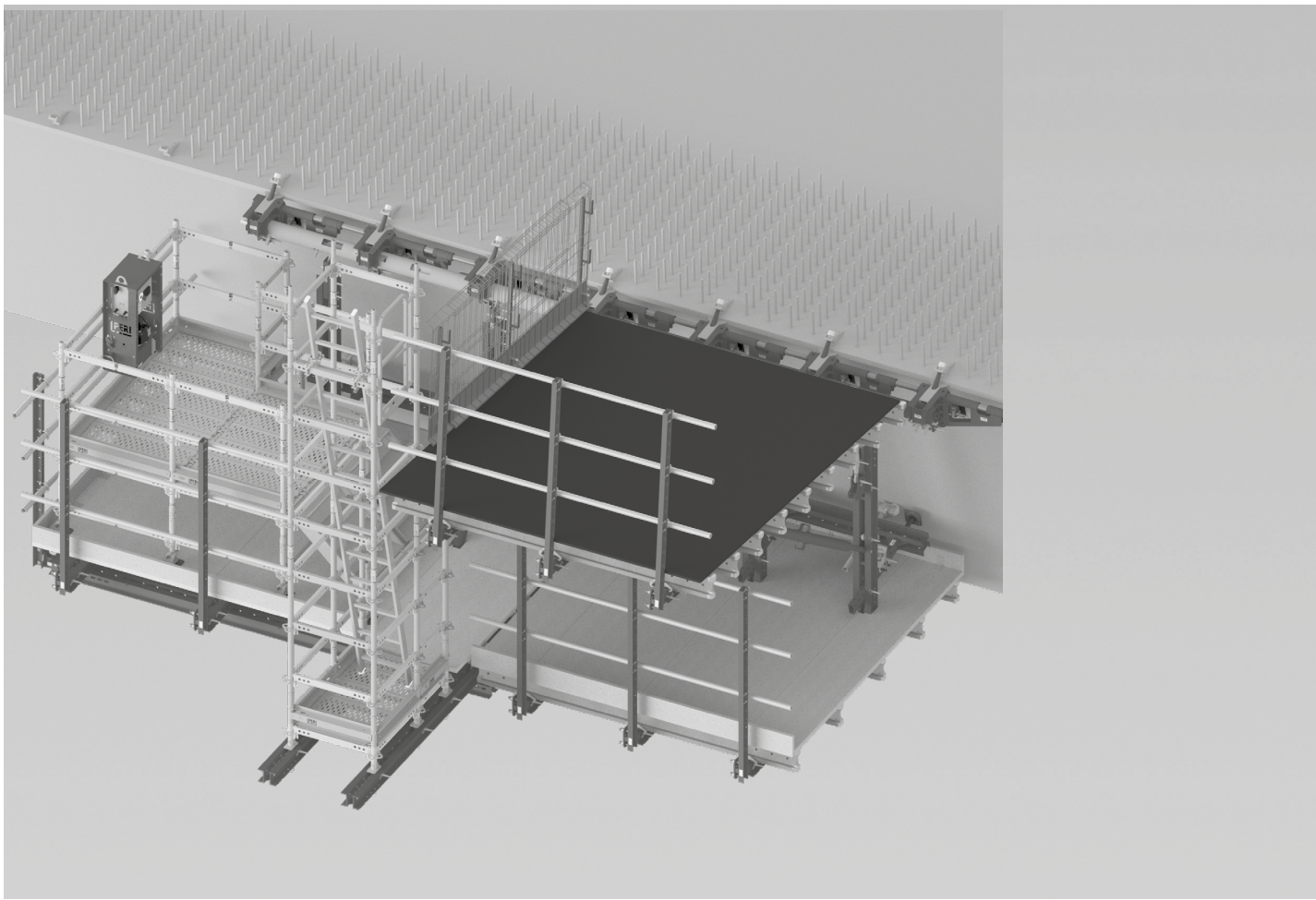
VCT
Composite Track

Instructions for Assembly and Use – Standard configuration – Version 1.0



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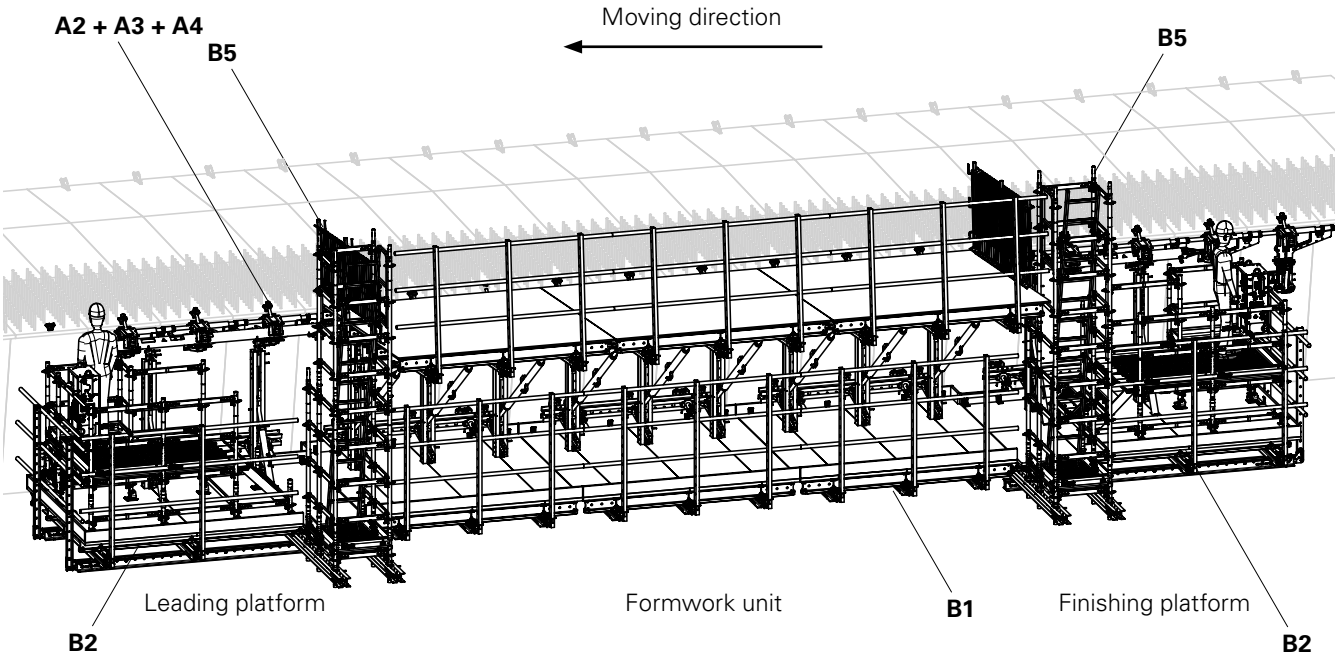
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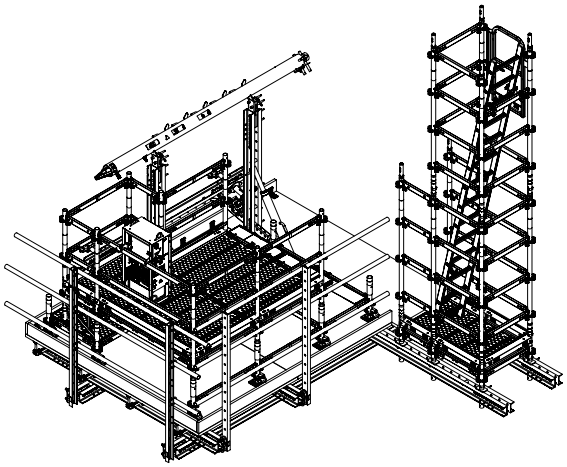
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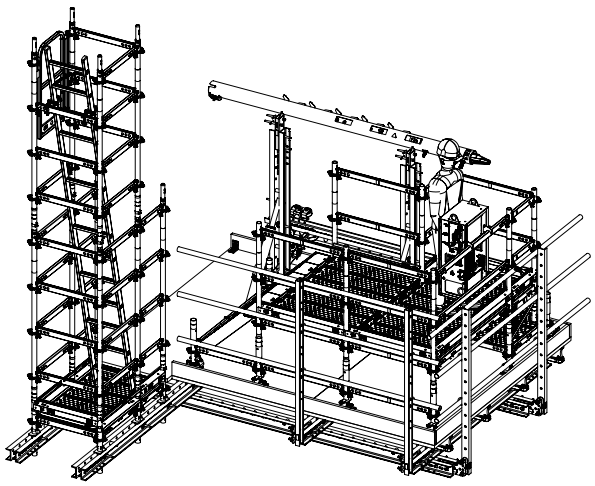
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Main components





Leading platform



Finishing platform

A2 Anchoring
A3 Anchoring with anchor bracket
A4 Anchoring with hole in flange
B1 Formwork unit
B2 Leading platform/finishing platform/lateral protection
B5 Ladder tower

Key

Pictogram | Definition

 Danger/Warning/Caution

 Note

 To be complied with

 Load-bearing point

 Visual inspection

 Tip

 Incorrect use

 Safety helmet

 Safety shoes

 Safety gloves

 Safety goggles

 Personal protective equipment to prevent falling from a height (PPE)

Arrows

- Arrow representing an action
- Arrow representing a reaction of an action*
- Arrow representing forces

* If not identical to the action arrow.

Safety instruction categories
The safety instructions alert site personnel to the risks involved and provide information on how to avoid these risks. Safety instructions can be found at the beginning of the section or before instructions for action and are highlighted as follows:



Danger

This sign indicates an extremely hazardous situation that could result in death or serious, irreversible injury if the safety instructions are not followed.



Warning

This sign indicates a hazardous situation that could result in death or serious irreversible injury if the safety instructions are not followed.



Caution

This sign indicates a hazardous situation that could result in minor or moderate injury if the safety instructions are not followed.



Note

This sign indicates situations in which failure to observe the information can result in material damage.

Format of the safety instructions



Signal word

Type and source of hazard!
Consequences of non-compliance.
⇒ Preventative measures.

