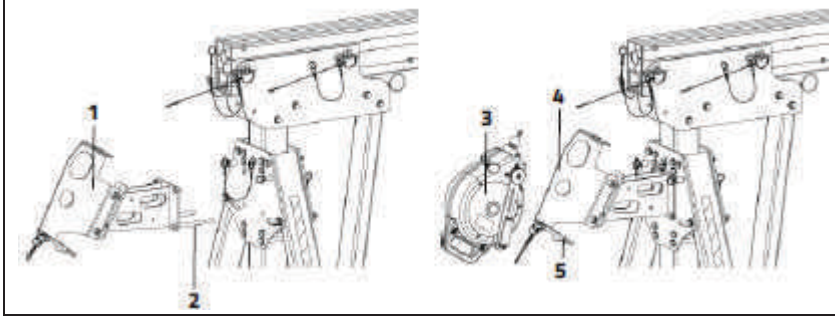
The CRW200 can be installed on the side support plate of the ASB/LSB using the ASB500-570 bracket. The support should be fitted with an ASB500-180 support roller. The beam should be fitted with an ASB500-240 beam roller.



1. ASB500-180 – support roller
2. ASB500-240 – beam roller
3. ASB500-570 CRW200 device bracket
4. M12 wing nut and large washer for bracket locking.
5. CRW200
6. Tighten the knob

6.5. CRW300 RESCUE HOIST INSTALLATION

The CRW300 can be installed on the side support plate of the ASB/LSB using the ASB500-580 bracket. The support should be fitted with an ASB500-180 support roller. The beam should be fitted with an ASB500-240 beam roller.



1. ASB500-580 CRW300 device bracket
2. Fix with two M12 wing nuts
3. CRW300
4. ASB500-580 CRW300 device bracket
5. Lock the CRW300 with the lever.

USAGE SHEET

The user is obliged to maintain the operation sheet and to fill it with the required information. Before the first use of the device, the operation sheet should be filled only by a person competent in the field of personal protection equipment at the site of the user. All information regarding the equipment, such as periodic inspections, repairs, reasons for decommissioning should be recorded in the operation sheet by a competent person. The operation sheet should be maintained throughout the entire useful life of the product. Do not use the equipment without a valid operation sheet.

CATALOGUE NUMBER HOISTING	
SERIAL NUMBER OF THE BEAM	
SERIAL NUMBER OF THE SUPPORTS (A/B)	
SERIAL NUMBER OF THE LOAD CARRIAGE	
DATE OF MANUFACTURE	
DATE OF PURCHASE	
DATE OF FIRST APPROVAL FOR USE	
USER NAME	

REGISTER OF PERIODIC INSPECTIONS, MAINTENANCE AND REPAIRS

DATE	INSPECTION/REPAIR CAUSE	RECORDED FAULTS, PERFORMED REPAIRS	NAME AND SIGNATURE OF THE AUTHORISED PERSON	DATE OF NEXT INSPECTION

USAGE SHEET

The user is obliged to maintain the operation sheet and to fill it with the required information. Before the first use of the device, the operation sheet should be filled only by a person competent in the field of personal protection equipment at the site of the user. All information regarding the equipment, such as periodic inspections, repairs, reasons for decommissioning should be recorded in the operation sheet by a competent person. The operation sheet should be maintained throughout the entire useful life of the product. Do not use the equipment without a valid operation sheet.

EQUIPMENT MODEL AND TYPE	SECURITY CARRIAGE FOR CONNECTING THE EQUIPMENT PROTECTING AGAINST FALLS FROM HEIGHTS (EN 795/B)
PART NO.	ASB500-280
SERIAL NUMBER	
DATE OF MANUFACTURE	
DATE OF PURCHASE	
DATE OF FIRST APPROVAL FOR USE	
USER NAME	

REGISTER OF PERIODIC INSPECTIONS, MAINTENANCE AND REPAIRS

DATE	INSPECTION OR REPAIR CAUSE	RECORDED FAULTS, PERFORMED REPAIRS	NAME AND SIGNATURE OF THE AUTHORISED PERSON	DATE OF NEXT INSPECTION