



## Assembly & Operating Instructions

for

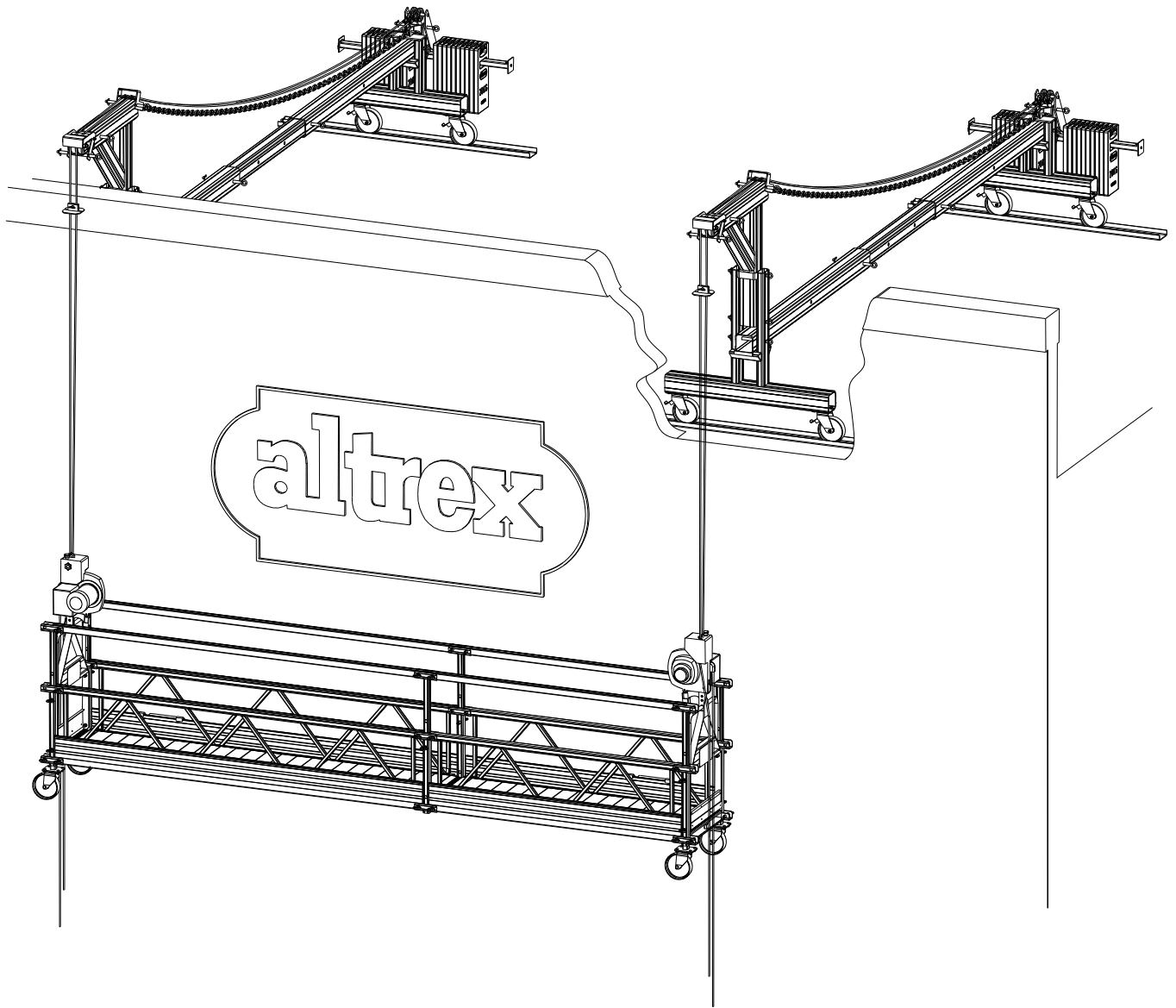
## Temporary Suspended Platform System

## Model MHB



Conform to  
EN-1808 – April 2015  
Machinery Directive 98/37 EC

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A trained person must always supervise the installation procedure.  
Local safety regulations and codes must be understood and followed.  
All persons operating this equipment must read and completely understand this manual.  
Any operation in violation of these instructions is at the operator's own risk.  
Keep this manual with the equipment at all times!  
This document will supersede previous versions.

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**Zwolle / the Netherlands**  
**Date: December 2015**  
**Version: 2.0**

All dimensions and data are indicative only. Specifications are subject to alteration without notice.  
The user must ensure that the equipment complies with local rules and regulations.

## **Preface**

This document is meant for owners, assemblers and users of the Altrex Modular Suspended Platform System. [It should yield safe](#) use of the Modular Suspended Platform System, as a complete installation, consisting of roof-suspensions, hoists, stirrups and modular platforms. Base for this manual is the European Standard EN 1808 and Altrex own interpretation of safe use in practice.

This document contains general information, assembly instructions and user's manuals of Altrex MHB suspended platform equipment. This document will be provided by your Altrex distributor and must be available to his customers. Contact your distributor when more manuals are required.

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# 1 DEFINITIONS

- **Suspended platform:**  
that portion of SAE assembly designed to carry persons and their equipment
- **Temporary suspended access equipment (TSAE):**  
SAE systems that are temporarily installed on a building or structure in order to carry out specific construction tasks on a work site.  
TSAE may consist of a platform (TSP) and a suspension rig that are assembled at site prior to carrying out the task. TSAE are then dismantled and removed from the site on completion of the work for which they were installed and may be reused elsewhere.
- **Hoist:**  
electrical device that is capable of climbing or descending a steel wire rope, while carrying a load, like e.g. a work platform
- **Central control box (CCB):**  
control panel from which the hoists can be operated
- **Suspension rig:**  
portion of the SAE from which a platform is suspended
- **Roof beam:**  
static beam where the stability is assured by counterweights  
consists of a long beam with an outboard and inboard portion
- **Suspension rope:**  
active steel wire rope, mounted on the suspension rig, carrying the suspended load
- **Stirrup:**  
construction to provide a suitable connection between a work platform and a specific type of hoist
- **End-stirrup**  
stirrup that is located at the very end of a work platform, also functioning as an end-guardrail
- **Walkthrough-stirrup**  
stirrup that is located at a certain distance from the outer end of a platform from which a cantilevered section of platform occurs.
- **Work Load Limit:**  
(= WLL) maximum load that a piece of equipment is authorized to sustain as designated by the manufacturer. The load capacity of the work platform is also based upon the WLL of a hoist, just like the capacity and required counterweight of a roof beam.
- **Load capacity and configuration table:**  
list of allowed platform lengths that, in combination with hoist capacity and type of stirrup, yield a maximum loadability.
- **Securable quickpin**  
main device to connect the knock-down elements of the suspended platform equipment

## 2 SAFETY GUIDELINES TO PREVENT ACCIDENTS

### 2.1 General

DANGER!	Don't reduce on safety, do not mix and match!
WARNING!	Do not integrate other than original Altrex MHB platform components!
CAUTION!	Remember safety is the responsibility of both ... you and the operator!

**Severe injury or death can result from improper assembly or use of the TEMPORARY SUSPENDED PLATFORM SYSTEM (MHB).**

**All suspended platform systems must be assembled as detailed in chapter 3.5 and chapter 4.5 "load capacity and configuration tables".**

#### 2.1.1 Description

- The temporary suspended platform system is designed according to the European Standard EN1808 and is in accordance with the demands of machine instructions and conform CE.
- The installation includes the suspended platform, stirrups, the electro mechanical hoists and its' safety devices and roof beams.
- The installation is applied in construction, inspection and maintenance of façades, chimneys, towers, etc.
- The installation may not be used for activities in silos, unless a number of conditions are met. Please contact your supplier for further details.
- For technical specifications of the installation see next pages.
- The installation is not meant to be used as an elevator for persons or goods.

#### 2.1.2 General use

- The hoists are operated with the central control box on the MHB platform.
- The power supply cable must have a strain relief.
- The hoists can be operated in the following ways:
  - UP / DOWN Hoists rise / descend at the same time
  - Choice switch LEFT / RIGHT In the position LEFT or RIGHT, only one hoist at a time will be operated when using the UP / DOWN switch. A possible platform slope may be corrected that way.

The electrical diagram is pictured on the inside of the lid of the central control box.

The MHB may only rise and descend vertically. The MHB must be kept in a horizontal position while rising, descending and in operational position. See chapter 10 for operating of the hoists.

- In case of emergency the main power supply can be interrupted with the EMERGENCY - OFF - button.
- A power point is available coming from the central control box for the use of electrical hand tools. Only grounded or double insulated electrical equipment may be used.
- Be aware that these safety guidelines are not all inclusive. Proper training for all individuals that assemble, re-assemble, dismantle or use this equipment is mandatory.
- Despite not mandatory, for additional safety a fall-arrest-system can be used. The fall-arrest-system can be attached to the special openings in the end stirrups.



- The platform may only be assembled, disassembled or modified under the direction of an authorised person and by employees who have received adequate training for the intended work.
- The platform is intended for horizontal position of the deck. Limit switches activated by an eventual inclination of more than 14° in length direction will secure safe operation.

### 2.1.3 Conditions of use

- Only authorized, trained and physically fit persons may assemble and operate this equipment.
- Physical, environmental and operating conditions for the equipment:
  - Temperature range                      between -20°C and +55°C
  - Humidity range                            between 30% and 95%
  - Altitude above sea level                up to 1200 meter
  - Contaminants                              degree of protection IP 54
  - Wind speed                                 wind force not exceeding 6 Beaufort (13.8 m/s)
- An earth leakage circuit breaker (ELCB) of 30 mA and an automatic fuse of sufficient amperage (type C) must be used at the power source.
- All electrical equipment should be grounded or double insulated and executed according the concerning regulations

### 2.1.4 Manual

- Use only the complete document “Altrex Assembly & Operating Instructions for Temporary Suspended Platform System, Model MHB”.
- Marked and only complete copies of the “Altrex Assembly & Operating Instructions for Temporary Suspended Platform System, Model MHB” are on request available at the supplier of your suspended platform system.
- Do not make incomplete copies of this manual by yourself.
- This document is restricted to the temporary suspended platform system manufactured by Altrex.
- Act according to this document.
- This document is to be kept with/on the temporary suspended platform system.
- Additional copies of (warning) labels are available should the original labelling become damaged, obscured or removed. Contact your supplier.

## 2.2 Use

### 2.2.1 Do's

- Before using the equipment, the operator(s) must:
  - read and fully understand the contents of this manual;  
(serious injuries to personnel may result if the instructions are not followed)
  - carry out a check and make sure that the equipment is safe and in perfect working condition;  
(check after installation, daily and after every emergency-stop)
  - check the suspended platform system to ensure stability at all times;
  - check for obstructions along the travel path of the platform;
  - make sure an area is available to allow personnel to get on and off the platform safely;
  - make sure the area around and below the platform system is closed or safe for passers-by.  
(e.g. barriers, roof protected walkways, etc.)
  - check all connections, hoists, roof beams and counterweight
  - examine the installation according to the checklist, see chapter 9.
- Use gloves to avoid injuries while assembling or dismantling the suspended platform system.
- Only use original suspended platform system components of Altrex.
- Inspect components of the suspended platform system when received. Do not assemble or use a suspended platform system unless all components are present and fitted.
- Be sure to place quick-pins according to the assembly-instructions. Be sure that each quick-pin is locked.
- Use only hardware furnished by the hoist manufacturer.
- Guard rails must be used extended to the proper height at all times.
- Keep platform deck free from debris (especially oil or grease, which can cause a slipping hazard) and keep the platform levelled at all times.
- Failures in the installation, especially in hoists, slack rope devices or wire ropes, should be reported to the responsible person immediately.
- In case of emergency one should always be able to contact someone on the ground (e.g. by mobile phone).
- The installation should be operated by 2 persons at least.
- Accessing and leaving the MHB is allowed on the ground only.
- Tools should be secured from falling.
- Consult the manual of the hoists in case of any failure in its' functioning.

## 2.2.2

### Don'ts



DANGER – metal conducts electricity. Do not ever use metal platforms near any electrical current. Contact the local electrical utility for recommendations.



Do not use the equipment as described in this manual for operation in silo's, shafts and underground access. Special precautions are required for these specific applications.



Do not weld anything to the component parts of this equipment.



Do not assemble or use platform unless all components are present and in use.



Do not use the platform if it is exposed to excessive heat (as in the case of a fire). Remove platform from service. (Structural strength may be affected)



Do not use acids or other corrosive substances that can seriously affect the strength of aluminium. Should such substances come in contact with this platform, they must be immediately cleaned from the equipment by flushing with water and neutralizing as quickly as possible. Remove all platform sections suspected or subjected to corrosive attack from service.



Do not modify this platform in any way! This platform has been designed, engineered, manufactured and tested to exacting standards.



Do not apply impact loads to platform (dropping anything on the deck of the platform).



Do not overload or extend platform's total length or loading beyond loading and configuration tables, see chapter 3 and chapter 4.

### **2.2.3 Terminating use**

In the following circumstances the installation should be put out of order and into parking mode immediately:

- generally whenever one of the conditions of use are not met
- if any of the system components do not operate properly or if any other circumstances may jeopardise safety - call your supervisor for assistance.
- wind force exceeding 6 Beaufort (13.8 m/s)
- approaching storm
- at the end of each working day

Parking mode = lower the MHB onto the ground.

- Lower the MHB onto the ground.
- When leaving the MHB, the power supply cable should be removed from the main power supply source.
- Make sure that the installation is not accessible by unauthorised persons.

### **2.2.4 Relocating**

- Lower the MHB onto the ground
- Eject wire ropes from the hoist
- Move the MHB to the wanted position
- Move roof suspensions to the corresponding new position. See chapter 6 for relocating roof suspensions.
- Once it is certain that roof suspensions:
  - are in the right location,
  - have the same suspension rope distance as the distance between the hoists,
  - have been installed properly,
  - have enough counterweight installed,
  - have their brakes applied,
  - have end stop limiters attached to the suspension ropes,

the suspension ropes can be re-entered into the hoists, and the rope tensioning ballast weights can be mounted onto the suspension ropes, at a height of approximately 20cm above the ground.

### 3 TEMPORARY SUSPENDED PLATFORM SYSTEM "MODEL MHB-60"

#### 3.1 General

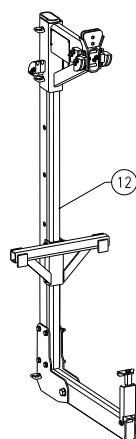
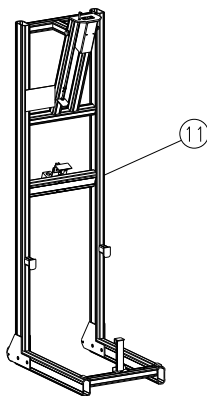
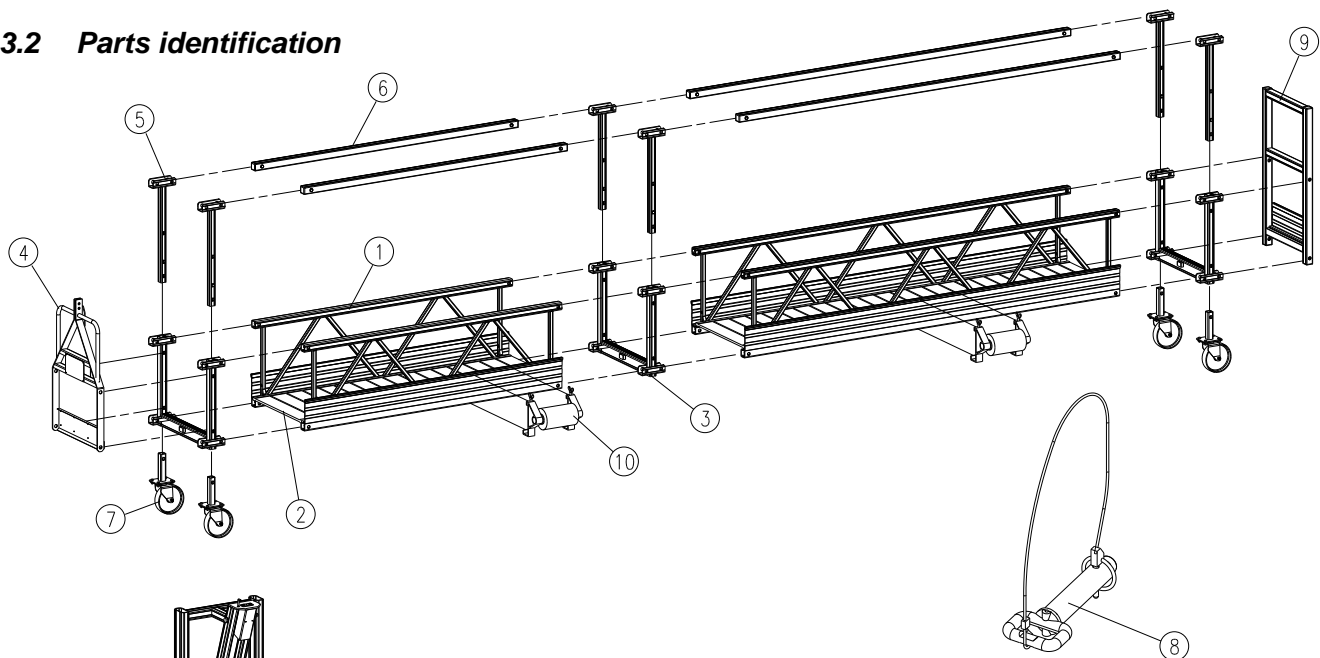
##### 3.1.1 Description

The Altrex MHB-60 platform is a work platform composed of single elements to create a temporary work area, which can be suspended and lifted by hoists.

##### 3.1.2 Use

The Altrex MHB-60 work platform is meant to be used for "medium duty" jobs (<300kg/m<sup>2</sup>) such as finishing, building, inspection and maintenance on facades and ceilings of buildings, bridges and other structures. Only the configurations indicated at the "Load capacity and configuration tables" in section 3.5 may be used.