Dimensions
Dimensions are usually given in cm. Other measurement units, e.g. m, are shown in the illustrations.

Conventions

- Instructions are numbered with: 1. ....., 2. ....., 3. .....
- The result of an instruction is shown by: →
- Position numbers are clearly provided for the individual components and are given in the drawing, e.g. **1**, in the text in brackets, for example (**1**).
- Multiple position numbers, i.e. alternative components, are represented with a slash: e.g. **1/2**.

Notes on illustrations
The illustration on the front cover of these instructions is understood to be a system representation only. The assembly steps presented in these Instructions for Assembly and Use are shown in the form of examples with only one component size. They are valid for all component sizes contained in the standard configuration.

To facilitate understanding, detailed illustrations are sometimes incomplete. The safety equipment that might not be shown in these detailed illustrations must nevertheless be available.

Target groups

Contractors
These Instructions for Assembly and Use are designed for contractors who either
- assemble, modify and dismantle formwork systems, or
- use them, e.g. for concreting, or
- allow them to be used for other operations, e.g. carpentry or electrical work.

Competent person
(Construction Site Coordinator)
The Safety and Health Protection Coordinator*
- is appointed by the client,
- must identify potential hazards during the planning phase,
- determines measures that provide protection against risks,
- creates a safety and health protection plan,
- coordinates the protective measures for the contractor and site personnel so that they do not endanger each other,
- monitors compliance with the protective measures.

Competent persons qualified to carry out inspections
Due to the specialist knowledge gained from professional training, professional experience and recent professional activity, the competent person qualified to carry out inspections has a reliable understanding of safety-related issues and can carry out inspections correctly. Depending on the complexity of the inspection to be undertaken, e.g. scope of testing, type of testing or the use of certain measuring devices, a range of specialist knowledge is necessary.

Qualified personnel
Formwork systems may only be assembled, modified or dismantled by personnel who are suitably qualified to do so. Qualified personnel must have completed a course of training** in the work to be performed, covering the following points at least:
- Explanation of the plan for the assembly, modification or dismantling of the formwork in an understandable form and language.
- Description of the measures for assembling, modifying or dismantling the formwork.
- Naming of the preventive measures to be taken to avoid the risk of persons and objects falling.
- Naming of the safety precautions in the event of changing weather conditions which could adversely affect the safety of the formwork system as well as the persons concerned.
- Details regarding permissible loads.
- Description of all other risks and dangers associated with assembly, modification or dismantling operations.

- **In other countries, ensure that the relevant national guidelines and regulations in the respective current version are complied with!**
- **If no country-specific regulations are available, it is recommended to proceed according to German guidelines and regulations.**
- **A competent person must be present on site during formwork operations.**

* Valid in Germany: Regulations for Occupational Health and Safety on Construction Sites 30 (RAB 30).

** Instructions are given by the contractor themselves or a competent person selected by them.

Additional technical documentation

- Instructions for Use:
  – Concrete cones and concrete adhesives
- Assembly instructions:
  – Hydraulic Unit RCS Max 2x210bar
  – Hydraulic Unit RCS 4x190/380-460V
  – Drive Rail VCT and hydraulics
  – Assembly Head VCT and hydraulics
- Instructions for Assembly and Use:
  – PERI UP Scaffolding Kit
  – Program overview for VARIOKIT Engineering Construction Kit

Intended use

Product description
PERI products have been designed for exclusive use in the industrial and commercial sectors only by suitably trained personnel.

The VCT Composite Track is used for concreting bridges.

The VCT Composite Track can be adapted flexibly to a wide range of bridge superstructures and carriageway radii.

Main components are standardised PERI components taken from the VARIOKIT Engineering Construction Kit.

The main components are:
- Leading and finishing platforms
- Formwork unit, consisting of
  → Working platform and
  → Cantilevered formwork
- Suspension Head VCT
- Drive Rail VCT

Suspension Heads VCT form the basis of the bridge construction and are attached to the bridge trough at intervals of 1.00 m, 1.25 m or 1.50 m as required. Head stiffeners with adjustable spindles are used for bracing between the Suspension Heads VCT.

Leading and finishing platforms and standards platforms are inserted into and coupled to the Suspension Heads VCT.

The Drive Rail VCT with internal hydraulic cylinder enables the coupled platforms to be moved.

This enables concreting sections to be completed one after the other.

Features
- No interference with the carriageway slab as the technology runs underneath without penetrations and supports.
- Work can be carried out efficiently and to a high standard thanks to free access to the carriageway slab from above.
- Flexible anchor and cycle planning with integrated drive unit.
- Cantilevered formwork can be positioned independently for concreting.
- Mobile solution for a fast relocation procedure.
- Shuttering and striking in two steps.
- The VCT Composite Track can transfer the concreting loads without any additional measures.

Technical data
- Possible influence widths of the Anchor Brackets VCT M30:
  – 1.00 m
  – 1.25 m
  – 1.50 m
- Possible influence widths of the console bracket discs of a formwork unit:
  – 1.00 m
  – 1.50 m
- Project-specific planning required.
- Concreting section length: max. 30 m
- Total weight results from the project-specific planning.
- Temperature range:
  – -20 °C to +60 °C

Live loads:
- Working platform 0.75 kN/m²
- Edge area formwork 1.5 kN/m²
- Leading and finishing platform 1.5 kN/m²
- Access 1.0 kN/m²

Bridge geometry:
- Bridge radius (inside/outside): min. 500 m
- Bridge longitudinal inclination: max. ±7 %
- Bridge transverse inclination: max. ±6 %

Structural steel supporting structure geometry:
- as trough
- as double hollow box
- as double I-girder

Instructions for Use

Use in a manner not intended, deviating from the standard configuration , project-specific planning documents or the intended use detailed in the Instructions for Assembly and Use, represents a misapplication with a potential safety risk, e.g. risk of falling.

Only PERI original components may be used. The use of other products and spare parts is not allowed.

Changes to PERI components are not permitted.

The system described in these Instructions for Assembly and Use may contain patent-protected components.

Additional wind attack surfaces resulting from icing and additional masses were not taken into account.
Superimposition of ice loads with snow and/or wind were not taken into account.

If necessary, these should be verified by way of a project-specific calculation.

Cleaning and maintenance instructions

In order to maintain the value and operational readiness of the formwork materials over the long term, clean the panels after each use.
Some repair work may also be inevitable due to the tough working conditions. The following instructions should help to keep cleaning and maintenance costs as low as possible.

Spray the formwork on both sides with concrete release agent before each use; this makes the formwork easier and faster to clean. Spray the concrete release agent very thinly and evenly!

Spray the rear side of the formwork with water immediately after concreting; this avoids any time-consuming and costly cleaning operations.

When used continuously, spray the formlining elements with concrete release agent immediately after deshuttering; then clean by means of a scraper, brush or rubber lip scraper.
Important: do not clean formlining made of plywood with high-pressure equipment. This could result in the formlining being damaged.

Fix recesses and built-in parts with double-head nails; as a result, the nails can easily be removed later, and damage to the formlining is largely avoided.

Close all unused tie holes with plugs; this eliminates any subsequent cleaning or repair work.
Tie holes accidentally blocked with concrete are cleared by means of a steel pin from the formlining side.

When placing bundles of reinforcement bars or other heavy objects on horizontally supported formwork elements, suitable support, e.g. squared timbers, is to be used; this prevents impressions and damage to the formlining to a large extent.

Internal concrete vibrators should be fitted with rubber caps if possible; as a result, any damage to the formlining is reduced if the internal vibrator is accidentally inserted between the reinforcement and formlining.

Never clean powder-coated components, e.g. elements and accessories, with a steel brush or hard metal scraper; this ensures that the powder coating remains intact.
Use spacers for reinforcement with large-sized supports or extensive areas of support; this largely avoids impressions being formed in the formlining when under load.

Mechanical components, e.g. spindles or gear mechanisms, must be cleaned of dirt or concrete residue before and after use, and then greased with a suitable lubricant.

Provide suitable support for the components during cleaning so that no unintentional change in their position is possible.

Do not clean components suspended on crane lifting gear.