#### 3.2 Parts identification



Pos.	Description	Part no.	Weight (kg)
1	Sideframe 0,5m	421005	3,0
	Sideframe 1m	421001	6,0
	Sideframe 2m	421002	10,6
	Sideframe 3m	421003	17,4
2	Aluminium deck 0,5m	422805	3,0
	Aluminium deck 2m	422820	12,2
	Aluminium deck 3m	422830	18,3
3	U-frame	421501	4,1
4	End-stirrup	423016	18,2
5	Guardrail post	421513	0,9
	Guardrail 0,5m	422005	0,9
	Guardrail 1m	422001	1,7
	Guardrail 2m	422002	3,0
6	Guardrail 3m	422003	4,3
	Guardrail 3m	422003	4,3
7	Castor wheel	423010	3,9
8	Quickpin	424001	0,3
9	End-guardrail	423072	4,7
10	Wall roller	423030	2,8
11	Walk-through-stirrup	423019	53,0
12	Walk-through-stirrup CE	423021	30,5



### 3.5 Load capacity and configuration tables MHB-60

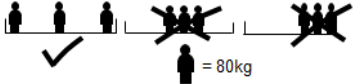

#### 3.5.1 Standard temporary platform system model MHB with "END-STIRRUPS"

The column 500 kg is valid for the Titan 503

The column 650 kg is valid for the Titan 653

The column 600 kg is valid for the Astro E86-CTO and Bisomac210 1-Phase

The column 800 kg is valid for the Astro E89-CTO and Bisomac210 3-Phase


 <p>Zorg voor een symmetrische opbouw. Überprüfen Sie, ob der Aufbau symmetrisch ist. Une construction symétrique est obligatoire. Check if the construction is built up symmetrical.</p>			<p>Belastbaarheid is inclusief personen Tragfähigkeit ist inklusif Personen Chargabilité est inclusivement personnes</p> <p><b>Work Load Limit (WLL)</b> Takel / Winde / Treuil / Hoist</p>								 <p>Altrex B.V. Postbus 3010 8003 CD Zwolle (NL) www.altrex.nl</p>	
<p>vloerdruk / Bodendruck / charge de surface / floorpressure <b>max. 300kg/m<sup>2</sup> (≤ 8m)</b> <b>max. 200kg/m<sup>2</sup> (&gt; 8m)</b></p>			500kg		600kg		650kg		800kg			
Totale lengte Gesamtlänge Longeur Plateforme Total length	Voorbeeld opbouw Beispielaufbau Example des Modules Example arrangement	Eigen gewicht Propre poids Self weight	MAX. Belasting / Nutzlast / Charge / Load [kg]	MAX. NO. [-]	MAX. Belasting / Nutzlast / Charge / Load [kg]	MAX. NO. [-]	MAX. Belasting / Nutzlast / Charge / Load [kg]	MAX. NO. [-]	MAX. Belasting / Nutzlast / Charge / Load [kg]	MAX. NO. [-]		
[m]	[ - ]	[ kg ]	[ kg ]	[ - ]	[ kg ]	[ - ]	[ kg ]	[ - ]	[ kg ]	[ - ]		
2	2	273	380	2	380	2	380	2	380	2		
3	3	295	570	3	570	3	570	3	570	3		
4	2-2	323	650	4	770	4	770	4	770	4		
5	3-2	346	630	5	830	5	930	5	960	5		
6	3-3	368	610	6	810	6	910	6	1150	6		
7	2-3-2	397	580	6	780	7	880	7	1180	7		
8	3-2-3	419	560	6	760	8	790	8	790	8		
9	3-3-3	441	530	6	730	8	730	8	730	8		
10	3-2-2-3	470	510	5	520	6	520	6	520	6		
11	3-2-3-3	492	410	4	410	4	410	4	410	4		
12	3-3-3-3	515	330	3	330	3	330	3	330	3		
13	3-2-3-2-3	543	260	2	260	2	260	2	260	2		
14	3-3-2-3-3	566	210	2	210	2	210	2	210	2		
15	3-3-3-3-3	588	170	1	170	1	170	1	170	1		

Hangbrug met eindbeugels  
Arbeitsbühne mit Endbügel  
Echafaudage volant avec étriers de suspension  
Suspend platform with end-stirrups

Voor takeltype zie handleiding.  
Für Typ der Winden siehe die Betriebsanleitung.  
Pour type de treuil, voir le manuel.  
For type of hoist see manual.

Notified Body: 0515

Machine Richtlijn /  
Maschinenrichtlinie /  
Directive sur les Machines /  
Machinery Directive  
(98/37/EU)



Neem contact op met uw Altrex dealer indien uw toe te passen configuratie niet vermeld wordt in deze tabel.  
Konsultieren Sie ihren Altrex Lieferant wenn die gewünschte Konfiguration nicht erwähnt ist in diese Tabelle.  
Contacter votre revendeur Altrex lorsque la configuration désirée n'est pas mentionnée dans ce tableau.  
Please be sure to consult with your Altrex supplier on factory approval for any configurations not listed in the table.

### 3.5.2 Standard temporary platform system MHB with "WALK-THROUGH-STIRRUP"

The column 500 kg is valid for the Titan 503  
 The column 650 kg is valid for the Titan 653  
 The column 600 kg is valid for the Astro E86-CTO and Bisomac210 1-Phase  
 The column 800 kg is valid for the Astro E89-CTO and Bisomac210 3-Phase

Belastbaarheid is inclusief personen  
 Tragfähigkeit ist inklusiv Personen  
 Chargabilité est inclusivement personnes

**Work Load Limit (WLL)**  
 Takel / Winde / Treuil / Hoist

Zorg voor een symmetrische opbouw.  
 Überprüfen Sie, ob der Aufbau symmetrisch ist.  
 Une construction symétrique est obligatoire.  
 Check if the construction is built up symmetrical.

Totale lengte Gesamtlänge Longeur Plateforme Total length	Voorbeeld opbouw Beispielaufbau Exemple des Modules Example arrangement	Kabelafstand Tragseilabstand Distance entr'axes étriers Cable distance	Eigen gewicht Eigen Gewicht Propre poids Self weight	500kg		600kg		650kg		800kg	
				MAX. Belasting / Nutzlast / Charge / Load	MAX. NO.	MAX. Belasting / Nutzlast / Charge / Load	MAX. NO.	MAX. Belasting / Nutzlast / Charge / Load	MAX. NO.	MAX. Belasting / Nutzlast / Charge / Load	MAX. NO.
[m]	[-]	[m]	[kg]	[kg]	[-]	[kg]	[-]	[kg]	[-]	[kg]	[-]
2	2	2	308	380	2	380	2	380	2	380	2
3	3	2	330	570	3	570	3	570	3	570	3
4	2-2	3	359	620	4	770	4	770	4	770	4
5	3-2	4	381	590	5	790	5	890	5	960	5
6	3-3	5	404	570	6	770	6	870	6	1150	6
7	2-3-2	5 - 6	432	540	6	740	7	840	7	1140	7
8	3-2-3	6 - 7	455	520	6	720	8	820	8	1120	8
9	3-3-3	5 - 8	477	500	5	700	8	800	9	1100	9
10	3-2-2-3	6 - 9	506	470	5	670	7	720	8	720	8
11	3-2-3-3	7 - 10	528	450	5	520	6	520	6	520	6
12	3-3-3-3	8 - 11	550	410	4	530	6	530	6	530	6
13	3-2-3-2-3	7 - 12	579	400	4	540	6	540	6	540	6
14	3-3-2-3-3	8 - 12	601	370	4	560	6	560	6	560	6
15	3-3-3-3-3	9 - 12	624	340	3	550	6	590	6	590	6
16	3-3-2-2-3-3	10 - 12	652	320	3	460	5	460	5	460	5
17	3-3-2-3-3-3	11 - 12	674	300	3	370	4	370	4	370	4
18	3-3-3-3-3-3	12 - 13	697	280	3	300	3	300	3	300	3
19	3-3-2-3-2-3-3	13 - 14	725	240	2	240	2	240	2	240	2
20	3-3-3-2-3-3-3	14 - 15	748	190	1	190	1	190	1	190	1
21	3-3-3-3-3-3-3	15 - 16	770	150	1	150	1	150	1	150	1



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vloerdruk / Bodendruck / charge de surface /  
 floorpressure  
**max. 300kg/m<sup>2</sup> (≤ 8m)**  
**max. 200kg/m<sup>2</sup> (> 8m)**

Hangbrug met doorloopbeugels  
 Arbeitsbühne mit Durchlaufbügel  
 Echafaudage volant avec étriers de passage  
 Suspend platform with walk-through stirrups

Voor takeltype zie handleiding.  
 Für Typ der Winden siehe die Betriebsanleitung.  
 Pour type de treuil, voir le manuel.  
 For type of hoist see manual.

Notified Body: 0515



Machine Richtlijn /  
 Maschinenrichtlinie /  
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 Machinery Directive  
 (98/37/EU)



Neem contact op met uw Altrex dealer indien uw toe te passen  
 configuratie niet vermeld wordt in deze tabel.

Konsultieren Sie Ihren Altrex Lieferant wenn die gewünschte  
 Konfiguration nicht erwähnt ist in diese Tabelle.

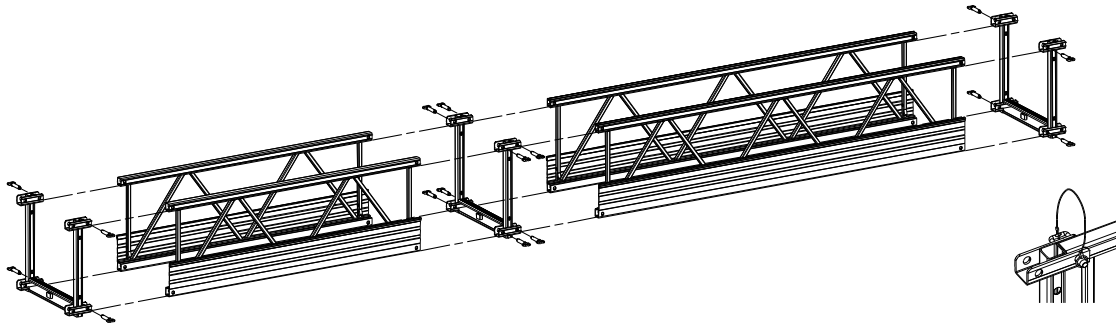
Contacter votre revendeur Altrex lorsque la configuration désirée  
 n'est pas mentionnée dans ce tableau.

Please be sure to consult with your Altrex supplier on factory  
 approval for any configurations not listed in the table.

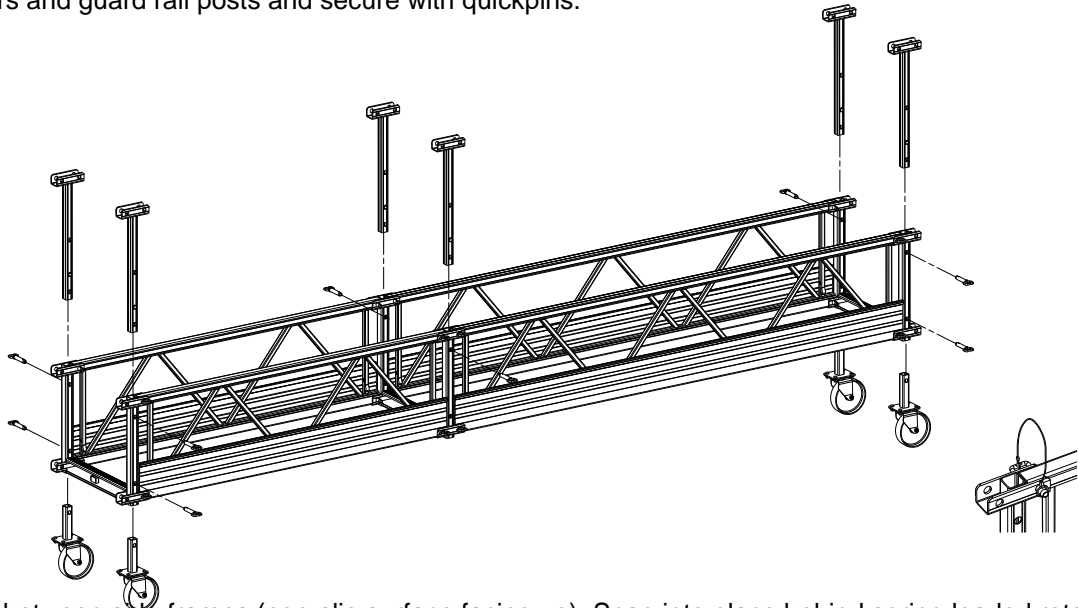


### 3.6 Assembly

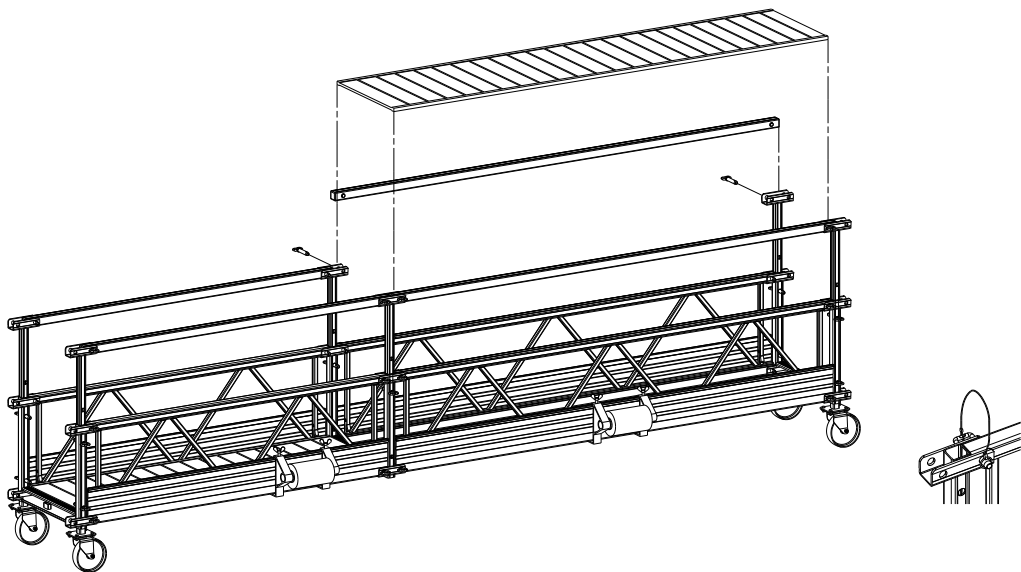
1. Fit the side frames into the U-frames with quickpins. Repeat until the desired platform length is reached.



2. Mount castors and guard rail posts and secure with quickpins.



3. Place decks between side frames (non-slip surface facing up). Snap into place behind spring loaded retaining leverarms. Fit guardrails into guardrail posts and secure with quickpins. Mount wall rollers, if used. For the assembly of end guardrail and/or stirrups see chapter 5.



## 4 TEMPORARY SUPENDED PLATFORM SYSTEM "MODEL MHB-80"

### 4.1 General

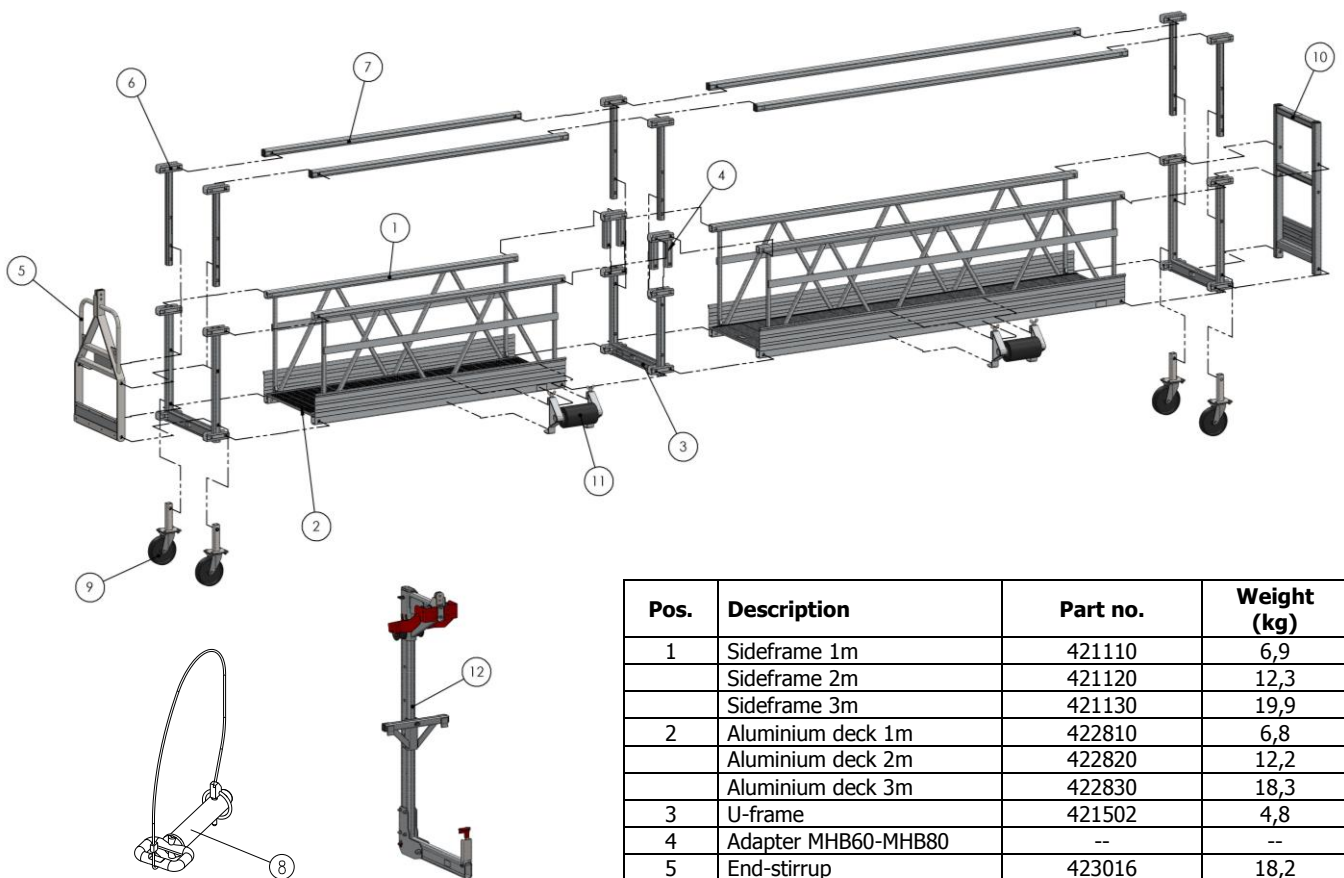
#### 4.1.1 Description

The Altrex MHB-80 platform is a work platform composed of single elements to create a temporary work area, which can be suspended and lifted by hoists.