Component list overview

List of components

Pos. no.	Component name	Article no.
1	Cone Bolt VCT M30	140290
2	Nut ISO 4032 M30-8 (standard)	130152
2.1	Protection cap	142024
3	Anchor Bracket VCT M30	140291
4	Cone Socket VCT	141435
5	Suspension Head VCT	141427
5.1	Sliding Plate VCT	141353
5.2	Bolt ISO 10642 M8 x 30-8.8	112469
5.3	Nut ISO 7040 M8-8	711071
6	Support Lever VCT 40	140018
8	Support Lever Plate VCT	140016
9	Rail Track VCT 300	140426
10	Coupler Pin VCT	140293
11	Rail Track Coupler VCT	140519
12	Adjusting Unit VCT	140732
13	Angle Connector SRU VCT	140304
14	Roller Unit Socket VCT	140738
15	Roller Unit VCT	140766
16	Infill Area Support VCT	–
17	Head Bracing VCT 100	140321
18	Head Bracing VCT 125	140317
19	Head Bracing VCT 150	140313
20	Spindle Head Bracing VCT	140775
20.1	Nut for Spindle Head Bracing VCT	–
21	Face Spanner VCT	141484
22	Drive Rail VCT	140846
23	Adapter Drive Rail VCT	141255
24	Striking Lever VCT	140420
24.1	Wingnut Counterplate DW 15	–
24.2	Column tie yoke	037150
25	Wrench Adapter VCT	140748
26	Articulated spindle Ø 21 35 - 47	128490
27	Head bracing	–
28	Fitting Pin Ø21x120 mm	104031
29	Cotter Pin 4/1 ga	018060
30	Corner Connector SRU VARIOKIT	115623
31	Parallel Connector VARIOKIT	166766
32	Bolt Ø 20 x 98	136290
33	Flange Adapter VCT	–
34	Heavy Duty Spindle SLS 80-140	101773
35	Heavy Duty Spindle SLS 100-180	101774
36	Heavy Duty Spindle SLS 200-300	101778
37	Cross Connector VARIOKIT	111279
38	Working platform (assembly)	–
39	Cantilevered formwork (assembly)	–
40	Assembly Head VCT	141611
41	Travelling Nose VCT coat	140843
42	Cover Strip LPS 20x373	125945
43	Bottom chord flange	–
44	Anchor hole	–
45	Stiffener	–
46	Crane chain (mono)	–
48	Tension belt, b=50mm (provided on site)	–
49	Steel plate (provided on site)	–
50	Steel Waler SRU	–
51	End Piece Transport Unit VCT	141620
52	Traction cable	–
53	Guardrail Post RCS/SRU 184	114328
53.1	Screw ISO 4017-M20x100-8.8-ga	114727
53.2	Hex-Nut ISO 7040-M20-8-ga	781053
54	Bracket A64 DIN 3570-M12	110296
55	Scaffold Tube Steel Ø 48.3 x 3.2 mm	026413
56	Girders VT 20K	–
57	Hook Strap Uni HBU 20-24	104931
58	Scaffold Tube Connector VCT	
59	HEX. NUT ISO 4032-M12-8-VZ	710330
60	Leading and finishing platform substructure (assembly)	–
61	Hexagon bolt M30-8.8	–
62	Infill area beam	–
63	Table Lifting Fork 1.75t/8m	103212
	Table Lifting Fork 1.25t/6m	112230
64	Positioning Template VCT	–
65	Bolt ISO 4014 M20 x 280-8.8	725454
66	Nut ISO 7040 M20-8	781053
67	Transport Unit VCT	141639
68	Scaffold Tube Suspens VCT 50	141630
69	Toeboard Steel UPY	–
70	Toe Board 15 x 3	–
71	Formwork Girder GT 24	–
72	Wood Screw 6x40 SK-TX30 HPI	024540
73	Reinforced angle bracket 90°	123478

Tab. 01

Component list overview

List of components

Pos. no.	Component name	Article no.
74	Wood Screw 6x80 SK-TX30 HPI	024690
75	Platform decking (e.g. multi-layer plywood sheets)	–
76	Horizontal Ledger UH-2	–
77	Base Standard Variokit UVA	136778
78	Locking Pin Ø48-57 mm	111053
79	Ladder Connector Ledger UAM-S	134520
80	Aluminium Ladder UAI	–
81	Adj. Base Plate UJB 38-36/17	116762
81.1	Clamp nut	100480
82	Spindle Counterplate VARIOKIT	114618
83	Handle Locking UJS	100863
84	Guardrail Post HSGP-2	116292
85	Formlining	–
86	Round sling	–
87	Guardrail Holder GT 24/VT 20	101290
88	PROKIT Side Mesh Barrier PMB	–
89	Crane Eye-2 CB 240 0.7t	127821
90	Protective strips with magnets	–
90.1	Pot magnet Ø 32 mm	845270
90.3	Washer ISO 7093	127036
90.4	Screw M 5x12 mm	136874
91	Steel Deck UDG-2 25x75	132488
92	Steel Deck UDG-2 25x100	132492
93	Console Bracket ECM 50	136923
94	Base Standard UVB 25	133499
100	Hydr. Accum. Piece RCS	112421
101	Hydr.Twin Hose RCS 10m	110069
	Hydr.Twin Hose RCS 20m	110070
102	Hydr.Hoses 853-2SN-DN08-FF	–
103	Hydr.P. RCS MAX 2x210/380-460V	135500
	Hydraulic Unit RCS 4x190/380-460V	109766
104	Power Cab. RCS MAX CEE-32A 2m	135499
105	Round steel Ø 15 mm	–
107	Power Conn. Cable RCS MAX 10m	135498
	Power Conn. Cable RCS MAX 20m	135501
108	Connector Power Cable RCS MAX	135502
111	Data Conn. Cable RCS MAX 10m	135503
	Data Conn. Cable RCS MAX 20m	135504
112	Conn. Data Cable RCS MAX	135505

Pos. no.	Component name	Article no.
113	Remote Control RCS MAX	135506
114	Display RCS MAX	135507
115	Tension belt	–
116	Screw ISO 4017-M12x060-8.8-ga	126001
117	Washer ISO 7089-12-200HV-ga	723805
118	Nut ISO 4034-M12-5	723805
119	Data Conn. RCS MAX wireless	136531
120	Remote Contr. RCS MAX wireless	136530
121	Pallet RP Hydr.Pump RCS MAX	136165
122	Power Cable RCS MAX 2m	136532
123	Hydraulic oils ISO 11158	–
124	Long Term Fat LT 200 EP /25kg	727105
125	Flow Divider RCS MAX 2/4x210	141572

Tab. 01

Overview of tightening torques

Tightening torques

Unless otherwise indicated, PERI recommends the following guide values for screw connections as "hand-tightened" tightening torques $M_{A,hand\text{-}tightened}$.
These guide values are based on EN 15048 with minimum Safety Factor 3 against breakage.

Quality class	**Quality 4.6**		**Quality 8.8 and 10.9**
Lubrication	**Lightly oiled**	**MoS2**	**Undefined**
M8 screw	8 Nm	6.6 Nm	8 Nm
M10 screw	16 Nm	13.0 Nm	16 Nm
M12 screw	30 Nm	23.0 Nm	30 Nm
M16 screw	65 Nm	54.0 Nm	65 Nm
M20 screw	100 Nm		100 Nm
M24 screw	150 Nm		150 Nm
M30 screw	260 Nm		260 Nm
M36 screw	350 Nm		350 Nm

Tightening torques have been determined for the following components:

Scaffolding tube coupling	50 Nm

Tab. 02

Bolts and nuts used

		ISO screws					
		ISO		Length	Quality	Coating	Part number
Angle Connector SRU VCT	Screw	4017	M16	130	8.8	VZ	123973
	Nut	4032	M16	–	8	VZ	710229
Adjusting Unit VCT	Screw	4014	M20	280	8.8	VZ	725454
	Nut	7040	M20	–	8	VZ	781053
Infill Area Support VCT	Screw	4017	M16	190	8.8	VZ	131318
Anchor bracket	Nut (standard)	4032	M30	–	8	VZ	130152
	Nut (high)	6334	M30	–	8	VZ	140767

Tab.03

Cross-system



Safety instructions apply to all service life phases of the system.

General information
The contractor must ensure that the Instructions for Assembly and Use supplied by PERI are available at all times and understood by the site personnel.

These Instructions for Assembly and Use can be used as the basis for creating a risk assessment. The risk assessment is compiled by the contractor. The Instructions for Assembly and Use are not a substitute for a risk assessment!

Observe and comply with the safety instructions and permissible loads.

For the application and inspection of PERI products, the current safety regulations and guidelines valid in the respective countries must be observed.

Materials and working areas are to be inspected before each use and assembly for:
- damage,
- stability and
- functional integrity.

Damaged components must be exchanged immediately on site and no longer used.

Safety components are to be removed only when they are no longer required.

When on slab formwork, scaffolds and working platforms:
- do not jump,
- do not run,
- do not drop anything from or onto it.

Components provided by the contractor must comply with the characteristics stipulated in these Instructions for Assembly and Use and all applicable laws and standards. Unless otherwise indicated, the following applies in particular:
- Timber components:
  Strength class C24 for solid wood according to DIN EN 338:2016-07.
- Scaffolding tubes:
  Galvanised steel tubes with minimum dimension Ø 48.3 x 3.2 mm according to DIN EN 12811-1:2004-03 4.2.1.2.
- Scaffolding tube couplings:
  according to DIN EN 74-1:2022-09 and DIN EN 74-2:2022-09.

Deviations from the standard configuration are only permitted after a further risk assessment has been carried out by the contractor.

Appropriate measures for working and operational safety, as well as stability, are defined on the basis of this risk assessment.

Corresponding proof of stability can be provided by PERI on request, if the risk assessment and resulting measures to be implemented are made available.

Nails and wood screws must not protrude. Only allow other connecting components to protrude to the extent that is necessary.
If necessary, mark protruding components or fit them with protective material.
Secure all bolts with cotter pins and all screws with nuts

Before and after extraordinary events that may have damaging effects on the safety of the system, the contractor must immediately
- produce another risk assessment, the results of which must be used to implement suitable measures to ensure the stability of the system,
- arrange for an extraordinary inspection to be carried out by a competent person qualified to do so. The aim of this inspection is to detect and repair damage in good time in order to ensure safe use of the system.

Exceptional events could be:
- accidents, fire, explosions, collisions,
- long periods of non-use,
- natural events, e.g. heavy rainfall, heavy snowfall, significant icing, storms or earthquakes.

Suitable measures could be:
- removing nets/tarpaulin,
- clearing snow and ice,
- reducing live loads,
- securing loose materials.

Assembly, modification and dismantling work
PERI systems may only be assembled, modified or dismantled under the supervision of a person qualified to do so and by suitably qualified employees. The qualified personnel must have received appropriate training for the work to be carried out with regard to specific risks and dangers.

On the basis of the risk assessment and Instructions for Assembly and Use, the contractor must create installation instructions in order to guarantee safe assembly, modification and dismantling of the climbing unit.



The contractor must ensure that the personal protective equipment required for the assembly, modification or dismantling of the scaffolding system, e.g.
- Safety helmet,
- Safety shoes,
- Safety gloves,
- Safety goggles,

is available and used as intended.

For work at a higher level, use an approved ladder or platform system, or an assembly scaffold.



If personal protective equipment against falling from a height (PPE) is required or specified in local regulations, the contractor must determine appropriate attachment points on the basis of the risk assessment.
The PPE to be used to prevent falling is determined by the contractor.

The contractor must provide safe working areas for site personnel which are to be reached via safe access routes.

The contractor must ensure that the following points are observed:
- If necessary, secure single components and assemblies to prevent them from falling, e.g. using ropes.
- Cordon off and signpost danger zones.
- Ensure stability during all construction stages.
- Ensure and demonstrate that all loads that occur are safely transferred.