#### 4.1.2 Use

The Altrex MHB-80 work platform is meant to be used for "medium duty" jobs (<300kg/m<sup>2</sup>) such as finishing, building, inspection and maintenance on facades and ceilings of buildings, bridges and other structures. Only the configurations indicated at the "**Load capacity and configuration tables**" in section 4.5 may be used.

### 4.2 Parts identification



Pos.	Description	Part no.	Weight (kg)
1	Sideframe 1m	421110	6,9
	Sideframe 2m	421120	12,3
	Sideframe 3m	421130	19,9
2	Aluminium deck 1m	422810	6,8
	Aluminium deck 2m	422820	12,2
	Aluminium deck 3m	422830	18,3
3	U-frame	421502	4,8
4	Adapter MHB60-MHB80	--	--
5	End-stirrup	423016	18,2
6	Guardrail post	421513	0,9
	Guardrail 1m	422001	1,7
	Guardrail 2m	422002	3,0
	Guardrail 3m	422003	4,3
8	Quickpin	424001	0,3
9	Castor wheel	423010	3,9
10	End-guardrail	423072	4,7
11	Wall roller	423030	2,8
12	Walk-through-stirrup CE	423021	30,5

### 4.3 Required components, parts list and part weight for standard platform system MHB-80

Parts list end-stirrups

description	art.no.	weight	Parts list end-stirrups																		
			1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	
Sideframe 1m MHB-80	421110	6,9	2																		
Sideframe 2m MHB-80	421120	12,3		2		4	2		4	2		4	2		4	2		4	2		
Sideframe 3m MHB-80	421130	19,9			2		4	2	4	2	4	6	4	6	8	6	8	10	8	10	12
U-frame	421501	4,1																			
Adapter MHB60-MHB80	421503	0,9																			
U-frame MHB-80	421502	4,8	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	7	7
Guardrail post	421513	0,8	4	4	4	6	6	6	8	8	8	10	10	10	12	12	12	14	14	14	14
Alu deck 1m	422810	6,8	1																		
Alu deck 2m	422820	12,2		1		2	1		2	1		2	1		2	1		2	1		2
Alu deck 3m	422830	18,3			1		1	2	1	2	3	2	3	4	3	4	5	4	5	6	6
Guardrail MHB 1m	422001	1,65	2																		
Guardrail MHB 2m	422002	2,97		2		4	2		4	2		4	2		4	2		4	2		4
Guardrail MHB 3m	422003	4,28			2		2	4	2	4	6	4	6	8	6	8	10	8	10	12	12
Quickpin	424001	0,3	24	24	24	38	38	38	52	52	52	66	66	66	80	80	80	94	94	94	94
End-stirrup	423016	18,2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
MHB Wall roller	423030	2,8	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
MHB Castor wheel	423010	3,9	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

Parts list walkthrough-stirrups

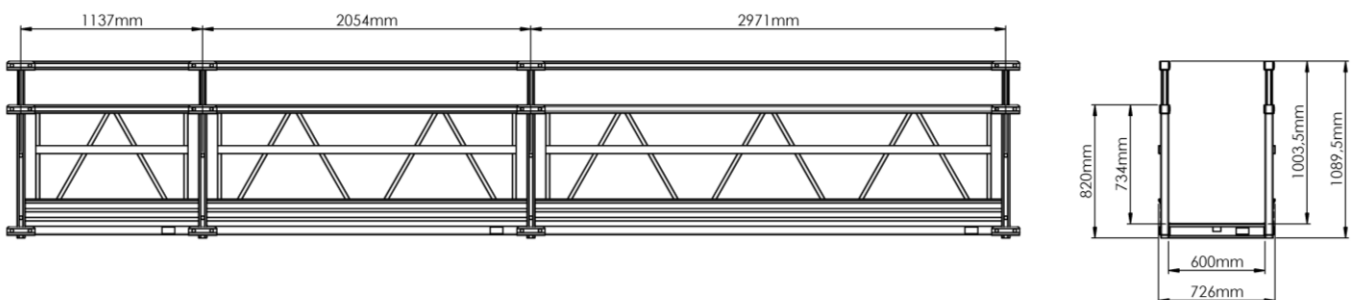
description	art.no.	weight	Parts list walkthrough-stirrups																										
			1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m	21m	22m	23m	24m	25m	26m	
Sideframe 1m MHB-80	421110	6,9	2																										
Sideframe 2m MHB-80	421120	12,3		2		4	2		4	2		4	2		4	2		4	2		4	2		4	2		4	2	
Sideframe 3m MHB-80	421130	19,9			2		4	2	4	2	4	6	4	6	8	6	8	10	8	10	12	10	12	14	12	14	16	14	16
U-frame	421501	4,1																											
Adapter MHB60-MHB80	421503	0,9																											
U-frame MHB-80	421502	4,8	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	8	9	9	9	10	10	
Guardrail post	421513	0,8	4	4	4	6	6	6	8	8	8	10	10	10	12	12	12	14	14	14	16	16	16	18	18	18	20	20	
Alu deck 1m	422810	6,8	1																										
Alu deck 2m	422820	12,2		1		2	1		2	1		2	1		2	1		2	1		2	1		2	1		2	1	
Alu deck 3m	422830	18,3			1		1	2	1	2	3	2	3	4	3	4	5	4	5	6	5	6	7	6	7	8	7	8	
Guardrail MHB 1m	422001	1,65	2																										
Guardrail MHB 2m	422002	2,97		2		4	2		4	2		4	2		4	2		4	2		4	2		4	2		4	2	
Guardrail MHB 3m	422003	4,28			2		2	4	2	4	6	4	6	8	6	8	10	8	10	12	10	12	14	12	14	16	14	16	
Quickpin	424001	0,3	28	28	28	42	42	42	56	56	56	70	70	70	84	84	84	98	98	98	112	112	112	126	126	126	140	140	
End-guardrail MHB	423072	4,7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
MHB Wall roller	423030	2,8	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
MHB Casto wheel	423010	3,9	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	

**NOTE:** The here given parts lists are generating the least number of required parts. Other configurations are allowed as well, e.g. a 6m MHB platform built with 2 x 3m side frames can also be composed of 3 x 2m side frames, which also generates a 6m MHB platform.

For a total length of the platform up to 9m an additional 3 sections may be used, for greater length and additional 4 sections may be used.

It is allowed to use MHB-60 U-frames with a MHB60-MHB80 Adapter to create an MHB-80 platform. This requires an additional 4 quickpins per U-frame.

### 4.4 Dimensions





#### 4.5.2 Standard temporary platform system model MHB with "WALK-THROUGH-STIRRUPS"

The column 500 kg is valid for the Titan 503  
 The column 650 kg is valid for the Titan 653  
 The column 600 kg is valid for the Astro E86-CTO and Bisomac210 1-Phase  
 The column 800 kg is valid for the Astro E89-CTO and Bisomac210 3-Phase

<p>Zorg voor een symmetrische opbouw.                      Überprüfen Sie, ob der Aufbau symmetrisches ist.                      Une construction symétrique est obligatoire.                      Check if the construction is built up symmetrical.</p>				Belastbaarheid is inclusief personen Tragfähigkeit ist inklusiv Personen Chargabilité est inclusivement personnes							
				Work Load Limit (WLL) Takel / Winde / Treuil / Hoist							
				500kg		600kg		650kg		800kg	
Totale lengte Gesamtlänge Longeur Plateforme Total length	Voorbeeld opbouw Beispielaufbau Exemple des Modules Example arrangement	Kabelafstand Tragseilabstand Distance entr'axes etriers Cable distance	Eigen gewicht Eigen Gewicht Propre poids Self weight	MAX. Belasting / Nutzlast / Charge / Load	MAX. NO.	MAX. Belasting / Nutzlast / Charge / Load	MAX. NO.	MAX. Belasting / Nutzlast / Charge / Load	MAX. NO.	MAX. Belasting / Nutzlast / Charge / Load	MAX. NO.
[ m ]	[ - ]	[ m ]	[ kg ]	[ kg ]	[ - ]	[ kg ]	[ - ]	[ kg ]	[ - ]	[ kg ]	[ - ]
2	2	2	318	380	2	380	2	380	2	380	2
3	3	2	342	570	3	570	3	570	3	570	3
4	2-2	3	375	600	4	770	4	770	4	770	4
5	3-2	4	399	580	5	780	5	880	5	960	5
6	3-3	5	423	550	6	750	6	850	6	1150	6
7	2-3-2	5 - 6	457	520	6	720	7	820	7	1120	7
8	3-2-3	6 - 7	480	500	5	700	8	800	8	1100	8
9	3-3-3	5 - 8	504	470	5	670	7	770	9	1070	9
10	3-2-2-3	6 - 9	538	440	5	640	7	740	8	1040	10
11	3-2-3-3	7 - 10	562	410	4	610	7	710	8	1010	11
12	3-3-3-3	8 - 10	586	390	4	590	6	690	8	990	11
13	3-2-3-2-3	7 - 10	619	360	4	560	6	660	7	960	11
14	3-3-2-3-3	8 - 10	643	330	3	530	6	630	7	930	11
15	3-3-3-3-3	9 - 10	667	310	3	510	5	610	7	910	10
16	3-3-2-2-3-3	9 - 10	701	270	2	470	5	570	6	870	10
17	3-3-2-3-3-3	10 - 11	725	250	2	450	5	550	6	820	9
18	3-3-3-3-3-3	10 - 11	748	230	2	430	4	530	6	830	9
19	3-3-2-3-2-3-3	11 - 12	782	190	1	390	4	490	5	650	7
20	3-3-3-2-3-3-3	12 - 13	806	170	1	370	4	470	5	530	6
21	3-3-3-3-3-3-3	13 - 14	830	150	1	350	3	440	5	440	5
22	3-3-3-2-2-3-3-3	14 - 15	863	-	-	310	3	360	4	360	4
23	3-3-3-2-3-3-3-3	15 - 16	887	-	-	290	3	300	3	300	3
24	3-3-3-3-3-3-3-3	16 - 17	911	-	-	240	2	240	2	240	2
25	3-3-3-2-3-2-3-3-3	17 - 18	945								
26	3-3-3-3-2-3-3-3-3	18 - 19	969								



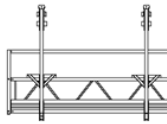
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 floorpressure  
**max. 300kg/m<sup>2</sup> (≤ 8m)**  
**max. 200kg/m<sup>2</sup> (> 8m)**

Hangbrug met doorloopbeugels  
 Arbeitsbühne mit Durchlaufbügeln  
 Echafaudage volant avec etriers de passage  
 Suspend platform with walk-through stirrups

Voor takeltype zie handleiding.  
 Für Typ der Winden siehe die Betriebsanleitung.  
 Pour type de treuil, voir le manuel.  
 For type of hoist see manual.

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 Machinery Directive  
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Neem contact op met uw Altrex dealer indien uw toe te passen  
 configuratie niet vermeld wordt in deze tabel.

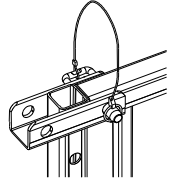
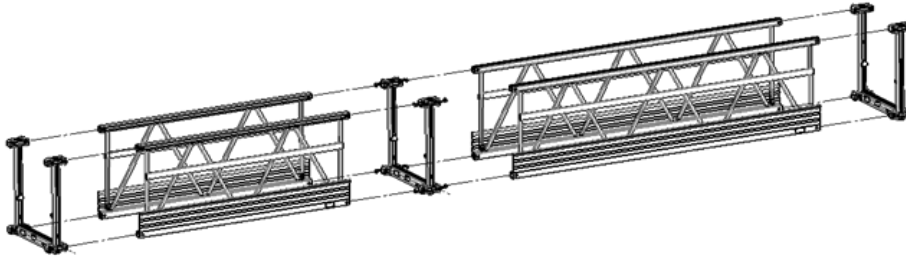
Konsultieren Sie ihren Altrex Lieferant wenn die gewünschte  
 Konfiguration nicht erwähnt ist in diese Tabelle.

Contacter votre revendeur Altrex lorsque la configuration désirée  
 n'est pas mentionnée dans ce tableau.

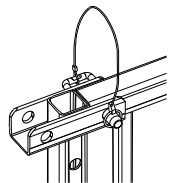
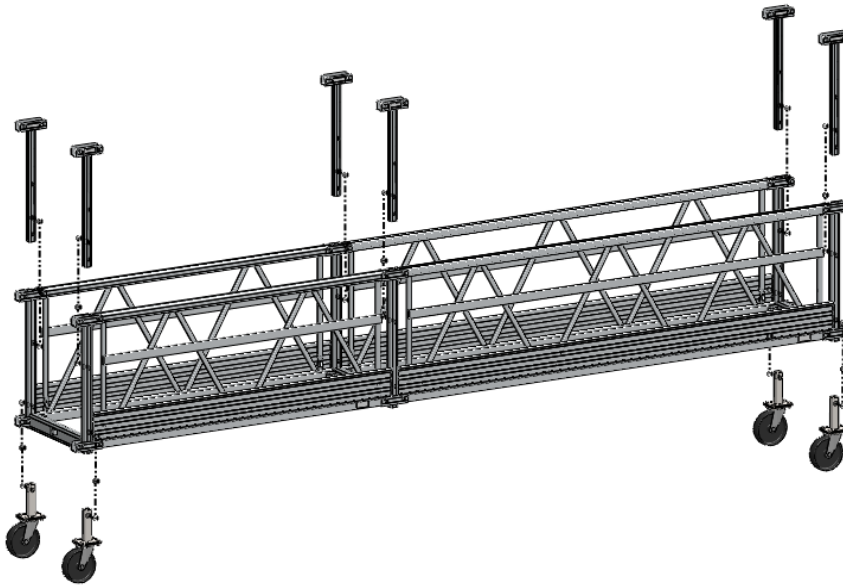
Please be sure to consult with your Altrex supplier on factory  
 approval for any configurations not listed in the table.

## 4.6 Assembly

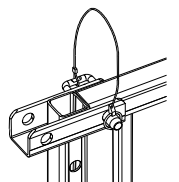
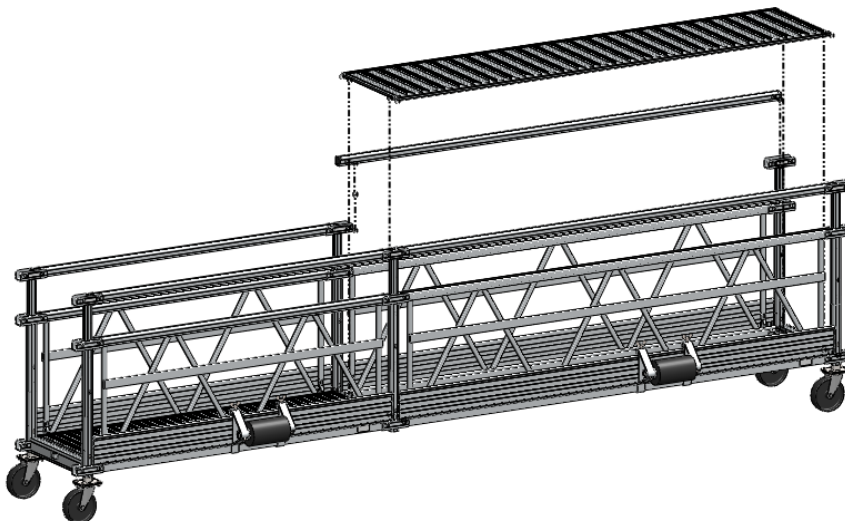
1. Fit the side frames into the U-frames with quickpins. Repeat until the desired platform length is reached.



2. Mount castors and guard rail posts and secure with quickpins.



3. Place decks between side frames (non-slip surface facing up). Snap into place behind spring loaded retaining leverarms. Fit guardrails into guardrail posts and secure with quickpins. Mount wall rollers, if used. . For the assembly of end guardrail and/or stirrups see chapter 5.



## 5 STIRRUPS

### 5.1 General

A stirrup provides a safe means to mount a hoist onto a work platform.

A stirrup is suitable for (a) certain type(s) and brand(s) of hoist(s).

A stirrup is meant for a certain maximum **Work Load Limit (WLL)** that belongs to a certain type of hoist.

### 5.2 Types of stirrups

Basically two types of stirrups can be distinguished: **end-stirrups** and **walk-through-stirrups**.

End-stirrups are located at the very end of a certain length of work platform.

Walk-through-stirrups are located at a certain distance from the end of a platform, which generates a cantilevered section of work platform. See "Load capacity and configuration tables" that apply for the considered work platform, to establish the admissible positions of a stirrup.

### 5.3 End stirrups

#### 5.3.1 End stirrup for all types of hoists

- DESCRIPTION AND USE

The end-stirrup is used on an outer end of a work platform. No separate end guardrail is needed, where there is an end-stirrup. A readable text plate should be present on every end-stirrup, displaying the load and configuration table, similar as the one shown in chapter 3 and 4.

Only use a hoist that the stirrup has been designed for concerning Work Load Limit (WLL) and dimensions as well.

- MOUNTING THE STIRRUP

The stirrup is to be mounted in the following way: The type plate must be on the inside. (See drawing)

Note that the stirrup has to be aligned with the rigging point above!

- The end stirrup is mounted in the U-frame on the outer end of the platform section

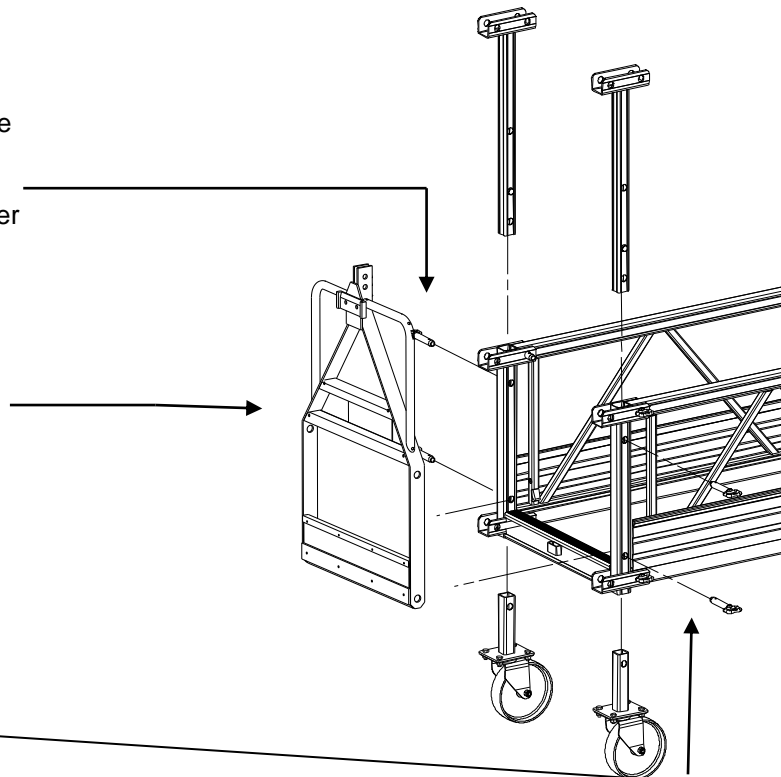
- The end-stirrup is mounted with 4 quick pins.

- Place the stirrup within the U-frame

- Connect both stirrup and guardrail posts with the U-frame by two upper quick pins.

- Type plate at the inside

- Connect both castor-wheels and stirrup with the U-frame by two lower quick pins.



- MOUNTING THE HOIST

See chapter 10, **Attach the hoist to the stirrup**", for a description of the mounting of the hoist to the stirrup.

## 5.4 Walk-through stirrups

### 5.4.1 Walk-through-stirrup for all types of hoists.

- DESCRIPTION AND USE

This walk-through-stirrup consists of a vertical and horizontal aluminium beam that can hinge for transportation, and can be fixed for use. The height on which the hoist is connected to the vertical beam can be adjusted. The stirrup is used on a straight section of MHB work platform when the desired workspace is wider than the maximum distance of hoists that is possible. Walk-through-stirrups are also applied if L-shaped platforms with corner sections are used (see chapter 7).

A separate end guardrail is needed.

On the walkthrough stirrup, a text plate should be present, displaying the load and configuration table, similar as the one shown in chapter 3 and 4.

Only use a hoist that the stirrup has been designed for concerning Work Load Limit (WLL) and dimensions as well.

- MOUNTING THE STIRRUP

The stirrup is to be mounted in the following order:

Note that the stirrup has to be aligned with the rigging point above!

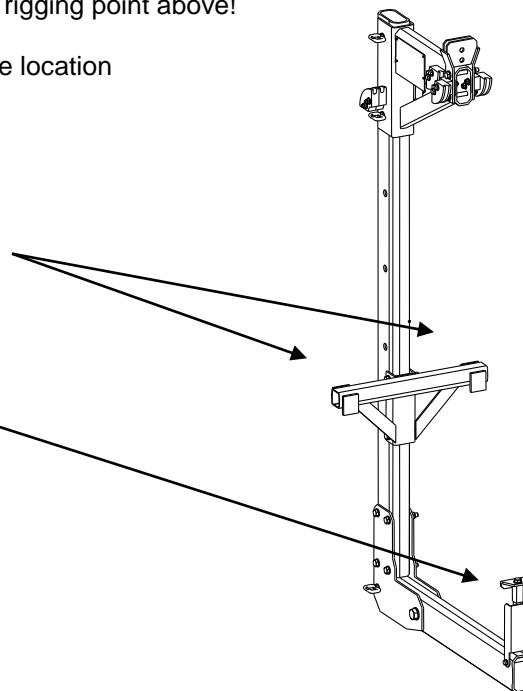
- Make sure that the guardrail is removed at the location where the stirrup is to be located

- Shove the stirrup about halfway underneath the platform

- Lift the stirrup and hook the guardrail hooks onto the guardrail

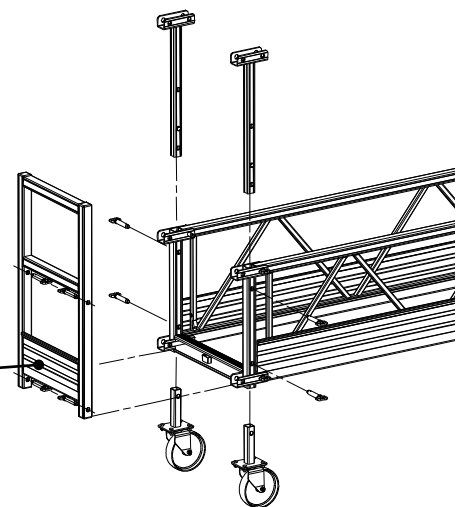
- Swivel the stirrup straight-up

- Mount the bracket onto the toe board and fasten with the washer and nut.



- Mount the guardrail that has been removed at first.

- Mount an end-guardrail.



- MOUNTING THE HOIST

See chapter 10, **Attach the hoist to the stirrup**", for a description of the mounting of the hoist to the stirrup



## 5.4.2 Walk-through stirrup for ASTRO and Bisomac hoists

- DESCRIPTION AND USE

This walk-through stirrup consists of two vertical and two horizontal aluminium beams, connected by cross bars. The stirrup is used on a straight section of MHB work platform when the desired workspace is wider than the maximum distance of hoists that is possible. Walk-through-stirrups are also applied if L-shaped platforms with corner sections are used (see chapter 7).

A separate end guardrail is needed.

On the walkthrough stirrup, a text plate should be present, displaying the load and configuration table, similar as the one shown in chapter 3 and 4.

Only use a hoist that the stirrup has been designed for concerning Work Load Limit (WLL) and dimensions as well.

- MOUNTING THE STIRRUP

The stirrup is to be mounted in the following order:

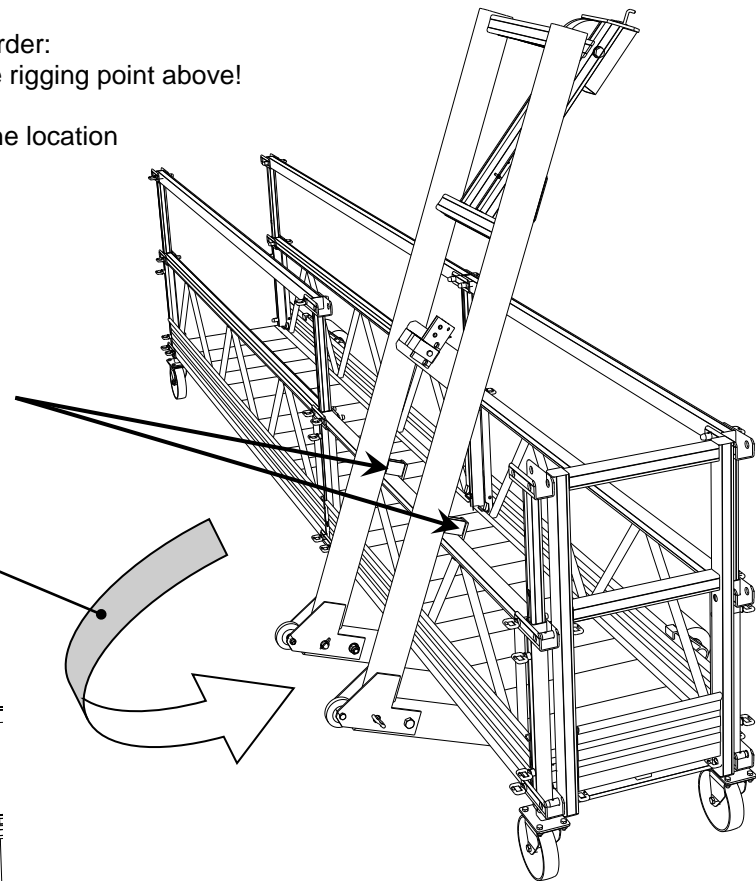
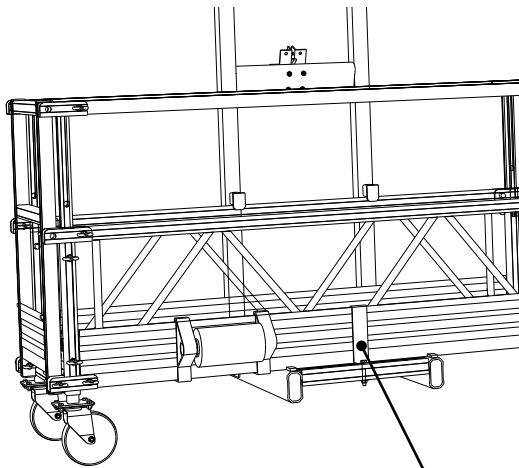
Note that the stirrup has to be aligned with the rigging point above!

- Make sure that the guardrail is removed at the location where the stirrup is to be located

- Roll the stirrup about halfway underneath the platform

- Lift the stirrup and hook the guardrail hooks onto the guardrail

- Swivel the stirrup straight-up



- Mount the bracket onto the toe board and fasten with the washer and nut

- Mount the guardrail that has been removed at first

- Mount an end-guardrail

- MOUNTING THE HOIST

See section 10.1, "**Attach the ASTRO hoist to the stirrup**", for a description of the mounting of the hoist to the stirrup.

## 6 ROOF SUSPENSIONS

### 6.1 General

#### 6.1.1 Description of ROOFBEAMS

##### ROOFBEAMS

- A roof beam is a roof suspension construction meant for the suspension of modular platforms.
- Roof beams are designed and classified for a certain **Work Load Limit (WLL)**.
- Roof beams are used on flat roofs.
- The roof beam construction consists of retractable main tubes (front, middle and rear section), mobile front and rear support stands, a shock absorber, counter weights. It is assembled with securable quickpins.
- Suspension- and safety ropes can be attached to the roof beam. Only ropes, suitable for the used hoist shall be used. See chapter 10 for requirements for ropes.

#### 6.1.2 Use of ROOFBEAMS

- Before assembling the installation, check the load bearing capacity of the roof construction of the building to work on. During normal operation, the roof beam's front support stand carries a maximum load of **1150kg** and the rear supports a maximum of **700kg**.  
To support the load by the roof, it might be necessary to use suitable underlayment for load distribution.

Under extreme conditions these values are higher; the load on the front support stand can be up to **3.000kg**  
Note that the roof must be able to resist the load generated in an extreme case!

- For adaptation to local situations, the distance between support stands can be adjusted to three different lengths, while, the outreach of the front part can be adjusted to three different lengths for the 400/600 models and two different lengths for the 800kg models.
- The front and rear support stands must always be positioned at the same height.
- The roof beam load capacity and the required number of counter weights can be found on the load and configuration tables, see section 6.1.3 or on the type plate of the roof beam.


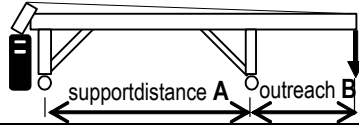
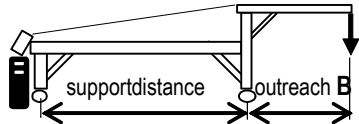


### 6.1.3 Load capacity and configuration tables

DETERMINE THE REQUIRED NUMBER OF COUNTERWEIGHT AS FOLLOWS:

- Determine the type of roof beam that is going to be installed, either:  
ROOFBEAM 400 - 600 LOW / HIGH or  
ROOFBEAM 600 - 800 LOW / HIGH
- Determine the length of required **outreach B**  
for ROOFBEAM 400 - 600 LOW / HIGH, either  
standard → 0,9m / 1,2m or  
with extended front beam → 1,6m / 1,9m / 2,2m (depending on WLL of applied hoist)  
for ROOFBEAM 600 - 800 LOW / HIGH  
standard → 0,9m / 1,2m
- Determine the **support distance A** that is required  
for all types of ROOFBEAMS:  
standard → 4,5m / 5,0m / 5,5m
- Now find the **hoist capacity (WLL)** of the hoist that will be applied
- On the junction of **support distance A** and **hoist capacity**, the required number of counterweights is found.

**EXAMPLE:**

A ROOFBEAM 400 - 600 HIGH is installed, with an **outreach B** of 1,2m and a **support distance A** of 5,0m. The applied hoist has a WLL of 600kg. From the table below it can be seen that 20 weights are required.

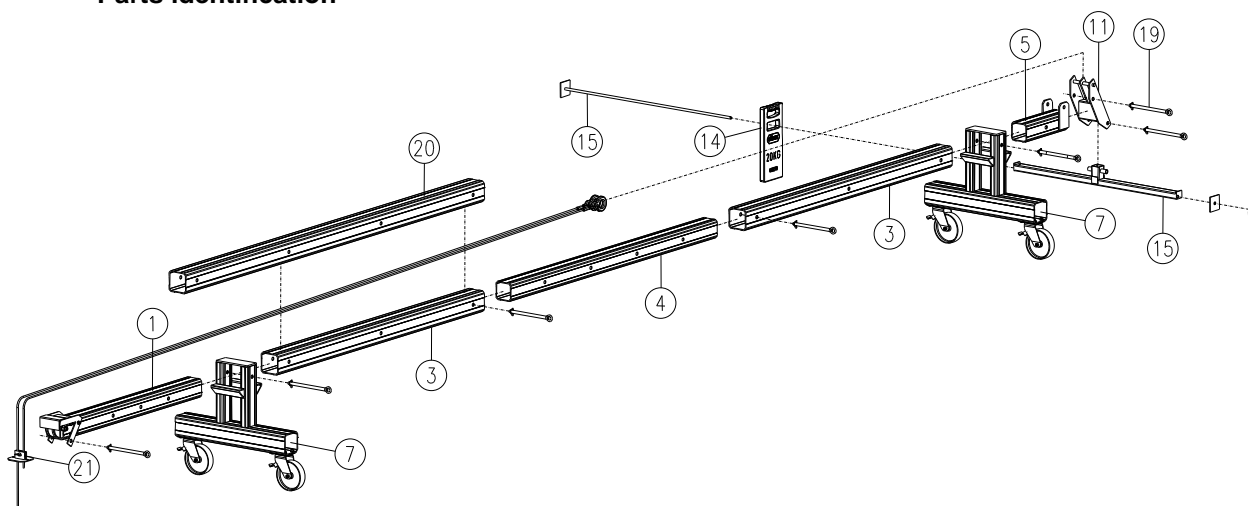
 = 20kg number of counterweights 20kg each / Anzahl Sicherheitsgewichte von je 20kg = 20kg nombre de contrepoids de 20kg / aantal contragewichten van elk 20kg																				
<b>ROOFBEAM 400 - 600</b>								*) <b>ROOFBEAM 400 / 600</b> with extended frontbeam: mit verlängerte Aussenprofil: avec poutre extérieur élongé: met verlengde voorbalk:									art.nr. 415095			
outreach B (m)		0,9			1,2			1,6 *			1,9 *			2,2 *						
supportdistance A (m)		4,5	5,0	5,5	4,5	5,0	5,5	4,5	5,0	5,5	4,5	5,0	5,5	4,5	5,0	5,5				
Hoist Winde Treuril Takel	<b>400kg</b>	10x	9x	8x	14x	13x	11x	20x	18x	16x	24x	21x	19x	27x	24x	22x				
	<b>500kg</b>	13x	12x	10x	18x	16x	15x	25x	22x	20x	30x	27x	24x							
	<b>600kg</b>	16x	14x	13x	22x	20x	18x	31x	27x	25x										
<b>ROOFBEAM 600 - 800</b>																	Altrex B.V. Postbus 30160 8003 CD Zwolle (NL) www.altrex.nl			
outreach B (m)		0,9			1,2															
supportdistance A (m)		4,5	5,0	5,5	4,5	5,0	5,5													
Hoist Winde Treuril Takel	<b>600kg</b>	15x	13x	12x	22x	19x	17x													
	<b>650kg</b>	17x	15x	13x	24x	21x	19x													
	<b>800kg</b>	21x	19x	17x	30x	26x	24x													
Please be sure to consult your Altrex supplier on factory approval for any configurations not listed in the table. Konsultieren Sie Ihnen Altrex Lieferant wann die gewünschte Konstruktion nicht erwähnt ist in diese Tabelle. Contacter votre distributeur d'Altrex quand votre configuration désire n'est pas mentionnée dans ce tableau. Neem contact op met uw Altrex dealer als uw toe te passen configuratie niet vermeld wordt in deze tabel.																				
Machinery Directive ( 98/37/EU) Notified Body: 0547 <span style="float: right;">04-06 art. 735670</span>																				

Each Altrex counterweight (article.no. 414270) weighs 20kg.

**Make sure that enough Altrex counterweights are installed, in order to provide the required safety factor!**  
Secure the counterweights on the bracket with the lock, to prevent the weights from being removed by unauthorised persons.