Use
Every contractor who uses or allows the PERI systems to be used, is responsible for ensuring that the equipment is in good condition.

If the system is used successively or at the same time by several contractors, the health and safety coordinator must point out any possible mutual hazards and all work must then be coordinated.

When systems are used in publicly accessible areas,
- measures to prevent unauthorised use, e.g. enclosure of access areas, must be taken.
- measures are taken against injuries caused by bumping against protruding components, e.g. assembly of protective components.

Always keep the contact surfaces of the system free of dirt, objects, snow and ice.
Close off the system in extreme weather conditions.

System-specific



Safety instructions apply to all service life phases of the system.

Project-specific planning is required each time a VCT Composite Track is assembled, e.g. a detailed static calculation.

Before entering the system, check for completeness of the platform deck and for danger spots and use PPE if necessary.

Deshutter the concreting sections only when the concrete has sufficiently hardened and the person in charge has given the go-ahead for deshuttering to take place.

Inspection of the anchoring and associated components must be carried out by the party responsible.

The hydraulic drive rail for controlling the system may only be operated from the operator station on the leading or finishing platform. Only the operator is allowed to be there.

During the pulling procedure, leading edges are created. Suitable safety measures to prevent falling must be implemented.

The following is not permitted:
- Overloading the pulling unit.
- Overloading the suspension point.
- Site personnel are not allowed to remain in the area of the hydraulic winch during the moving procedure.

Working areas at great heights are to be secured by means of appropriate measures to prevent objects from falling down.

The enclosure of the platform or mounting of additional surfaces exposed to the wind changes the degree of stability and must be rechecked. If necessary, additional measures must be implemented.

Use a guide rope to ensure that assembled units suspended from the crane are fully under control when being moved.

Welding or abrasive cutting work is prohibited on the platforms due to the associated fire hazard.

Reliable lightning conduction must be ensured by the contractor.

Assembly work
The contractor must ensure that the user has an appropriate and sufficient number of tools, lifting equipment and slings, suitable and sufficient space for assembly and storage as well as adequate crane capacity at their disposal.

During the transportation procedure, only use the specified attachment points for components.

Avoid standing under suspended loads. If work under suspended loads cannot be avoided, come up with suitable safety measures and apply them. Avoid standing between a fixed object and an object that is drawing near.

Secure interim assembly states by means of temporary supports in order to prevent any items from toppling over.

The contractor must make a level assembly area with sufficient load-bearing capacity available.

Unexpected hazards can always arise when assembly work is carried out. Assess the degree of risk in each individual case and, if necessary, take measures to prevent or minimise the risk.

If guardrails cannot be used or have to be removed due to operational reasons, safety equipment must be installed in their place in order to prevent falls from any height.
If the use of anti-fall equipment is deemed to be inappropriate, personal protective equipment (PPE) can be used if suitable fixing points are available.

Site personnel are forbidden to remain in areas below where assembly work is being carried out, unless the danger zone has been provided with sufficient protection against falling, overturned, sliding or rolling objects and masses. Cordon off and clearly mark any danger zones and check that these are in place and complete every time work is commenced.

Do not walk on components or assembly units.
Find a secure standing position next to the components or assembly units. Use assembly scaffolds.

Always keep components and assembly units free of dirt, ice and snow.

Access
Safe access to all working areas must be guaranteed at all times.

Passages and openings to accessible working areas must be kept closed during working operations.

Use walkways, stairs, stair towers or site lifts as passageways. Ladders are suitable for use as passageways in exceptional cases only.

Ladders must not be connected to each other for more than two levels and should be offset against one another.

Ladders must be secured on the outer side by means of appropriate anti-fall equipment such as ladder cages or safety nets.

Building edges at passages and openings in accessible areas must be secured.

In case of danger, it must be ensured that working areas can be vacated via emergency escape routes or rescue equipment.

It must also be ensured that at least one emergency escape route or piece of rescue equipment can still be used if the power supply fails.
Determine and apply all appropriate measures.

Throughout the entire moving procedure, ensure that site personnel can still use the emergency escape route.

In case the access hatches are blocked when retracting the formwork, ensure that site personnel can still use the emergency escape route.

Anchoring
Anchoring is to take place only if the anchorage has sufficient concrete strength.

During the assembly of the scaffold anchoring and the installation of the bracket scaffold, the contractor entrusted with this or the competent person appointed by them must be present. This ensures that the work is properly completed. Verification of the existing concrete strength as well as the inspection of single components, proper assembly and the anchoring depth must be documented. Proof must be provided that all load transfers in the building are distributed into the ground.

Damaged anchoring components or advanced mountings must not be used.
Examples of damage:
- deformed components
- rough or scratched surfaces
- rough-running/deformed threads
- deformed hexagon in Cone Bolt VCT M30

Protection against falling components
Work activities must not be carried out simultaneously on areas positioned on top of each other if the lower working areas are not protected against falling objects.

Avoid installing working areas and access routes in danger zones.

If this is not possible due to work procedures, suitable protective measures must be available to provide protection against falling objects. This also applies to work that only takes a short period of time.

Safety nets (mesh size ≤ 2 cm) and platform planking are considered to be suitable means and are to be installed very close to the structure (distance ≤ 5 cm).

Secure all bolts with cotter pins and all screws with nuts.

Secure tools and materials to prevent them from falling down. Remove concrete residue and other dirt as soon as possible, at the latest before the next work cycle. The platforms are to be kept clean at all times.

Operational working areas at great heights are to be secured by means of appropriate structural measures to prevent objects from falling down.

Components that are likely to become unstable
Secure components that are likely to become unstable with suitable means, e.g. using push-pull props, or leave them attached to the crane until the tipping hazard has been eliminated.

Loitering in the tipping range is prohibited. Draw attention to and clearly mark any danger zones.

If necessary, cordon off the danger zones with suitable means. Check that safety signs and barriers are in place before commencing work.

Hydraulic components
Visual inspections are to be carried out by authorised personnel at regular intervals.
Qualified personnel are to carry out a functionality check before every working cycle or before assembly takes place.
If any defects are discovered, repairs are only allowed to be carried out by qualified personnel.

Hydraulic hoses have an expiry date. Observe the manufacturer-specific information.

Do not suspend any objects from the hydraulic hoses.

Observe the manufacturer-specific information regarding inspection and maintenance of the hydraulic pump.

For correct use and disposal of the hydraulic oil, observe the manufacturer-specific instructions.

Thicken spilled hydraulic oil immediately with oil binder and mop it up.



Wear safety goggles and suitable protective gloves when working on the hydraulic system.



PERI recommends the use of an oil pan to collect hydraulic oil from the hydraulic pump.



Note

Always de-energise the hydraulic pump and secure it against being switched on again as soon as the climbing or travel system has been moved.
This safety measure also applies to the following:
- Assembly.
- Maintenance.
- Repairs.
- Inspections.
- Dismantling.

Approval for use is the responsibility of the operating personnel.

Electrical components



Danger

High electric voltage at the hydraulic pump!
Death or serious injury can result from an electric shock.
⇒ Connection only by qualified personnel.
⇒ Only qualified personnel may carry out work and repairs on the electrical components of the systems.
⇒ Only approved, undamaged and tested connecting cables should be used.

Only operate the hydraulic pump with the type of current and voltage specified on the type plate.

Do not suspend any objects from the electrical lines.

Storage and transportation

Store and transport components in such a way that no unintentional change in their position is possible. Detach load-lifting accessories and lifting gear from the lowered components only if they are in a stable position and no unintentional change is possible.

Do not drop the components.

Use PERI load-lifting accessories and lifting gear and only the load-bearing points provided on the component.

During the moving procedure
- Ensure that components are picked up and set down in such a way that unintentional falling over, falling apart, sliding, falling down or rolling is avoided.
- No one is allowed to remain under the suspended load.

Pre-assembled assemblies should always be guided with ropes when moving them by crane.

The access areas on the construction site must be free of obstacles and tripping hazards, and must also be slip-resistant.

For transportation, the substrate must have sufficient load-bearing capacity.

Use original PERI storage and transport systems, e.g. crate pallets, pallets or stacking devices.



For hydraulic components, follow the instructions in the assembly instructions “ACS 100 Climbing Device and Hydraulics”.

A1 Load conditions

Danger

Load specifications must not be exceeded!
Risk of falling from the VCT Composite Track.
People or parts of the VCT Composite Track may fall down!
This can lead to serious injuries or even death.

⇒ Project-specific static calculations for load-bearing capacity are required.
⇒ Do not place any materials or other objects anywhere on the VCT Composite Track.
⇒ For "Load Case: Concreting", only access the work platform to carry out inspection work.

The specified, permissible loads must be used for static dimensioning or determined on a project-specific basis.
Wind loads (with or without full enclosure) must be determined on a project-specific basis.
Snow and ice loads may have to be considered separately.

Working/concreting

The supporting structure of the VCT Composite Track is to be provided with project-specific verification by means of a static calculation on the basis of PERI product information as well as valid standards.
The load transfer of the rail track can be applied to the suspension heads at any point. It is not necessary to position the rail precisely in relation to the suspension heads.
Proof must be provided that all load transfers in the building are distributed into the ground.

Work processes in the load case:
- Cleaning the formwork,
- Reinforcing the VCT Composite Track,
- Closing the formwork,
- Concreting,
- Striking,
- Inspection and maintenance.