## 6.2 Roof beam ADB 400/600 low

### 6.2.1 Parts identification



#### ALUMINIUM ROOF BEAM TYPE 400/600 FOR HOIST WORK LOAD LIMIT MAX. 600 KG

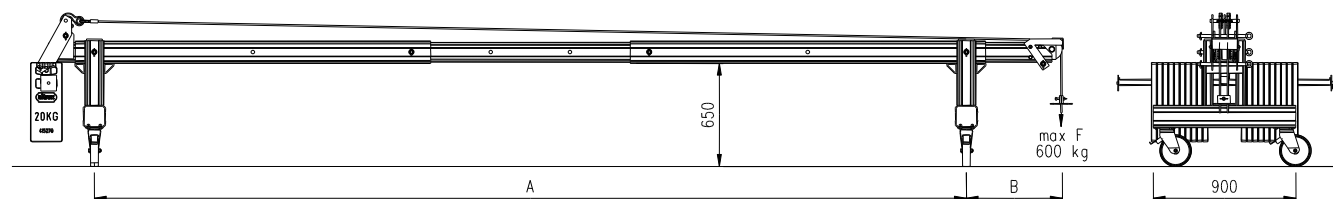
POS	description	part nr.	number	weight in kg
1	front beam 400/600	415050	1	14
3	outer beam *	415090	2 / 1 *	18
4	inner beam	415100	1	15,5
5	shock absorber adaptor	415130	1	4
7	support stand 900 low	415140	2	18
11	shock absorber arm	415210	1	3
14	counterweight ALTREX	415270	See table	20
15	counterweight bracket short incl. security	415276	1	5
19	quickpin long	415320	8	0,5
20	extended outer beam *	415095	1 *	25,9

**Total weight (excl. counterweight)**

**118 kg**

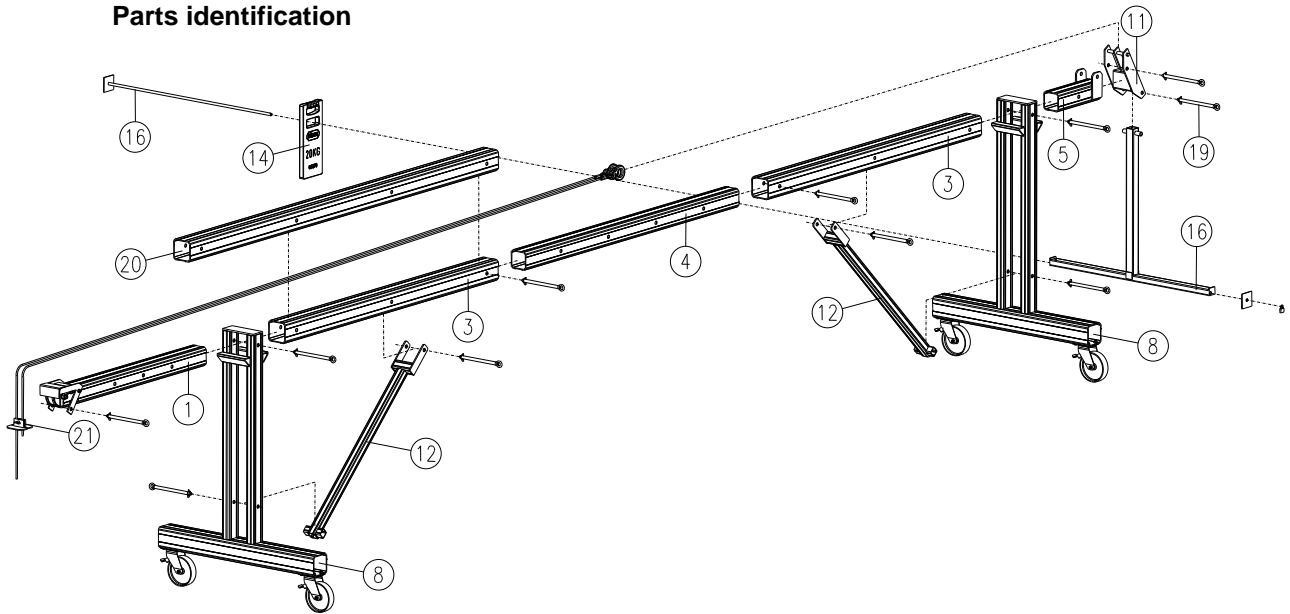
\* partnr. 415095 can be used instead of partnr.415090 to achieve a greater outreach

### 6.2.2 Dimensions



### 6.3 Roof beam ADB 400/600 high

#### 6.3.1 Parts identification



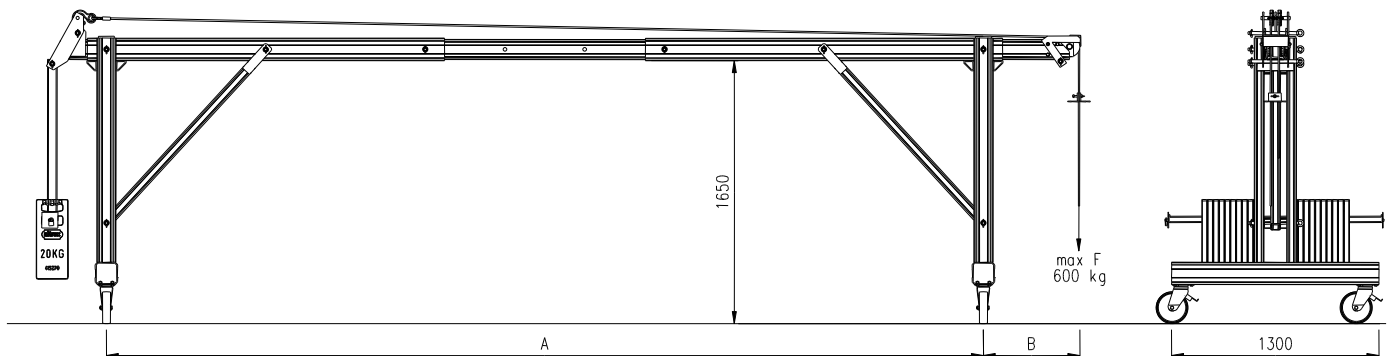
#### ALUMINIUM ROOF BEAM TYPE 400/600 FOR HOIST WORK LOAD LIMIT MAX. 600 KG

POS	description	part nr.	number	weight in kg
1	front beam 400/600	415050	1	14
3	outer beam *	415090	2 / 1 *	18
4	inner beam	415100	1	15,5
5	shock absorber adaptor	415130	1	4
8	support stand 1300 high	415160	2	30
12	Brace	415180	2	4
11	shock absorber arm	415210	1	3
14	counterweight ALTREX	415270	See table	20
16	counterweight bracket long incl. security	415281	1	7
19	quickpin long	415320	12	0,5
20	extended outer beam *	415095	1 *	25,9

**Total weight (excl. counterweight) 154 kg**

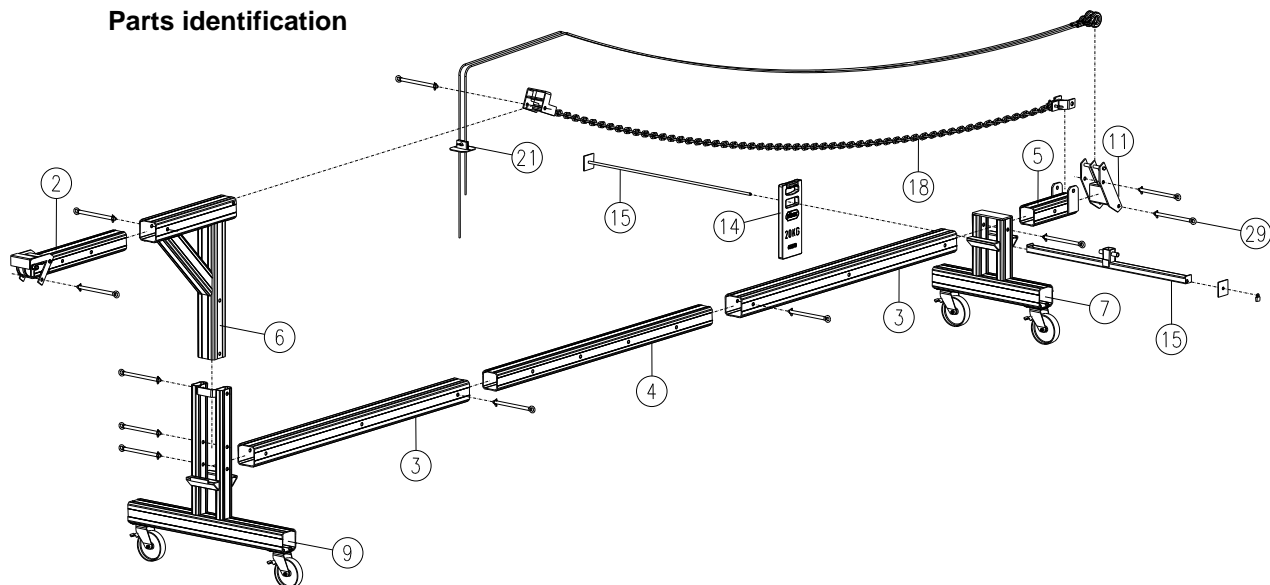
\* partnr. 415095 can be used instead of partnr.415090 to achieve a greater outreach

#### 6.3.2 Dimensions



## 6.4 Roof beam ADP 800 low

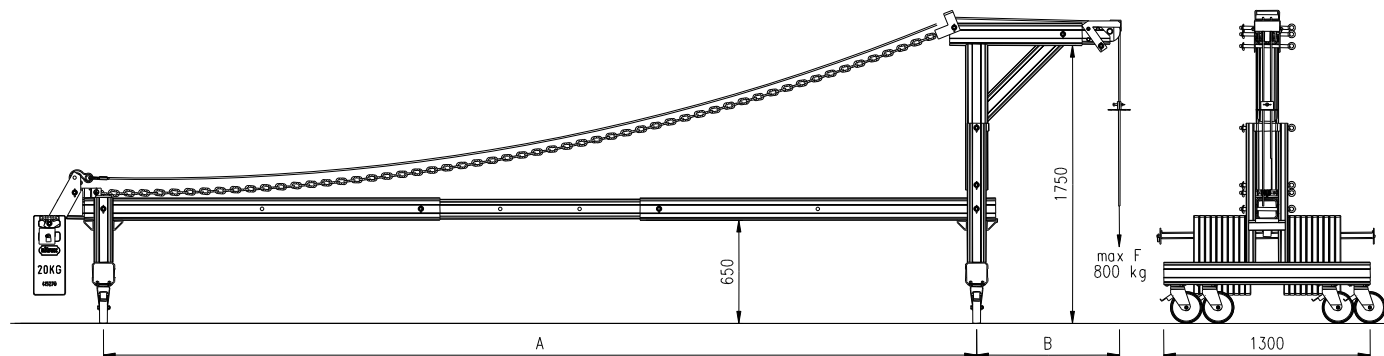
### 6.4.1 Parts identification



#### ALUMINIUM ROOF BEAM TYPE 800 FOR HOIST WORK LOAD LIMIT MAX. 800 KG

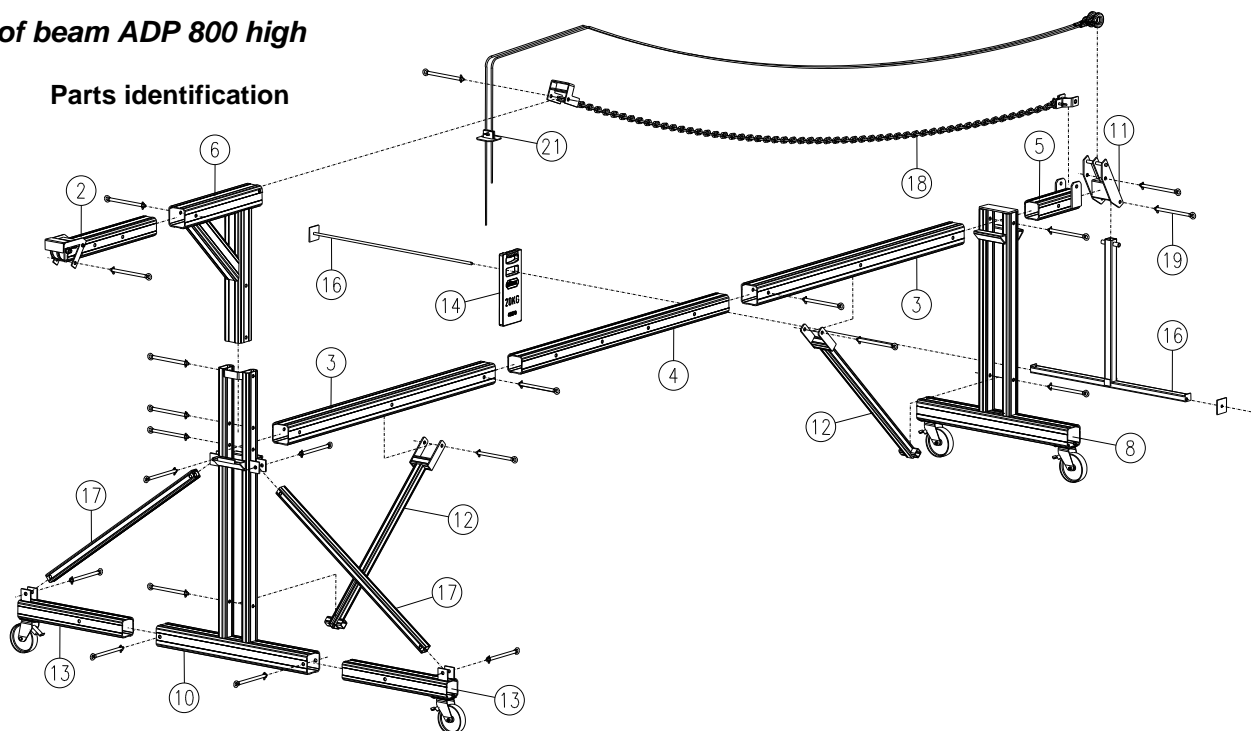
POS	description	part nr.	number	weight in kg
2	front beam 800	415070	1	12,8
3	outer beam	415090	2	18
4	inner beam	415100	1	15,5
6	stanchion 800	415110	1	18
5	shock absorber adaptor	415130	1	4
7	support stand 900 low	415140	1	18
9	front support stand 1300 low	415150	1	23
11	shock absorber arm	415210	1	3
14	counterweight ALTREX	415270	See table	20
15	counterweight bracket short incl. security	415276	1	5
18	chain tensioner complete	415256	1	16
19	quickpin long	415320	12	0,5
<b>Total weight (excl. counterweight)</b>				<b>157 kg</b>

### 6.4.2 Dimensions



## 6.5 Roof beam ADP 800 high

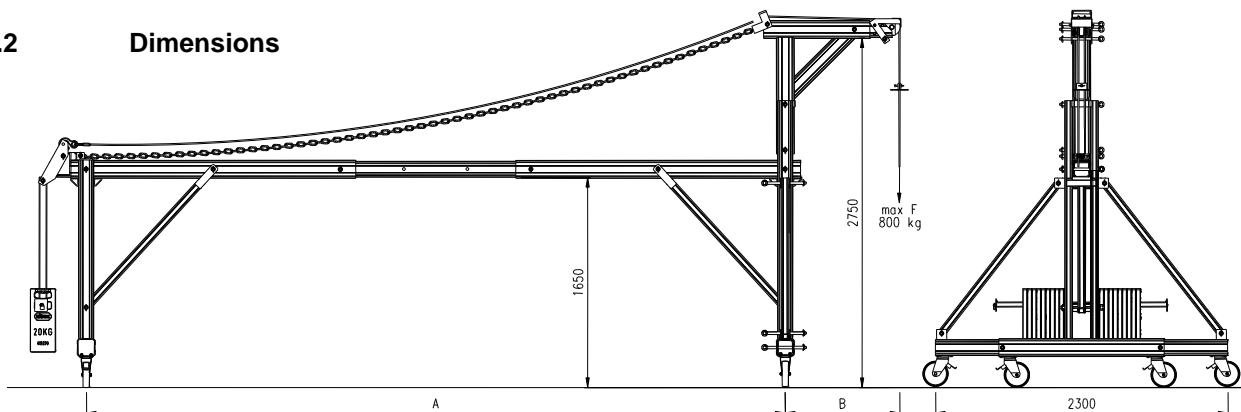
### 6.5.1 Parts identification



#### ALUMINIUM ROOF BEAM TYPE 800 FOR HOIST WORK LOAD LIMIT MAX. 800 KG

POS	description	part nr.	number	weight in kg
2	front beam 800	415070	1	12,8
3	outer beam	415090	2	18
4	inner beam	415100	1	15,5
5	shock absorber adaptor	415130	1	4
6	stanchion 800	415110	1	18
8	support stand 1300 high	415160	1	30
10	front support stand 2300	415170	1	31
11	shock absorber arm	415210	1	3
12	brace	415180	2	4
13	extension front support stand	415190	2	8
14	counterweight ALTREX	415270	See table	20
16	counterweight bracket long incl. security	415281	1	7
17	brace front support stand	415230	2	3,2
18	chain tensioner complete	415256	1	16
19	quickpin long	415320	22	0,5
<b>Total weight (excl. counterweight)</b>				<b>215 kg</b>

### 6.5.2 Dimensions



## 6.6 Safe working, Assembly and Use

### 6.6.1 Safe working on roofs

If the roof on which a roof suspension is to be assembled offers safety by means of a parapet or a permanent guardrail of at least 1m in height, no fall arrest equipment has to be used. NOTE: This applies for flat roofs only.

If work has to be done within 4m from the edge of a roof that offers **no** safety by means of a parapet or guardrail of sufficient height, the following applies:

- If a roof offers a suitable point for anchorage of personal fall-arrest equipment, this should be used. This applies while assembling, relocating or disassembling of the roof suspension construction.
- If the roof has a parapet of at least 10cm in height, a completely built up roof beam with counterweight and with wheels in braked position may be used as point of anchorage for fall-arrest equipment. The shock absorber arm should be used to connect the fall-arrest equipment to the roofbeam. This applies only for roofbeams which are completely installed, including all required counterweights.
- In all other cases a different way of fall-protection has to be arranged, e.g. by edge protection or a mobile point of anchorage.

### 6.6.2 Assembly

NOTE: The roof beam may only be assembled after checking and approval of the load carrying capacity of the roof construction; see also section 6.1.2.

NOTE: Only undamaged and original parts may be used.

- Build up the roof beam in a safe way, protected from the risk of falling, see section 6.6.1; Safe working on roofs.
- Determine the **outreach** and **support distance** and determine the required number of counterweights; see section 6.1.3
- Position the main parts of the roof beam and secure with quick-pins. See also section 6.2 / 6.3 / 6.4 / 6.5
  - mount front support stand with outer beam
  - mount eventual stanchion
  - insert front beam and inner beam
  - mount rear support stand and outer beam
  - connect these two pieces
  - mount eventual braces
  - mount shock absorber arm and counterweight bracket
  - mount eventual chain tensioner
- Bring the roof beam in the desired position and lock the wheel brakes. The front and rear support's wheel brakes must be locked during operation and may only be unlocked for relocation.
- Place the counter weights on the counterweight bracket on the roof beam. Secure it with the enclosed bar and lock it to prevent removal by unauthorized persons.
- The wire ropes are hooked, with a hook, to the shock absorber on the rear section, and then guided around the wire rope pulleys in the front section of the beam. The wire ropes may only be attached once the counter weights have been fully installed.
- The wire ropes must hang free and may not become entangled with one another.
- Attach the striker plate onto the safety wire rope at about 20cm below the front beam.
- Put a weight on the tail end of the safety rope at 20cm above the ground, to pull out all slack of the safety wire rope.
- After making sure that all roof beam parts have been separately checked for completeness and correct assembly, the roof beam is ready for use.

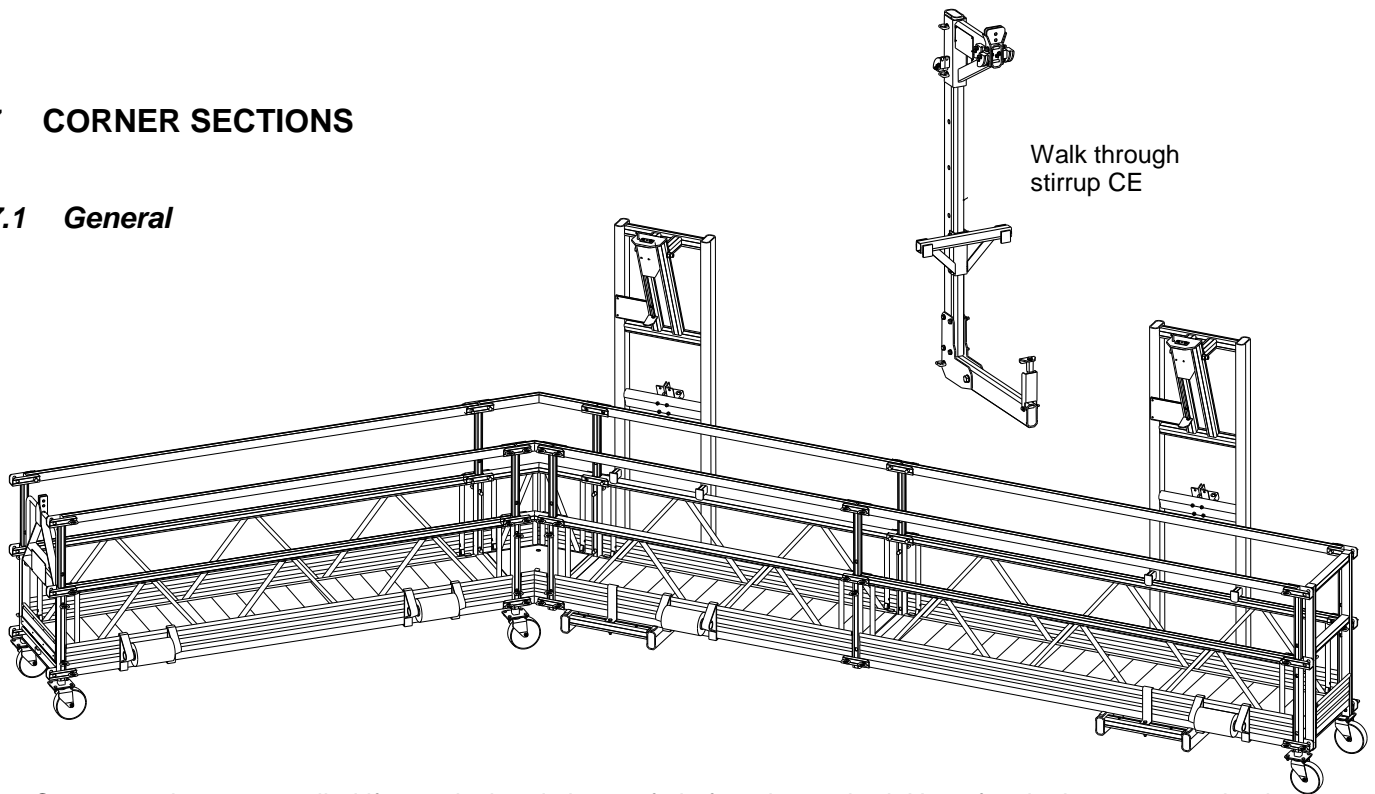


### **6.6.3 Terminating use, relocation and disassembly**

- Relocate and disassemble the Roof Beam in a safe way, protected from the risk of falling, See section 6.6.1; Safe working on roofs.
- Before relocating the roof beam, make sure that nothing is attached to the suspension rope or safety rope and that the ropes can travel freely to the new position.
- Be sure to locate the roof beams in such a way that the distance of the roof beams corresponds with the distance of the stirrups at platform level.
- After relocating, make sure that all castor wheels are in braked position.
- At the end of use, first remove suspension- and safety ropes, before removal of counterweights or any disassembly of the roof beam.
- The roof beam shall be disassembled in the reversed order of its assembly.

## 7 CORNER SECTIONS

### 7.1 General

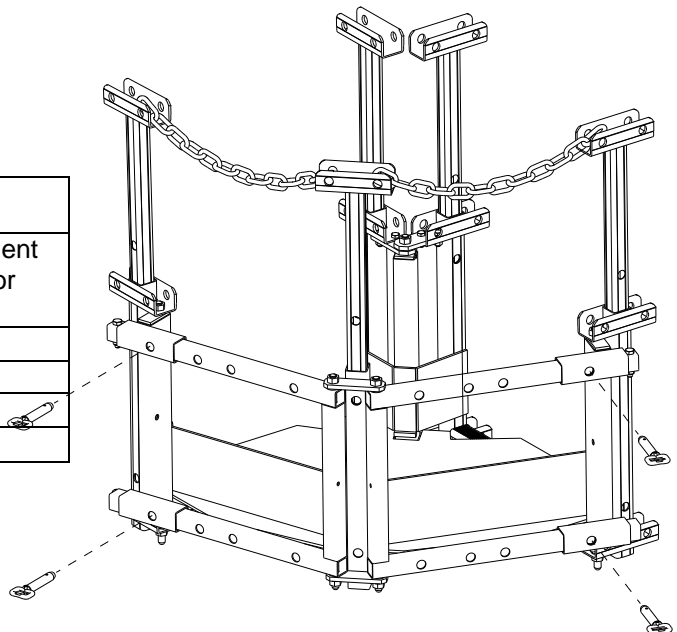


- Corner sections are applied if an articulated shape of platform is required. Use of a single corner section is allowed. This yields a two-legged or L-shaped platform. See section 7.4: "Load capacity and configuration tables" for the admissible configurations of MHB with corner sections. Contact your distributor or supplier if different shapes are desired.
- Before assembly and use read these instructions and the instructions of the Altrex modular Platform MHB carefully and completely. If in doubt contact your supplier.
- An L-shaped platform configuration must be suspended from three points. So three stirrups and three hoists are needed on the platform and three suspension points are needed on roof-level.
- Altrex corner sections shall be used in combination with the Altrex modular suspended platform system MHB-60 only. It is not allowed to use the Altrex corner sections in combination with the MHB-80 platform system built up out of MHB-60 elements with adapter.
- The angle between the adjacent sections in case of an adjustable corner section can be adjusted to the following angles: 20°, 30°, 45°, 51°, 60°, 72° and 90°.
- The angle between the adjacent sections in case of a fixed corner section depends on the type of corner section: 30°, 45°, 60° or 90°.

### 7.2 Parts identification

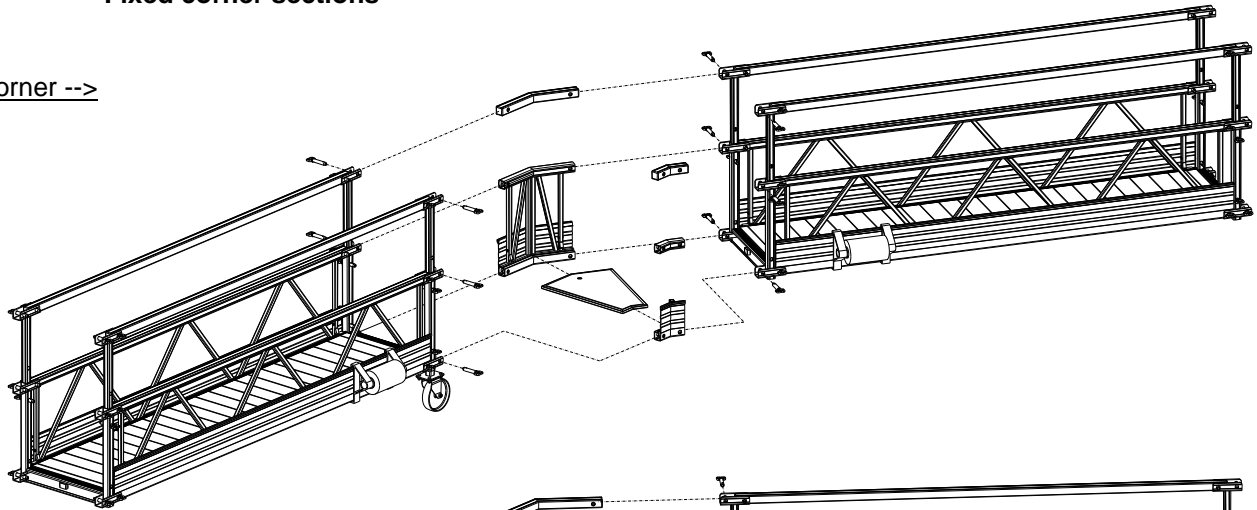
#### 7.2.1 Adjustable corner section

Pos.	Description	Quantity	Remarks
423069	Base model	1	Including adjustment assembly chain for outer handrail
735651	Deck	1	
735652	Toe board	1	2 parts
421513	Guardrail post	5	
424001	Quickpin	24	

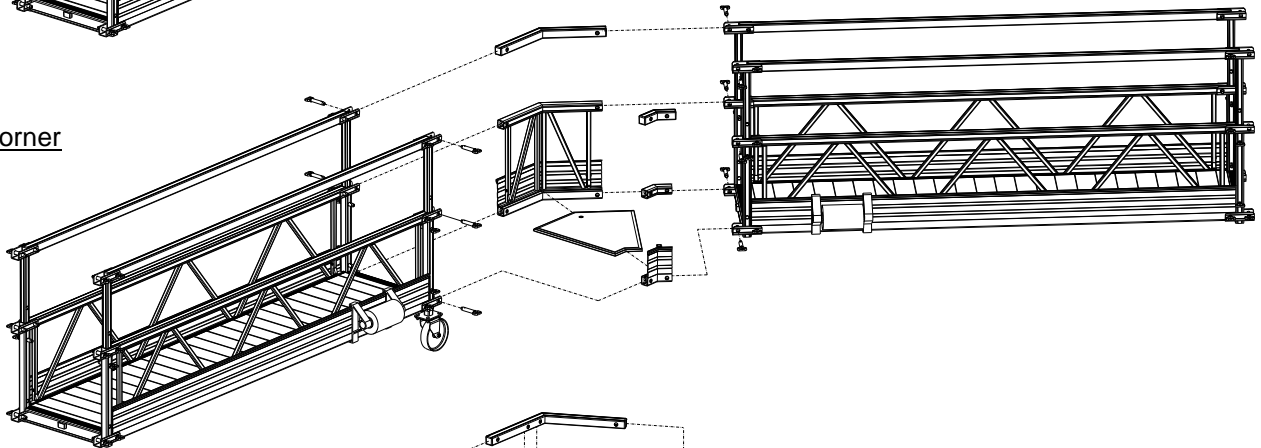


## 7.2.2 Fixed corner sections

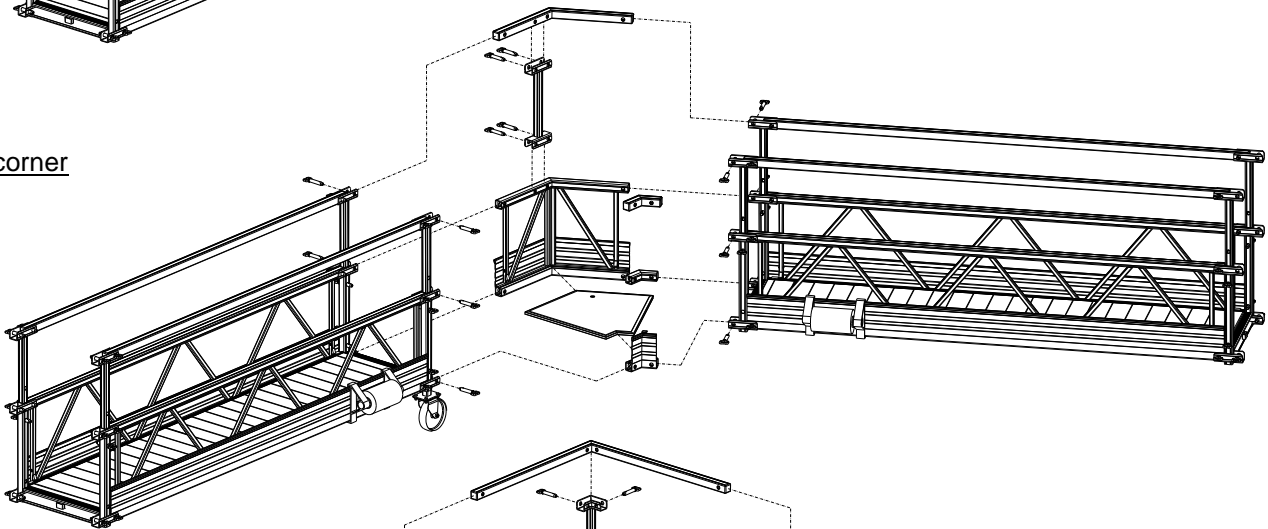
30° corner -->



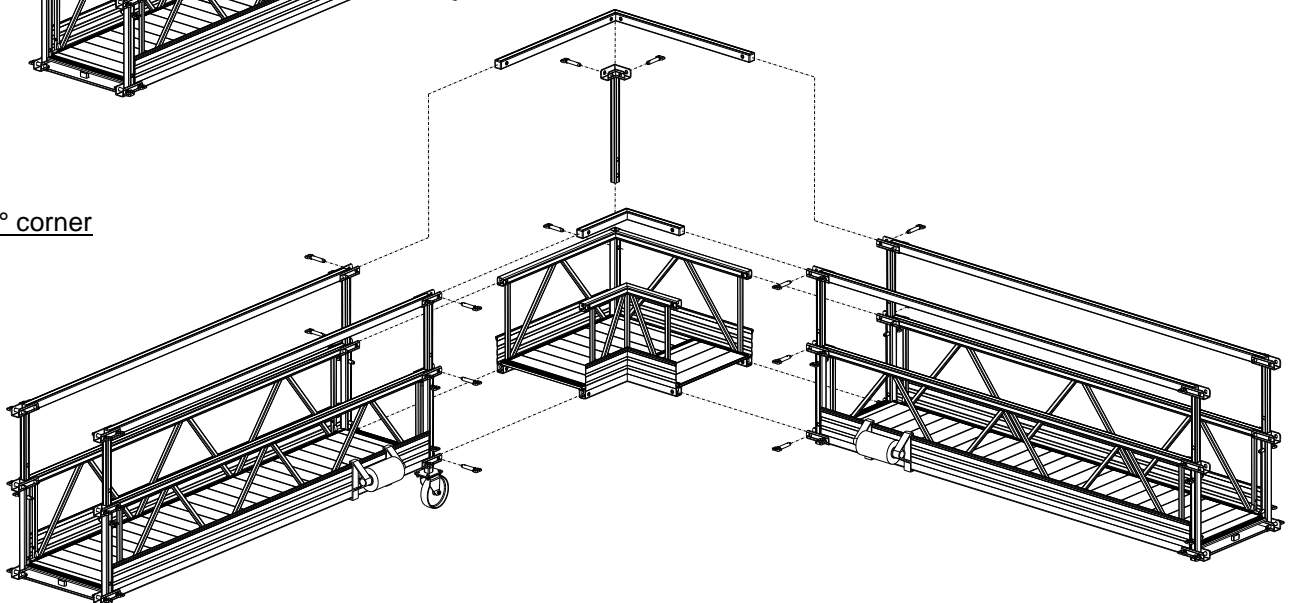
45° corner



60° corner



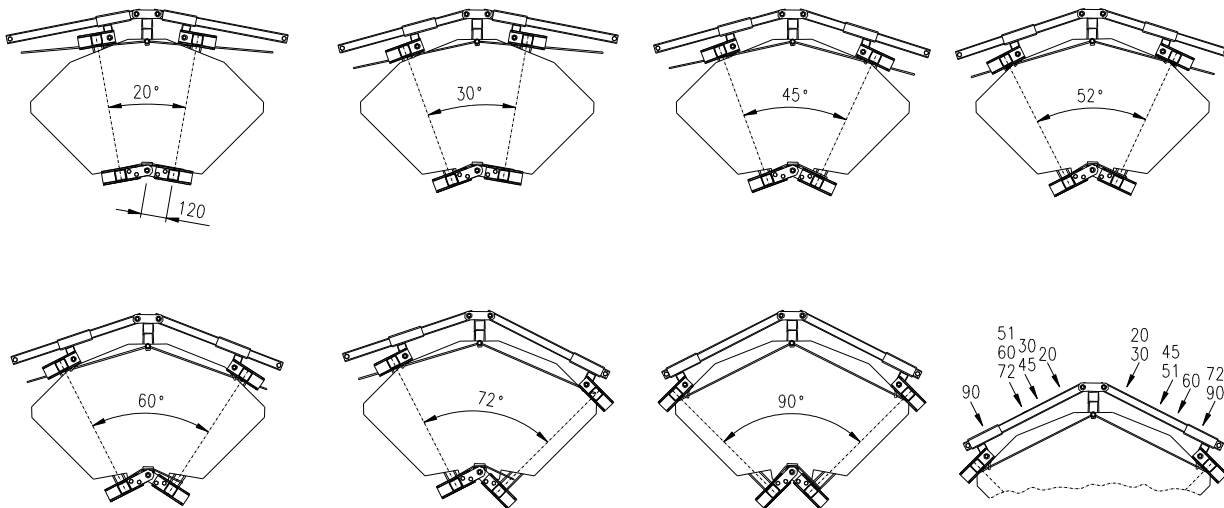
90° corner



DESCRIPTION OF PART	30°	45°	60°	90°
Fixed corner section complete	423065	423060	423055	423050
Corner sideframe outside	423300	423400	423600	
Corner sideframe inside	423302	423401	423602	
Siderail inside	423303	423402	423603	
Guardrail outside	423301	423404	423601	423902
Guardrail inside	423304	423405	423604	423903
Deck	423305	423403	423605	
Guardrail post corner 60°			423606	
Construction corner 90°				dwg.404-2-0006
Guardrail post corner 90°				423901
Deck 90° short				dwg.404-2-0001
Deck 90° long				dwg.404-2-0002

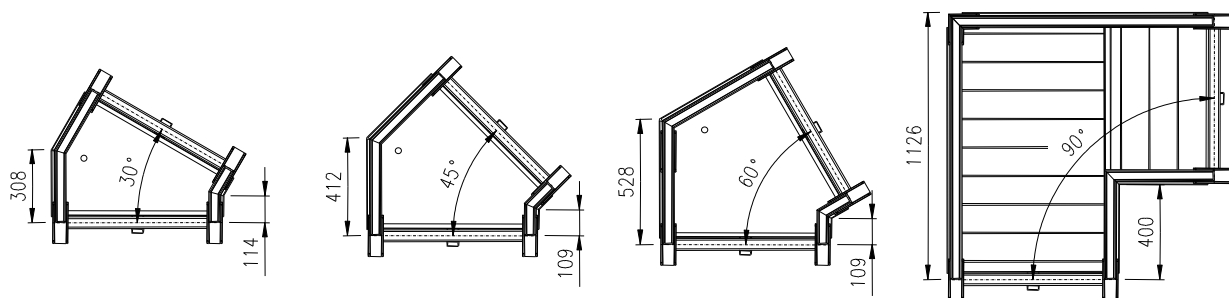
### 7.3 Dimensions

#### 7.3.1 Adjustable corner section



In order to create a certain angle, make sure that the pinned holes correspond with the required angle.  
**EXAMPLE:** In order to make e.g. an angle of 60°; make sure that both holes where 60 is indicated are pinned.