Formwork unit

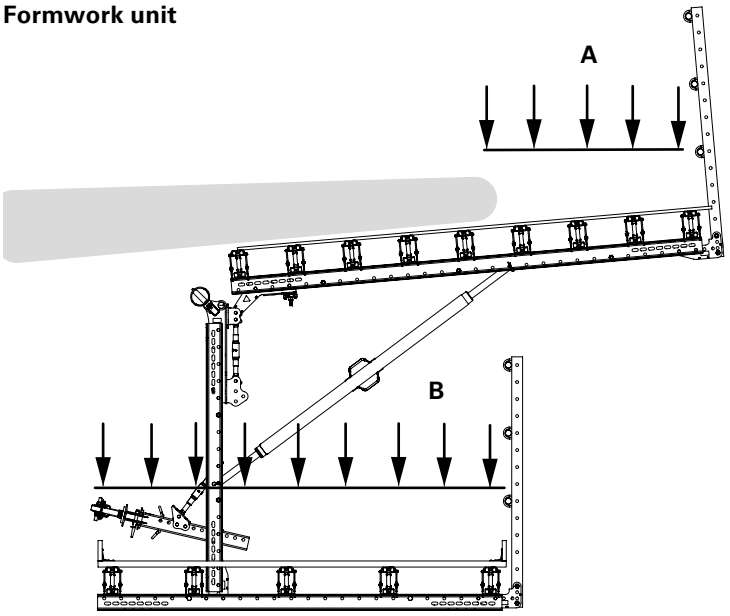


Fig. A1.01

Leading and finishing platform

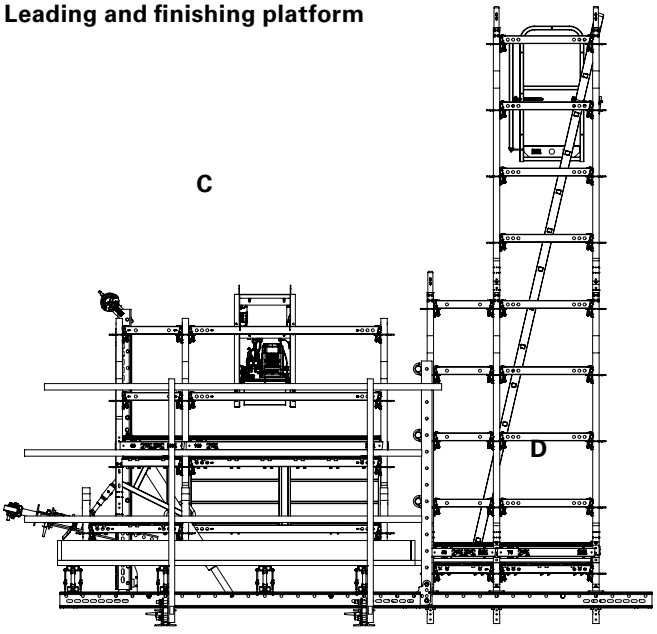


Fig. A1.02

Load Case: Working/Concreting	
Live Load A	1.50 kN/m²
Live Load B	0.75 kN/m²
Live Load C	1.50 kN/m²
Live Load D	1.00 kN/m²
Max. working wind speed	0.20 kN/m² (vW = 64 km/h)
Dead weight of concrete with additional loads	in accordance with the static calculation

Tab. A1.01

Load Case: Storm	
Live Load A	0.00 kN/m²
Live Load B	0.00 kN/m²
Live Load C	0.00 kN/m²
Live Load D	0.00 kN/m²
Wind gust velocity	in accordance with the static calculation
Dead weight of concrete with additional loads	in accordance with the static calculation

Tab. A1.02

Moving the carriage

Danger

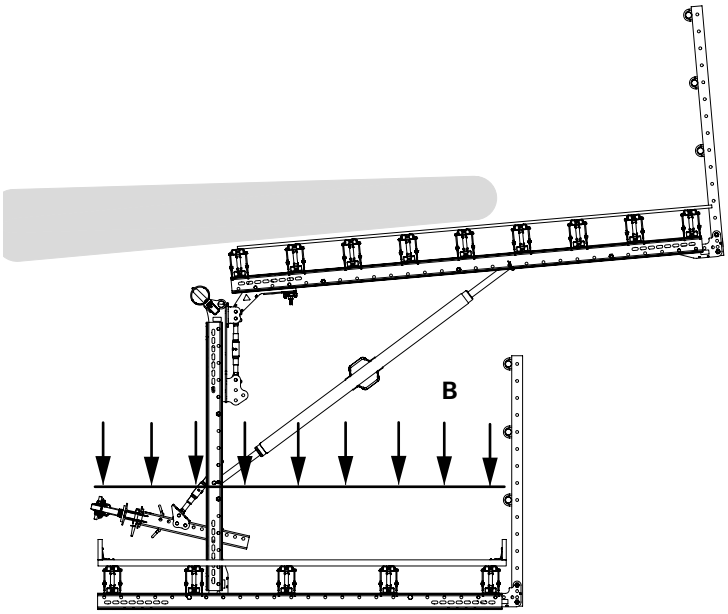
Unsecured concrete edges can result in a fall!

A fall can result in serious injuries or even death

⇒ Assembly and dismantling should take place from a safe and secure working area, e.g. lifting platform

⇒ Use PPE.

- Load specifications must not be exceeded.
- Do not place any materials or other objects anywhere on the VCT Composite Track.



Load Case: Moving	
Live Load A	0.00 kN/m²
Live Load B	0.75 kN/m²
Live Load C	1.50 kN/m²
Live Load D	1.00 kN/m²
Max. working wind speed	0.20 kN/m² (vW = 64 km/h)

Tab. A1.03

Positioning and installation of the ties

Check anchoring components and advance mountings for any signs of damage prior to installation.
Damaged anchor parts or cone bolts must not be used.
Examples of damage:

- deformed components
- rough or scratched surfaces
- rough-running/deformed threads
- deformed hexagon socket in cone bolt

Tie spacing in a longitudinal direction

3 different tie spacings (b2) are possible depending on the size and geometry of the cantilever arm: 1.00 m, 1.25 m and 1.50 m.
The transition of the bridge cantilever in the area of the abutment must be planned on a project-specific basis.
The distance to the abutment wall (b1) is determined from the cantilever arm of the standard platform unit and the project-specific requirements in the area of the first concreting section and the last concreting section in Table A2.01.

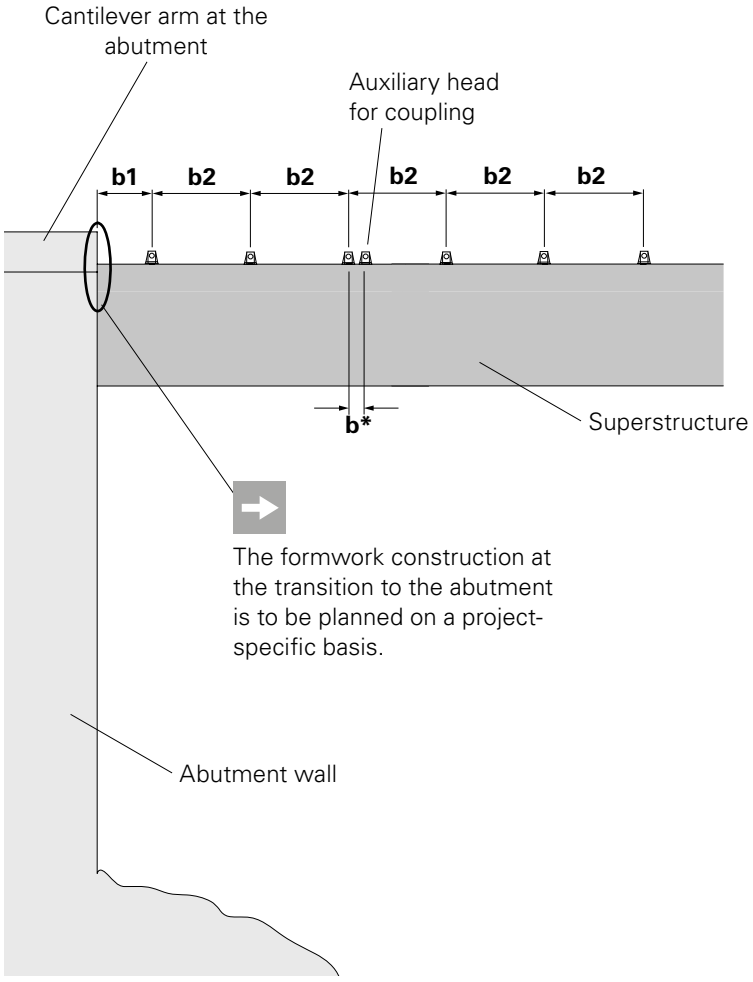


Fig. A1.03

Check installation

- edge distance,
- spacing,
- fully welded on,
- planned position.

Tie inspection by a competent person and the reinforcement acceptance process can be carried out at the same time. PERI recommends compiling an acceptance report.

Tie spacing	b1 [cm]	b2 [cm]	b* [cm]
100	50	85 – 100	–
125	63	110 – 125	–
150	75	135 – 150	30

Tab. A1.01

Anchoring with anchor bracket
Variant 1

The Suspension Head VTC (**5**) can be anchored to the steel trough in two ways.

Components:

1 Cone Bolt VCT M30
2 Hex-Nut ISO 4032-M30-8-ga
2.1 Protection cap
3 Anchor Bracket VCT M30
4 Cone Socket VCT
4.1 Contact plate
4.2 Screw
4.3 Nut
5 Suspension Head VCT

Variant 1:
Anchor Bracket VCT M30 (3) welded to steel trough

Benefits and recommended use for:
- Steel trough with low flange projection.

(Fig. A2.01)
- variable flange thickness d, but with flat (linear) upper edge of flange (reference edge is upper edge of flange).

Restrictions:
- The minimum flange thickness is d = 14 mm.
  → Support for Cone Socket VCT min. 9 - 10 mm

(Fig. A2.01)

The contact plate can be customised on a project-specific basis.
1. Loosen the screw (**4.2**) from the nut (**4.3**) and remove it.
2. Rotate the contact plate (**4.1**) by 180° and fit it on the Cone Socket VCT (**4**) using the screw (**4.2**) and nut (**4.3**).