#### 7.3.2 Fixed corner section



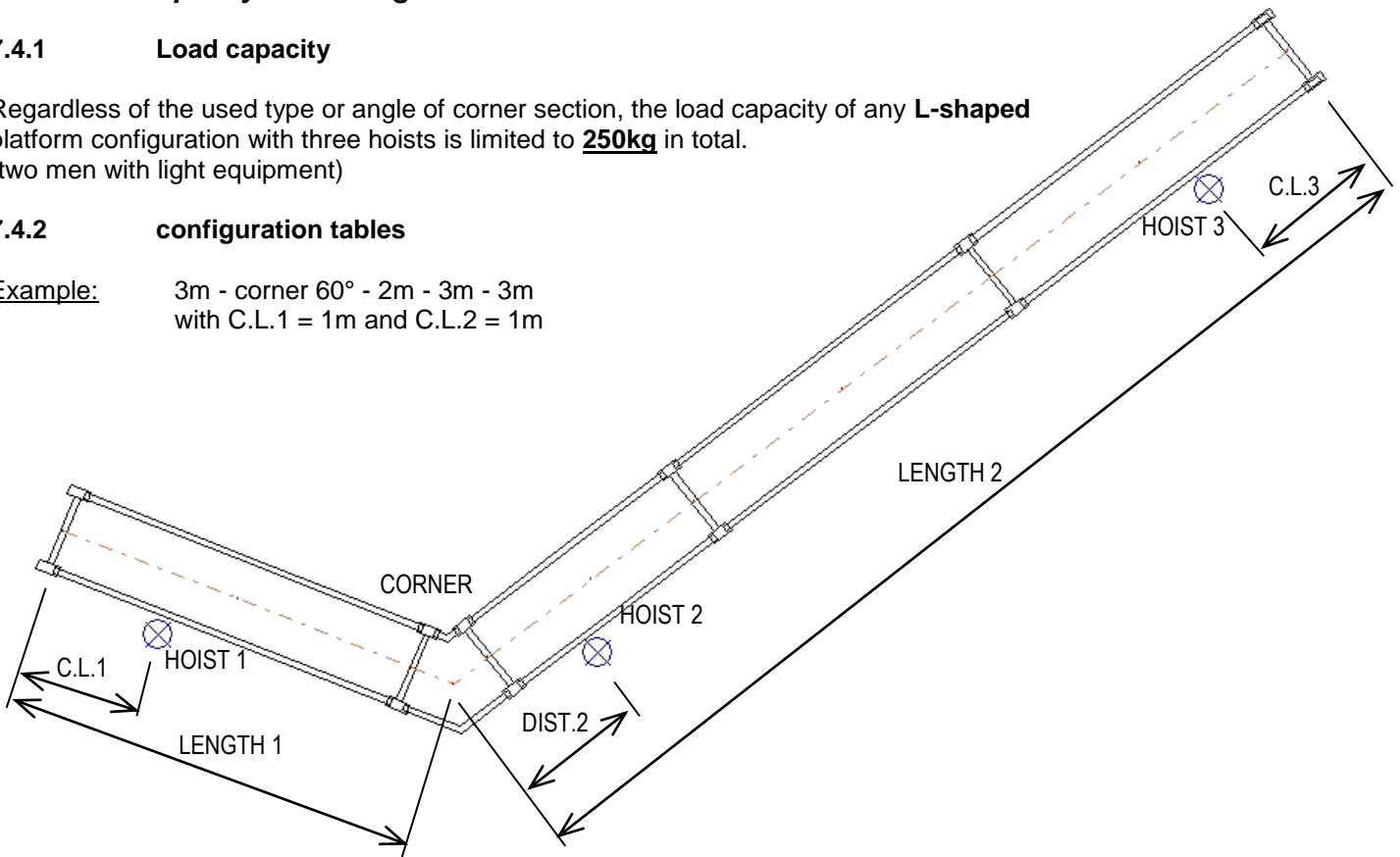
## 7.4 Load capacity and configuration tables

### 7.4.1 Load capacity

Regardless of the used type or angle of corner section, the load capacity of any **L-shaped** platform configuration with three hoists is limited to **250kg** in total. (two men with light equipment)

### 7.4.2 configuration tables

Example: 3m - corner 60° - 2m - 3m - 3m  
with C.L.1 = 1m and C.L.2 = 1m



Configuration table for the use of a single cornersection

**NOTE THAT ONLY THESE CONFIGURATIONS ARE APPROVED AND MAY BE USED!**

LENGTH 1 (m)	C.L.1 (m)	DIST.2 (m)	LENGTH 2 (m)							
			5	6	7	8	9	10	11	12
1	0	1	5	6	7	8	9	10	11	12
2	0	1	5	6	7	8	9	10	11	12
3	0; 1	1	5	6	7	8	9	10	11	12
4	0; 1	1	5	6	7	8	9	10	11	12
5	0; 1; 2	1	5	6	7	8	9	10	11	12
6	0; 1; 2	1	5	6	7	8	9	10	11	12
C.L.3 (m)			0; 1	0; 1; 2	0; 1; 2	0; 1; 2	0; 1; 2; 3	0; 1; 2; 3	0; 1; 2; 3	0; 1; 2; 3

SELECT A CONFIGURATION AS FOLLOWS:

- select a certain LENGTH 1 in the first column (e.g. 3m)  
Note that: Length 1 and Length 2 concern the required length of the straight part of workplatform, adjacent to a corner section.  
Note that: Length 1 is always the shorter leg of both  
Note that: The configuration may be mirrored
- the admissible cantilever length C.L.1 on LENGTH 1 is found in the second column "C.L.1", (e.g. 1m)  
Note that if C.L. = 0, this implies an End stirrup, while a C.L. of 1, 2 or 3 implies a walk through stirrup  
Note that the distance DIST.2 from the corner till the middle stirrup must be 1m or less
- select a certain LENGTH 2 (e.g. 8m)
- the admissible cantilever length C.L.3 on LENGTH 2 is found in the lowest row of the column of the chosen LENGTH 2. In this case either 0, 1 or 2m.

## 7.5 Assembly

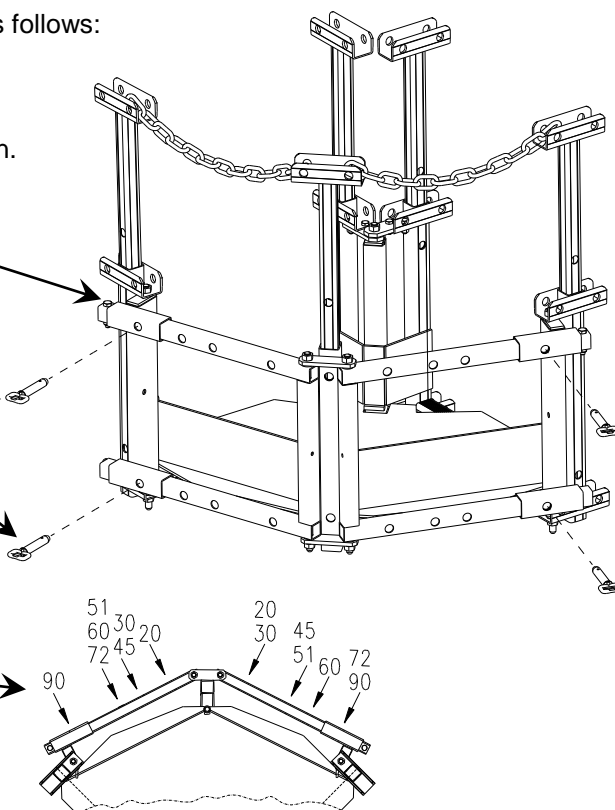
### 7.5.1 Sequence of assembly

The sequence of assembly of the **adjustable corner section** is as follows:

- For first use: At the end of the upper parts of the red coloured adjustment tubes a bolt has been mounted as an end stop to prevent unintentional separation of the adjustment construction. Remove the bolts and slide inner tubes into the outer tubes. Mount the same bolts and nut as an end stop.

- The angle shall be adjusted as required for the job. Secure the correct angle with four quick-pins

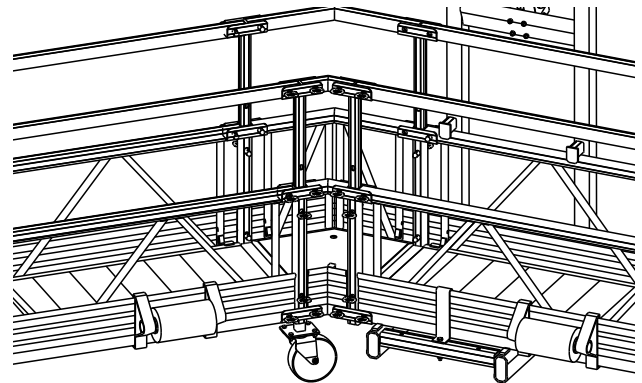
- In order to create a certain angle, make sure that the pinned holes correspond with the required angle, as seen in the top view of the adjustable corner section:



- Built up two MHB platforms. See chapter 3 for instructions about assembling MHB platforms.
- For allowed combinations of lengths, see section 7.4.4. Make sure that the decks are already mounted.
- Connect the two platform sections to the corner section.
- Assemble and secure the corner section platform deck, toe-boards.
- Insert the guardrail posts into the adjustable corner sections.
- Connect the guard rail chain to the guard rail posts at the outside of the corner section in such way that the chain is as tight as possible.
- Check whether the total assembly is complete and whether all quick-pins have been installed and secured.
- Check whether at the end of the upper parts of the adjustment tubes a bolt has been mounted as an end stop to prevent unintentional separation of the adjustment construction.

The sequence of assembly of the **fixed corner section** is as follows:

- Make sure that the chosen angle of the corner section corresponds with the angle required for the job.
- Built up two MHB platforms. See chapter 3 for instructions about assembling MHB platforms.
- For allowed combinations of lengths, see section 7.4.4. Make sure that the decks are already mounted.
- Connect the corner sections' parts in-between the two platform sections. First the sideframeparts then the deck and guardrail posts with guardrail.
- Check whether all components are assembled in the Correct manner and whether all quick-pins have been Installed and secured.



### 7.5.2 Check before use



- Check if the angle of the corner sections is suitable for the intended use.
- Check whether the total assembly is complete and assembled in the correct manner. Check whether all quick-pins have been installed and secured.

General:

- Control boxes shall preferably be positioned on the platform at a location near the corner section, from where the operator can oversee all three hoists.

### 7.5.3 Warning

The following warning label shall be attached to a corner section:

Art. nr. 735668 03-06	Bij gebruik van deze hoeksectie is de max. belasting inclusief personen 250 kg. voor de gehele configuratie. <b>Alle andere belastingtabellen op deze hangbrug zijn niet geldig.</b> Voor opbouw instructie zie handboek.	Bei der Benutzung dieser Ecksection beträgt die max. Tragfähigkeit einschließlich Personen 250Kg. für die kompletten Bühnenaufbau. <b>Alle sonstigen Tragfähigkeitstabelle auf dieser Arbeitsbühne sind nicht Gültig.</b> Siehe Betriebsanleitung der Arbeitsbühne.	
	When using this cornersection the max. loadability including persons is 250Kg. for this configuration. <b>All other loadability-tables on this configuration are not valid.</b> Check users manual for the build up instructions.	Pendant usage de cette section angulaire réglable le charge max, inclusive des personnes est 250 kg. pour cette configuration. <b>Tous les autres tableaux des charges admissible pour cette nacelle sont pas valide.</b> Pour assemblage , utiliser votre manuel de notice de montage.	

## 8 DOUBLE-DECK-MHB

### 8.1 General

#### 8.1.1 Description

The MHB Double Deck provides a double level work platform. It consists of two single MHB-60 work platforms that are connected by ladder parts on either end. To be able to move from one to the other level, the upper platform has one platform deck with hatch, just above the ladder part.

The Double Deck platform can either be suspended by two end-stirrups or two walk-through stirrups that are connected to the upper MHB platform.

#### 8.1.2 Use

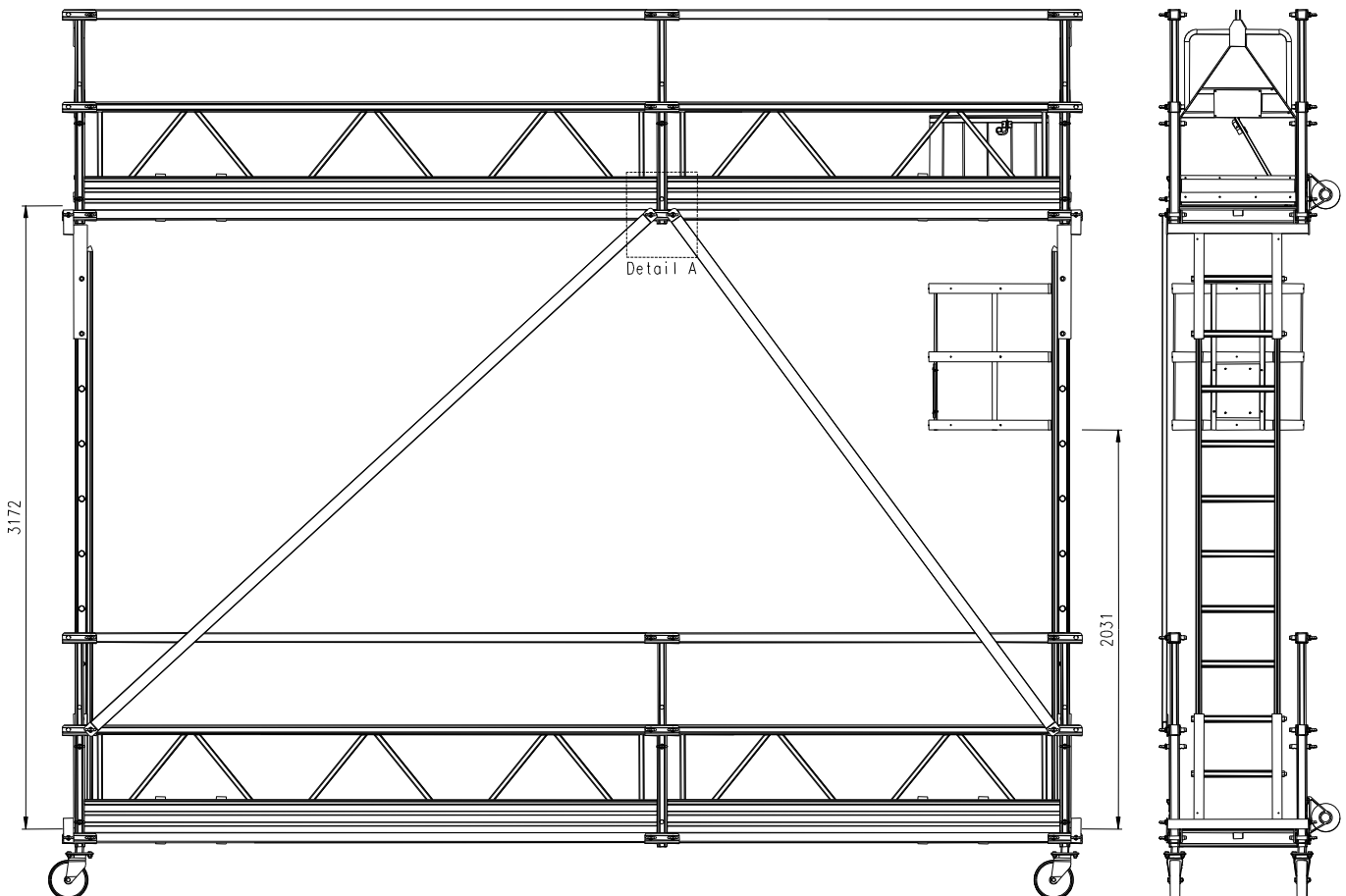
The Altrex MHB work platform is meant to be used for "medium duty" jobs (<300kg/m<sup>2</sup>) such as finishing, building, inspection and maintenance on facades and ceilings of buildings, bridges and other structures.