Variant 1 – welded-on anchor bracket

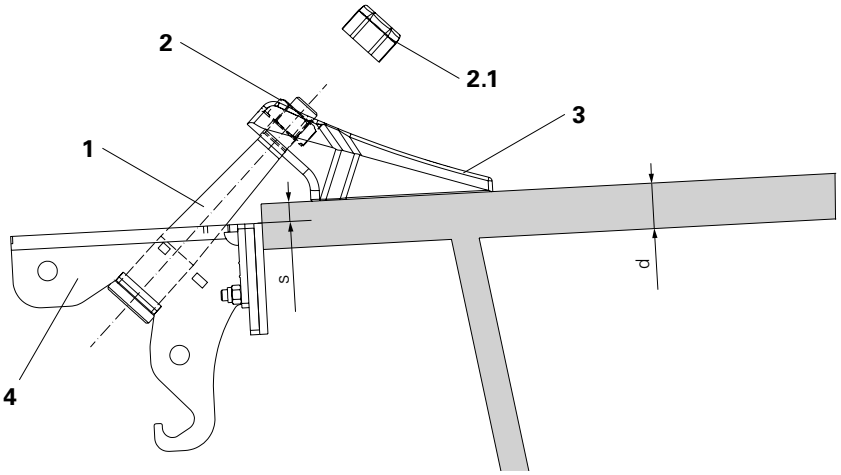


Fig. A2.01

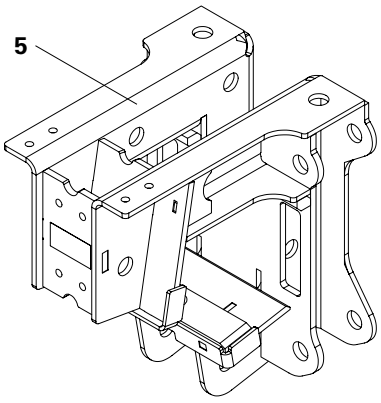


Fig. A2.02

Contact plate position 1 (dimension s = 0.0 mm)

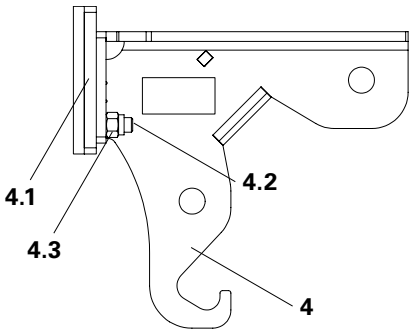


Fig. A2.03

Contact plate position 2 (dimension s = 21 mm)

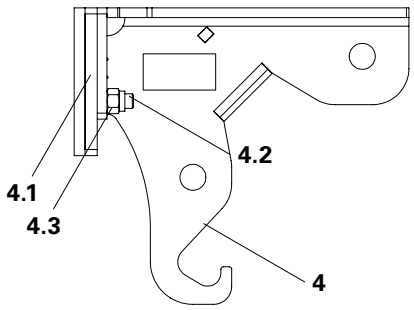


Fig. A2.03a

Anchoring with hole in flange
Variant 2

The Flange Adapter VCT (**33**) is a project-specific component.

Variant 2 – Hole in the flange

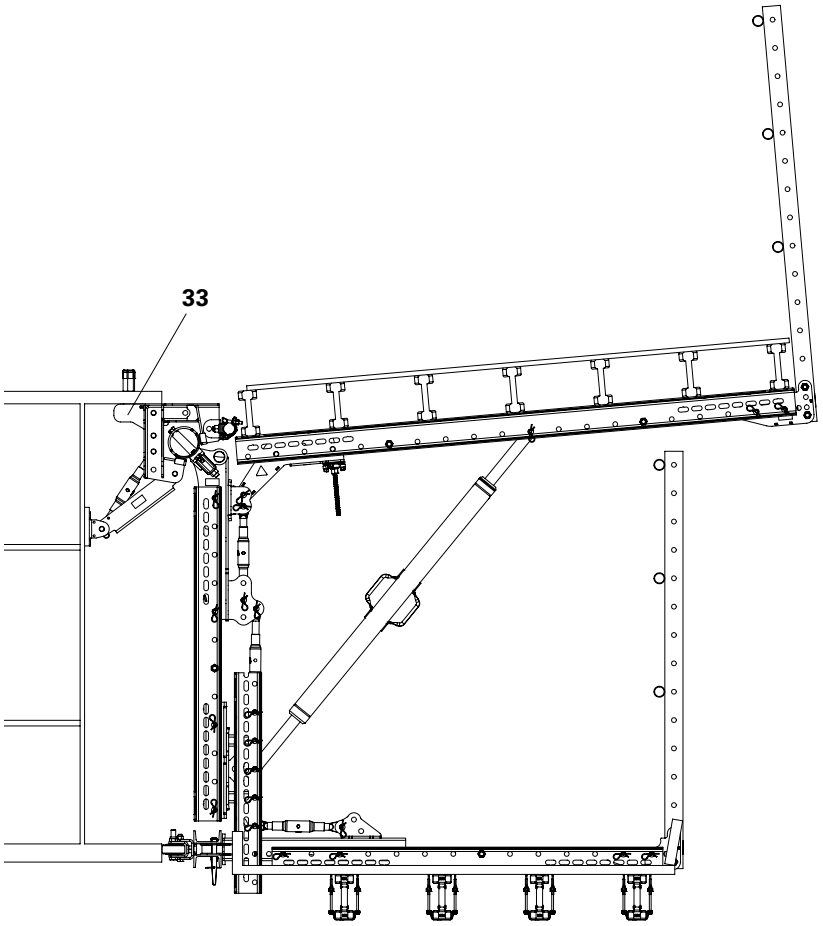


Fig. A2.04

Welding on the anchor bracket

Danger

Risk of people falling from the bridge flange!
This can lead to serious injuries or even death.
⇒ Carry out assembly from a safe working position or wear PPE.

The Anchor Bracket VCT M30 (**3**) is also embedded when concreting the cantilever arm.

Required components per tie point

3	Anchor Bracket VCT M30	1x

Assembly

1. Weld Anchor Bracket VCT M30 (**3**) all the way round with the required weld seam of a_w = 5 mm.

(Fig. A3.01a)

- A structural engineer must verify the introduction and transmission of the reaction forces into the substructure by way of calculations.
  → They are responsible for ensuring that all reaction forces are correctly transferred to the steel substructure.
- The spacing between the Anchor Brackets VCT M30 (**3**) must be optimised for each specific project.
- Dimension "d" indicates the distance to the edge and is d = 55 mm ± 1 mm.
- Maintain the selected dimension "d" over the entire length of the bridge.)
- Observe the edge distance "d" and side distances of the Anchor Brackets VCT (**3**) "b1" and "b2" (see "A2 Anchoring" on page 20).

(Fig. A3.01 + Fig. A3.01a + Tab. A1.01)

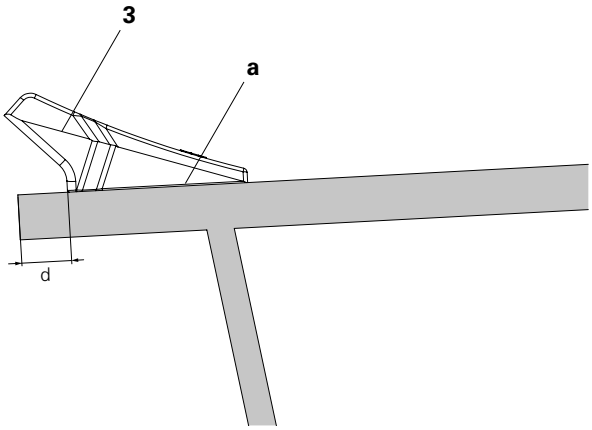


Fig. A3.01

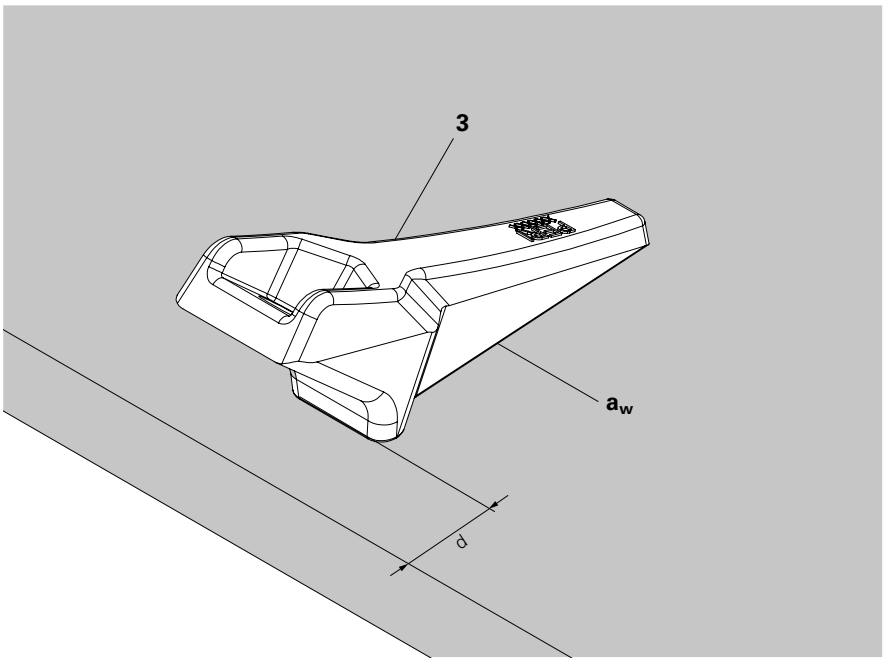


Fig. A3.01a

Concrete cover

- Ensure that the project-specific concrete cover is in place. If the required concrete cover is not maintained, the anchor bracket must be provided with suitable corrosion protection.
- Apply to the steel structure after welding.
- Surface coatings such as priming, painting or galvanising are suitable options.

A3 Anchoring with anchor bracket

Fitting the cone socket

- The Anchor Bracket VCT M30 (**3**) serves as a suspension point for the Cone Bolt VCT M30 (**1**).
- There is a recess in the anchor bracket for accommodating a hexagon nut → Hexagon nut ISO 4032-M30-8 (article no.: 130152).
- The recess prevents the nut from turning when removing the Cone Bolt VCT M30 (**1**).