Only the configurations indicated at the "Load capacity and configuration tables" in section 8.3 may be used

### 8.2 Dimensions

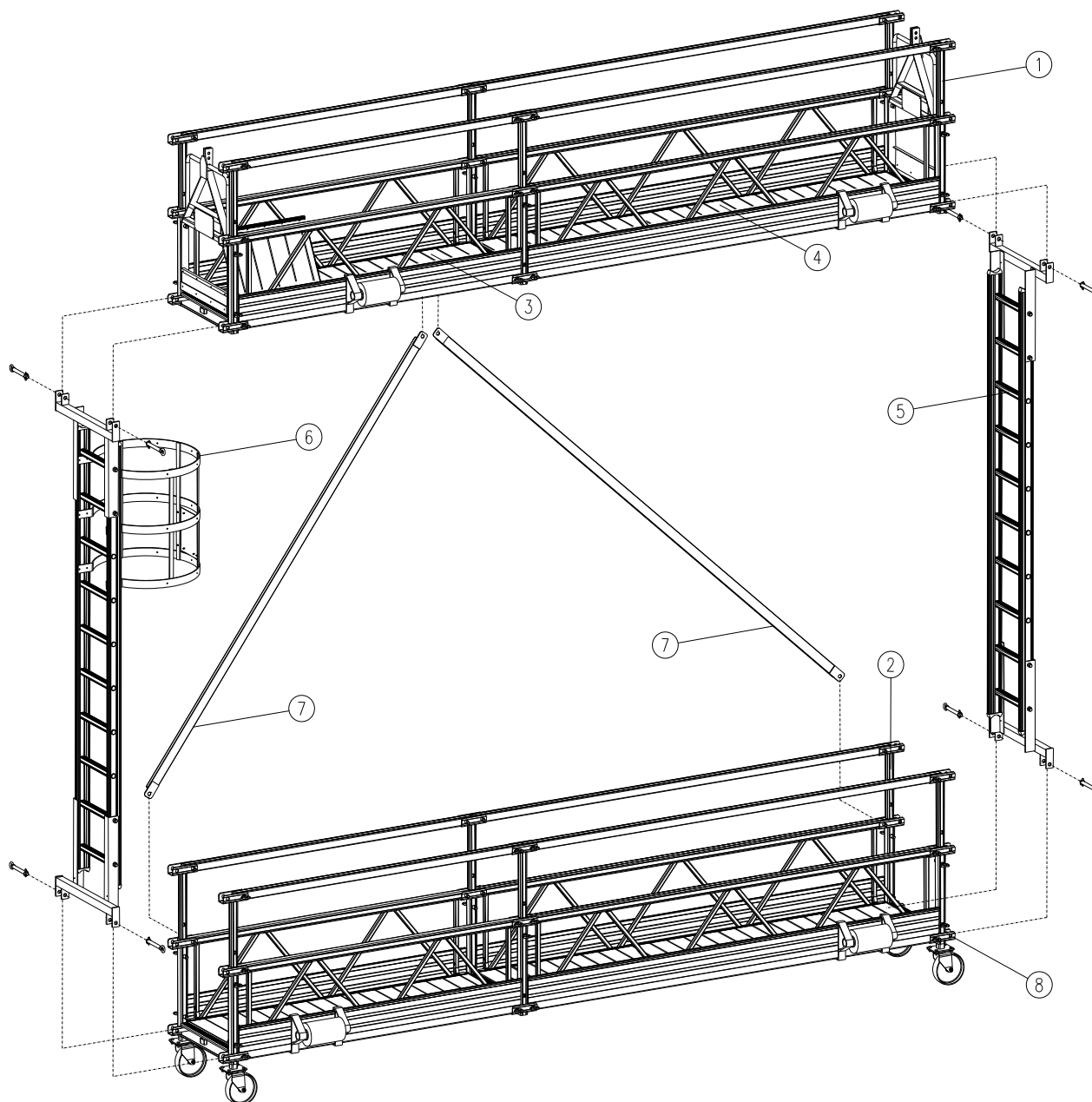
The difference in platform level has been indicated. For dimensions of MHB-60 platform, see chapter 3.

Example:





### 8.3 Parts identification

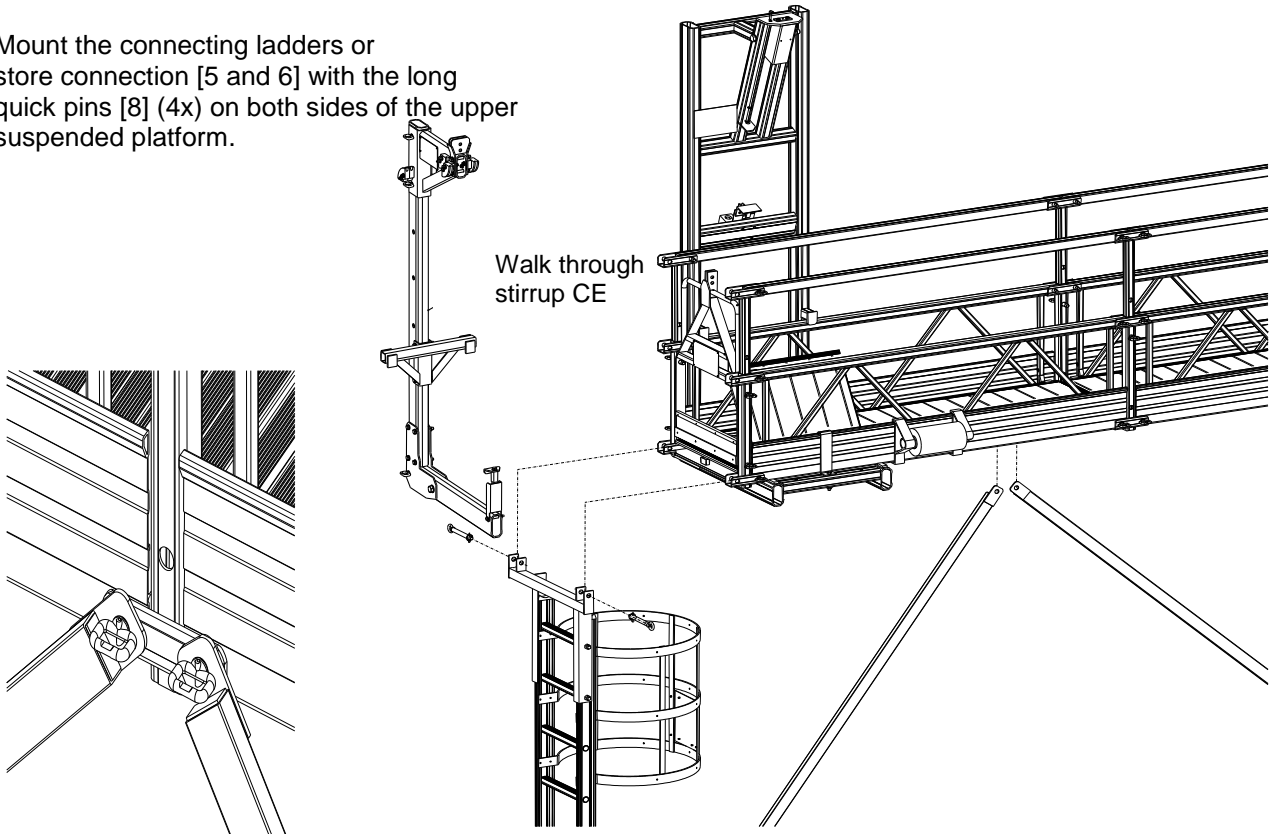


**Parts list:**

No.	Description	Part nr.	Weight	Number
1	Suspended platform with stirrups	-		1
2	Suspended platform without stirrups	-		1
3	Aluminium floor	-		-
4	Aluminium floor with trapdoor 2m / 3m	422602 / -603		1
5	Store connection MHB	423082		1
6	Store connection MHB with cage	423083		1
(7)	diagonal brace platform 1m	423091		-
7	diagonal brace platform 2m	423092		-
7	diagonal brace platform 3m	423093		-
8	quick pin MHB long	424002		8

## 8.4 Assembly

- Build the upper suspended platform [1] according to the MHB-assembly instructions (see chapter 3). Choose a configuration according to the "Load and configuration tables" in section 8.5. Note that a platform with hatch is mounted on the side of the platform where the caged ladder will be located.
- Mount the stirrups; these can be either end stirrups or walkthrough stirrups (see chapter 5) and mount the hoists. (see chapter 10).
- Lead the suspension ropes through the suspension points of the roof-beams and through the hoists according to the instructions of the manufacturer. See chapter 10 "Hoists".
- Mount the connecting ladders or store connection [5 and 6] with the long quick pins [8] (4x) on both sides of the upper suspended platform.



- Attach the diagonal braces [7] to the upper suspended platform, on the non-facade side, and if possible on the outer platform sections, with the quick pins of the suspended platform, see detail. Secure all quick pins  
**A minimum of 2 diagonal braces shall be used at all times.**
- Lift the installation until the ladder parts hang vertically.
- Built the lower suspended platform [2] and attach it with the long quick pins [8] (4x) between the two ladder parts.
- Attach the other diagonal braces' ends to the lower suspended platform, as indicated in figure.

## 8.5 Load capacity and configuration tables


### 8.5.1 MHB Double Deck with end stirrup

The column 500 kg is valid for the Titan 503

The column 650 kg is valid for the Titan 653

The column 600 kg is valid for the Astro E86-CTO and Bisomac210 1-Phase

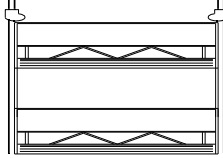
The column 800 kg is valid for the Astro E89-CTO and Bisomac210 3-Phase

 <p>Zorg voor een symmetrische opbouw Trag Sorg für eine symmetrische Aufbau Une construction symétrique est obligatoire Make sure that: construction is built up symmetrical</p>			Belastbarkeit is inclusief personen Belastbarkeit ist inklusiv Personen Chargabilitéeestinclusivement personnes Loadability includes weight of persons								
			Work Load LIMIT (WLL) Takel / Winde / Treuil / Hoist								
			500kg	600kg	650kg	800kg					
			Belasting / Nutzlast Charge / Load	MAX. NO.	Belasting / Nutzlast Charge / Load	MAX. NO.	Belasting / Nutzlast Charge / Load	MAX. NO.	Belasting / Nutzlast Charge / Load	MAX. NO.	
			[kg]		[kg]		[kg]		[kg]		
			[m]		[m]		[m]		[m]		
03-06 / art 735572	Totale lengte Gesamtlänge Longeur Plateforme Total length	Opbouwschema Aufbau Modules Arrangement	Eigen gewicht Eigen Gewicht Propre poids Self weight								
	3	3	368	360	3	720	3	720	3	720	3
	4	2 2	407	320	3	420	4	560	4	1080	4
	5	3 2	449	300	3	390	4	490	5	690	5
	6	3 3	488	280	3	360	4	450	5	620	6
	7	2 3 2	527	260	2	340	3	420	4	570	6
	8	3 2 3	569	210	2	280	3	360	4	490	5
	9	3 3 3	609	200	2	270	2	340	3	470	5
	10	3 2 2 3	648			200	2	260	2	370	4
	11	3 2 3 3	690			200	2	260	2	360	4
	12	3 3 3 3	729					250	2	360	4


vloerdruk / Bodendruck / charge de surface /  
floopressure  
**max300kg/m<sup>2</sup>**

Voor takel type zie handleiding  
Für Winde typ siehe die Anleitung

Etagebrug met eindbeugels  
Doppelstockbühne mit Endbügel  
Plateforme double niveau avec etiers de suspension  
Multideck platform with end-stirrups



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Machinery Directive  
(98/37/EU)

Neem contact op met uw Altrex dealer indien uw toe te  
passen configuratie niet vermeld wordt in deze tabel.  
Konsultieren Sie ihren Altrex Lieferant wann die gewünschte  
Konstruktion nicht erwähnt ist in diese Tabelle.  
Contacter votre distributeur d'Altrex quand votre configuration  
désire n'est pas mentionnée dans ce tableau.  
Please be sure to consult with your Altrex supplier on factory  
approval for any configurations not listed in the table.



If you use a different hoist, be sure this hoist has the same or more capacity as mentioned in the above table.

## 8.5.2 MHB Double Deck with walk through stirrup

The column 500 kg is valid for the Titan 503

The column 650 kg is valid for the Titan 653

The column 600 kg is valid for the Astro E86-CTO and Bisomac210 1-Phase

The column 800 kg is valid for the Astro E89-CTO and Bisomac210 3-Phase

<p>Zorg voor een symmetrische opbouw Trag Sorg für eine symmetrische Aufbau Une construction symétrique est obligatoire Make sure that the construction is built up symmetrical</p>				Belastbarkeit ist inklusief personen Belastbarkeit ist inklusiv Personen Chargabilitéestinclusivement personnes Loadability includes weight of persons											
				<b>Work Load LIMIT (WLL)</b> Takel / Winde / Treuil / Hoist											
				500kg			600kg			650kg			800kg		
				Belasting / Nutzlast Charge / Load	MAX. NO.	Belasting / Nutzlast Charge / Load	MAX. NO.	Belasting / Nutzlast Charge / Load	MAX. NO.	Belasting / Nutzlast Charge / Load	MAX. NO.	Belasting / Nutzlast Charge / Load	MAX. NO.		
Totale lengte Gesamtlänge Longeur Plateforme Total length	Opbouwschema Aufbau Modules Arrangement	Kabelafstand Tragseilabstand Distance entraxes étriers Cable distance	Eigen gewicht Eigen Gewicht Propre poids Self weight	[kg]		[kg]		[kg]		[kg]		[kg]			
3	3	2	458	320	3	420	3	560	3	1080	3				
4	2 2	3	497	300	3	390	4	490	4	690	4				
5	3 2	4	539	280	3	360	4	450	5	620	5				
6	3 3	5	578	260	2	340	3	420	4	570	6				
7	2 3 2	6	617	210	2	280	3	360	4	490	5				
8	3 2 3	7	659	200	2	270	2	340	3	470	5				
9	3 3 3	8	699			200	2	260	2	370	4				
10	3 2 2 3	9	738			200	2	260	2	360	4				
11	3 2 3 3	10	780					250	2	360	4				
12	3 3 3 3	11	819					240	2	310	3				



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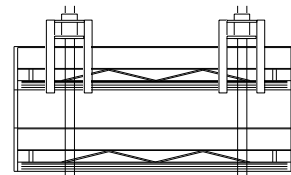
vloerdruk / Bodendruck /  
charge de surface / floorpressure  
**max. 300kg/m<sup>2</sup>**

Voor takel type zie handleiding  
Für Winde typ siehe die Anleitung

Machine Richtlijn /  
Maschinenrichtlinie /  
Directive sur les Machines /  
Machinery Directive /  
(98/37/EU)

Notified Body: 0547

Etagebrug met doorloopbeugels  
Doppelstockbühne mit Durchlaufbügel  
Plateforme double niveau avec étriers de passage  
Multideck platform with walk-through stirrups



Neem contact op met uw Altrex dealer indien uw toe te passen configuratie niet vermeld wordt in deze tabel.  
Konsultieren Sie ihren Altrex Lieferant wann die gewünschte Konstruktion nicht erwähnt ist in diese Tabelle.  
Contacter votre distributeur d'Altrex quand votre configuration désire n'est pas mentionnée dans ce tableau.  
Please be sure to consult with your Altrex supplier on factory approval for any configurations not listed in the table.



If you use a different hoist, be sure this hoist has the same or more capacity as mentioned in the above table.

## 9 CHECKLIST TEMPORARY SUSPENDED PLATFORM SYSTEM (MHB)

**MECHANIC:** Point 1 to 34 ought to be done by every first assembly and by change of configuration, be checked and signed off by a certified mechanic.

**USER:** Point 7 t/m 34 ought to be done before using the installation, be checked and signed off by the user.

nr. CHECK TO BE MADE	YES	NO	N.R.
1 Has the assembly of the roof suspension been executed according to the assembly instructions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Has assembly of the work platform been executed according to the assembly instructions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Is the distance between (eventual) walk-through-stirrups according to the assembly instructions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Is an eventual cantilevered section of work platform no more than allowed by the manufacturer?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Have the hoists been mounted correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Is it demonstrable that the installation has been inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Is the distances between the roof suspensions and stirrups equal (parallel suspension ropes)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Is the space between the facade and the suspension points sufficient?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Has the right number of counter weights been applied and secured?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Have measures been taken to avoid a too high concentration of load?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Are all wheels of the roof beams in locked position?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Have eventual roof hooks been assembled correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 Have eventual backward securities of roof hooks been assembled correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Are these backward securities located directly behind the roof hooks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 Does the electrical supply originate from an earthed power point?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 Is the used fuse at least 16 ampere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 Do the used power cables have the right size diameter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 Has the strain relief(s) of the power cable(s) been mounted correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 Are the power cables free of any visible damage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 Are the steel cables free of any visible damage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 Have the striker plates been mounted minimal 10 cm below the talurit clamp?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 Have the ballast weights been mounted on the wire ropes at 20 cm above ground?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 Do all control functions of the central control box work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 Does the load bearing capacity remain below the maximum indicated capacity on the text plate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25 Does the top limit switches function?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26 Has the emergency lowering function been tested on good function?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27 Is the emergency descent wheel present? (Note: not present on Bisomac hoists)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 Does the fall-arrest device function?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29 Are the required certificates present or immediately withdrawable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30 Is the manual present?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31 Have precautions been taken to protect bystanders from danger?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32 Does the wind force on the working location stay below wind force 6Beaufort (13,8m/s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33 Do overload detection device / anti-tilt device / slack rope safety device function?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34 Is the connection of the stirrup to the hoist free from corrosion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**For noted short comings you should cross "NO", so these can be taken care of. Finally the checklist should be sign of.**

**NOTE! The MHB should not be used if the short comings have not been resolved.**