Preparation
The anchor bracket is welded on (see "Anchoring with anchor bracket" on page 23).

Components:

1	Cone Bolt VCT M30
2	Nut ISO 4032 M30-8
2.1	Protection cap
3	Anchor Bracket VCT M30
4	Cone Socket VCT

Assembly
1. Insert the hexagon nut M30-8 (**2**) into the hexagon socket of the Anchor Bracket VCT M30 (**3**).

(Fig. A3.02)

2. Insert Cone Bolt VCT M30 (**1**) through Cone Socket VCT (**4**) from below and screw it into hexagon nut M30 (**2**).

(Fig. A3.03 + Fig. A3.03a)

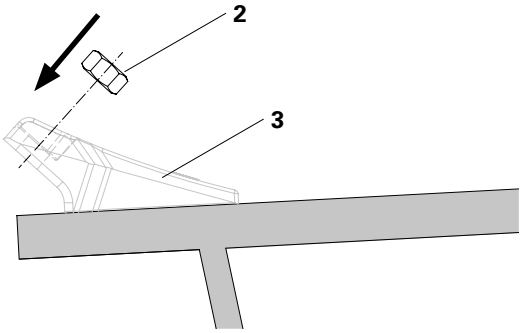


Fig. A3.02

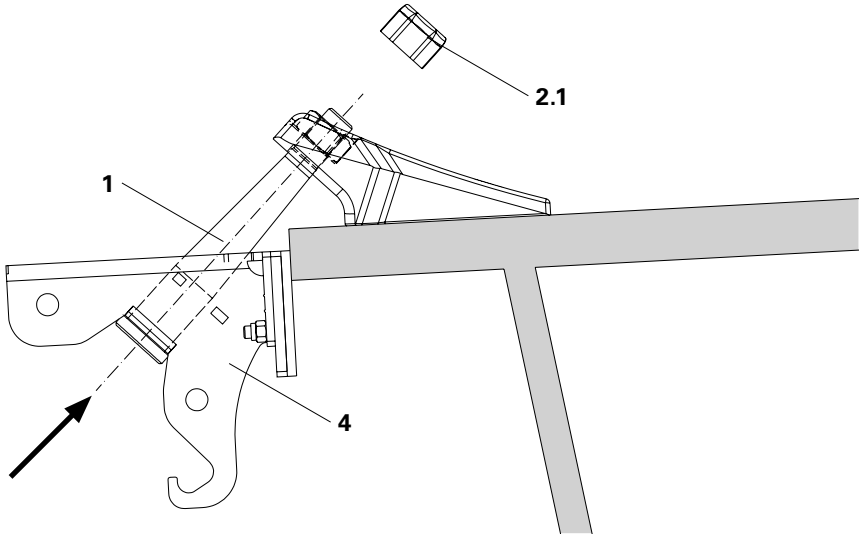


Fig. A3.03

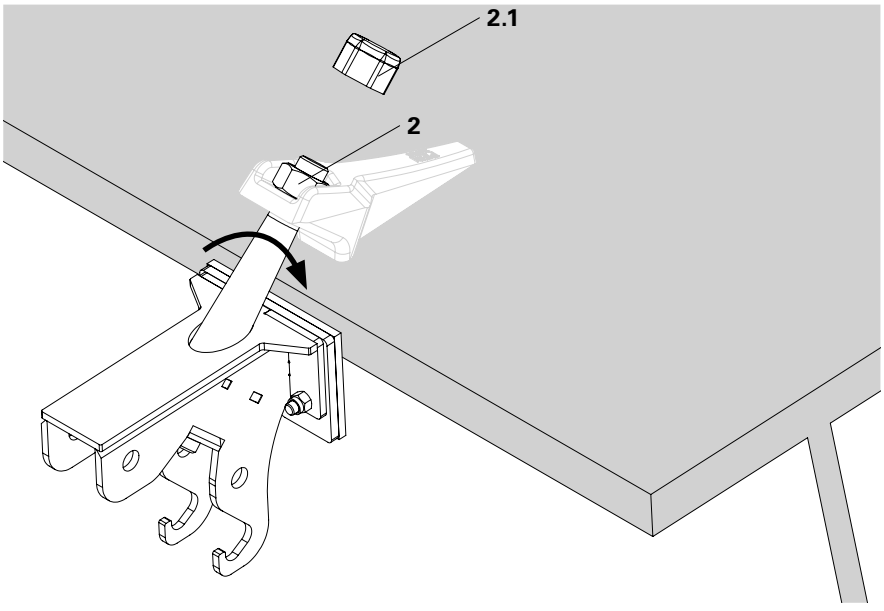


Fig. A3.03a

3. Align the Cone Socket VCT (**4**).
   → Option 1 – Measuring:
   Screw in the Cone Bolt VCT M30 (**1**) until the upper edge of the Cone Socket VCT (**4**) is 21 mm below the upper edge of the steel trough.
(Fig. A3.04)
   → Option 2 – Template with magnets:
   Position the Positioning Template VCT (**64**) with magnets on the steel trough and tighten the Cone Bolt VCT M30 (**1**) until the Cone Socket VCT (**4**) is in contact with the Positioning Template VCT (**64**).
(Fig. A3.05)
4. Check whether the thread of the Cone Bolt VCT M30 (**1**) is sealed with the protection cap (**2.1**). If not, fit the protection cap (**2.1**).
   → Concrete must not get onto the thread.
(Fig. A3.06)

- Is the distance between the Cone Socket VCT (**4**) and the upper edge of the cone socket 21 mm?
- Alternatively: Is the Cone Socket VCT (**4**) in contact with the Positioning Template VCT?

(Fig. A3.04 + Fig. A3.05)

- Is the thread of the Cone Bolt VCT M30 (**1**) sealed by the protection cap (**2.1**)?

(Fig. A3.06)

The Cone Socket VCT(**4**) is fitted and ready to receive the Suspension Head VCT (**5**).

Option 1 - Measuring

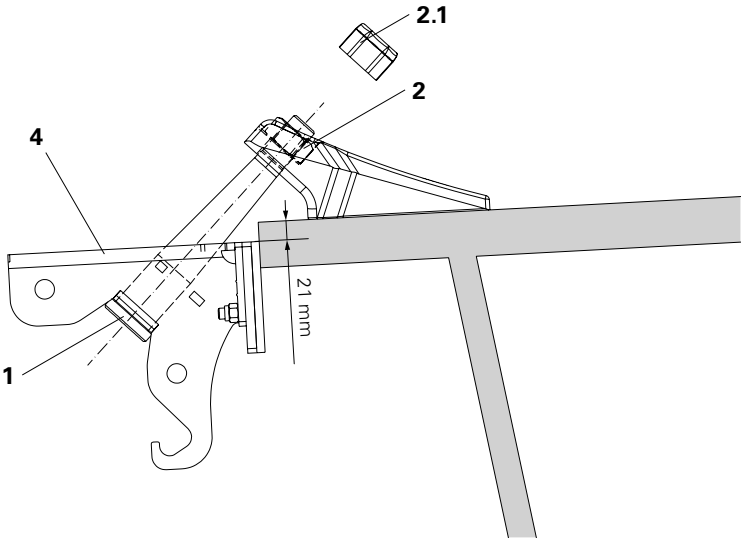


Fig. A3.04

Option 2 - Template

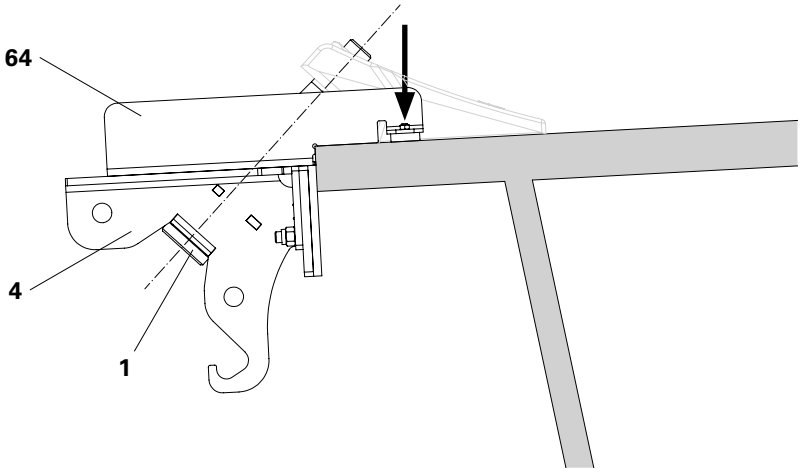


Fig. A3.05

Fig. A3.06

Fastening the suspension head

Fit the Suspension Head VCT (**5**) from a safe working position, e.g.
- Leading, finishing platform
- Telescopic work platform
- Temporary working scaffold

(Fig. A3.07)

Components

1 Cone Bolt VCT M30
2 Nut ISO 4032 M30-8
2.1 Protection cap
3 Anchor Bracket VCT M30
4 Cone Socket VCT
5 Suspension Head VCT
5.1 Sliding Plate VCT
5.2 Bolt ISO 10642 M8 x 30-8.8
5.3 Nut ISO 7040 M8-8
6 Support Lever VCT 400
8 Support Lever Plate VCT
8.1 Wooden panel
9 Rail Track VCT 300
26 Articulated spindle Ø 21 35 - 47
29 Cotter Pin 4/1 ga
32 Bolt Ø 20 x 98

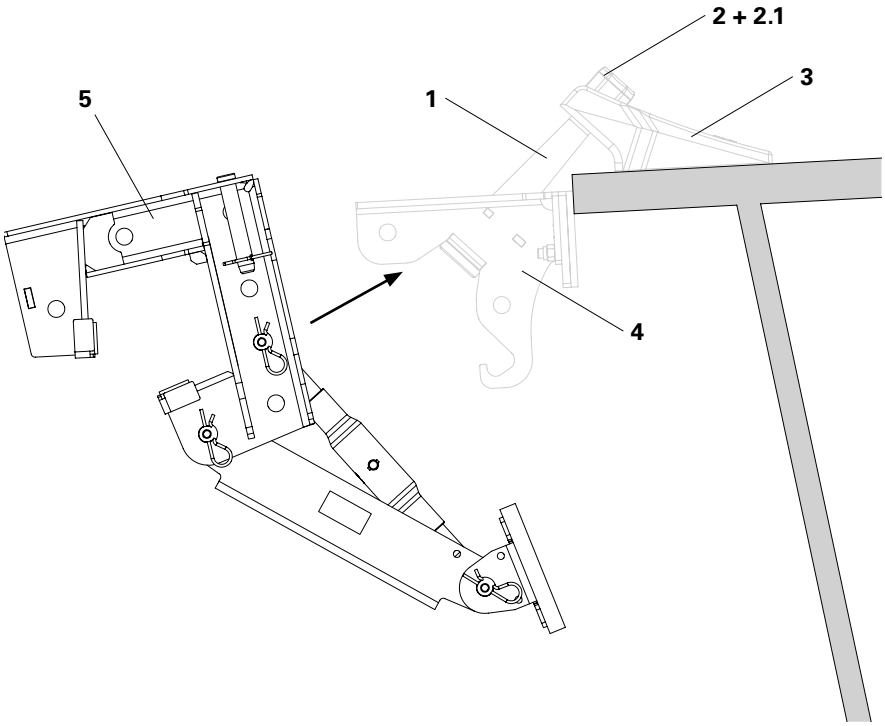


Fig. A3.07

To simplify the description, the holes in the suspension head (**5**) are numbered from 1 to 7.
(Fig. A3.08)

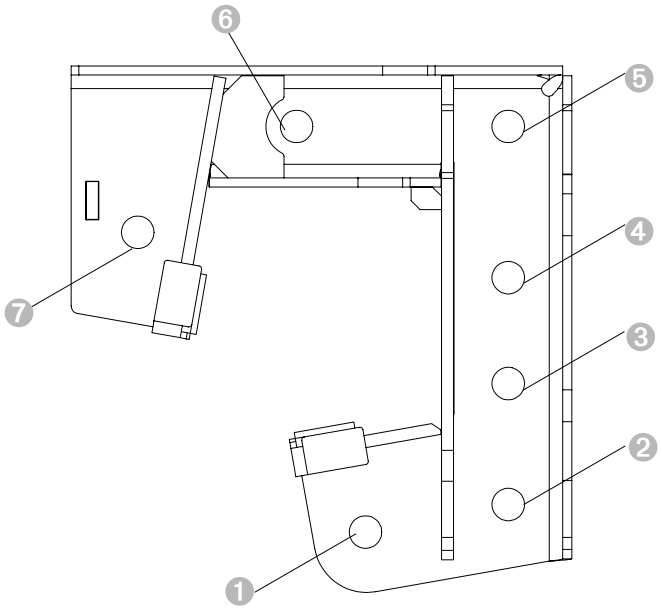


Fig. A3.08

A3 Anchoring with anchor bracket

To improve handling, handles for transport (**5.5**) are integrated into the Suspension Head VCT (**5**) together with 2 holes as a parking position for Ø20x98mm bolts (**5.4**).

Position

5.4 Parking position for bolts Ø 20x98mm
5.5 Handle

PERI recommends pre-assembling the Suspension Head VCT (**5**).

Pre-assembly:

1. Screw the wooden panel (**8.1**) with a thickness suitable for the project to the Support Lever Plate VCT (**8**) using 6 x 20 wood screws to protect the steel structure.
   → The steel structure is now protected.
2. Bolt Support Lever Plate VCT (**8**) and articulated spindle (**26**) into Support Lever VCT 400 (**6**) with bolt Ø 20 x 98 (**32**).
   Secure with Cotter Pin 4/1 ga (**29**).
3. Fit Support Lever VCT 400 (**6**) with Suspension Head VCT (**5**) at hole 1 with bolt Ø 20 x 98 (**32**).
   Secure with Cotter Pin 4/1 ga (**29**).
4: Fit articulated spindle (**26**) with Suspension Head VCT (**5**) at hole 3 with bolt Ø 20 x 98 (**32**).
   Secure with Cotter Pin 4/1 ga (**29**).

(Fig. A3.10)

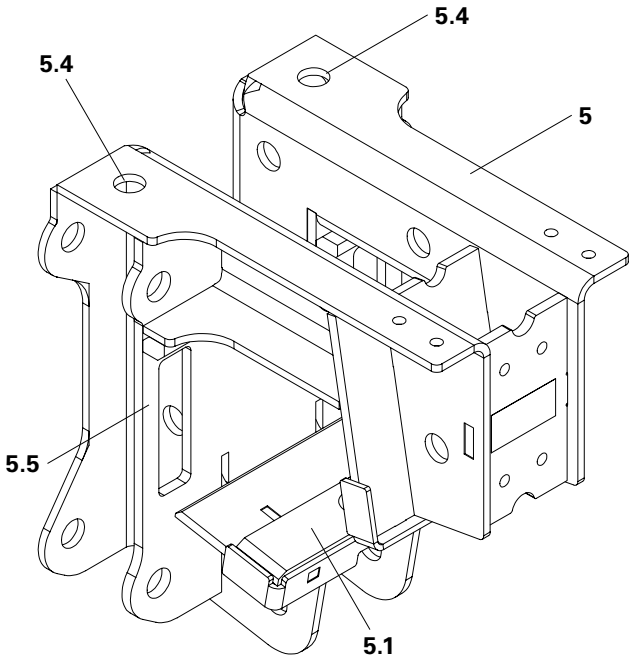


Fig. A3.09

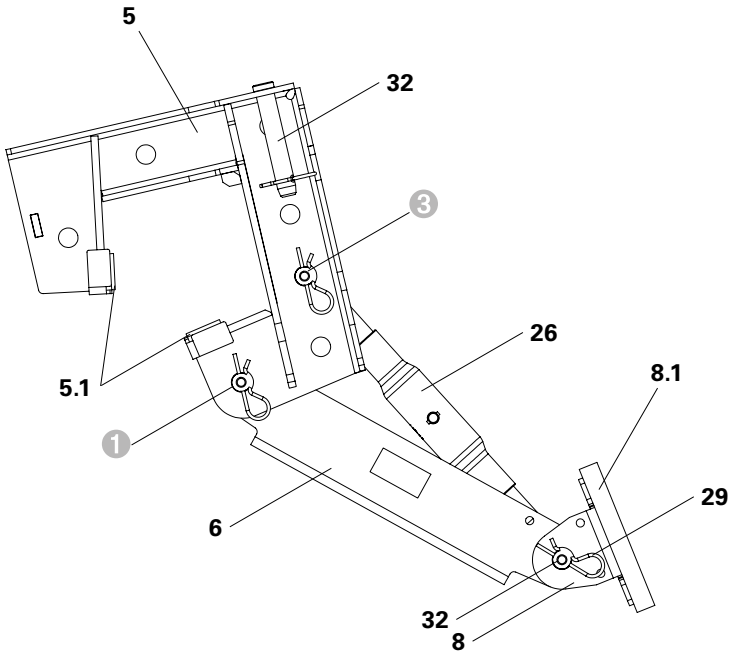


Fig. A3.10

- The Rail Tracks VCT (**9**) and therefore all platforms move along the greased Sliding Plates VCT (**5.1**) during travel.
- The Sliding Plates VCT (**5.1**) (article no.: 141353) are wear parts and must be replaced if necessary, see "Replacing Sliding Plates VCT" on page 30.

A3 Anchoring with anchor bracket

Prerequisite
The Cone Socket VCT (**4**) is fitted, see “Anchoring with anchor bracket” on page 24).

Assembly
1. Lift Suspension Head VCT (**5**) and, with a bolt in hole 3, place it in the hook of the Cone Socket VCT (**4**).
(Fig. A3.11)
2. Remove bolt Ø 20 x 98 (**32**) from the parking position (**5.4**).

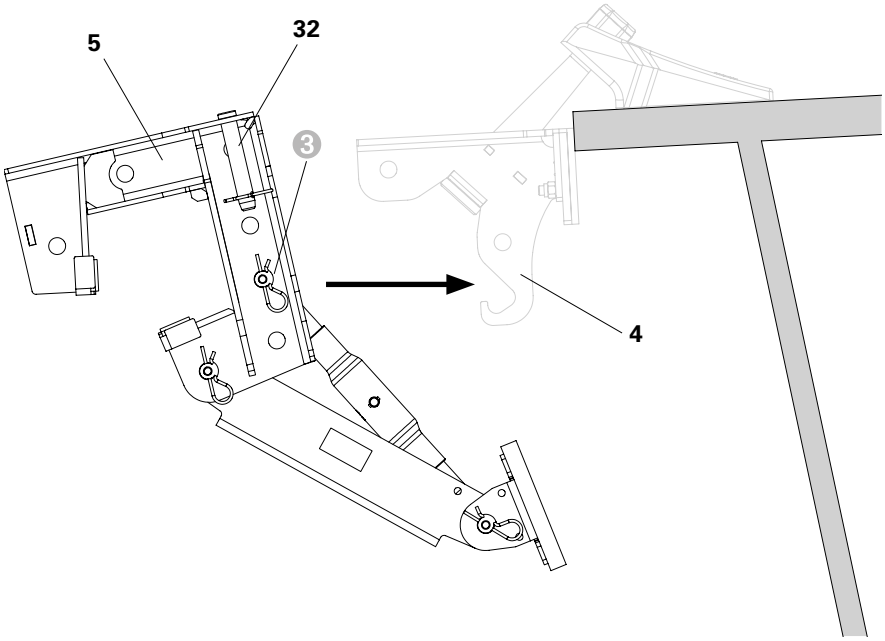


Fig. A3.11

3. Swivel the Suspension Head VCT (**5**) upwards and fit it in hole 6 with bolt Ø 20 x 98 (**32**).
Secure with Cotter Pin 4/1 ga (**29**).
(Fig. A3.12 + Fig. A3.13)

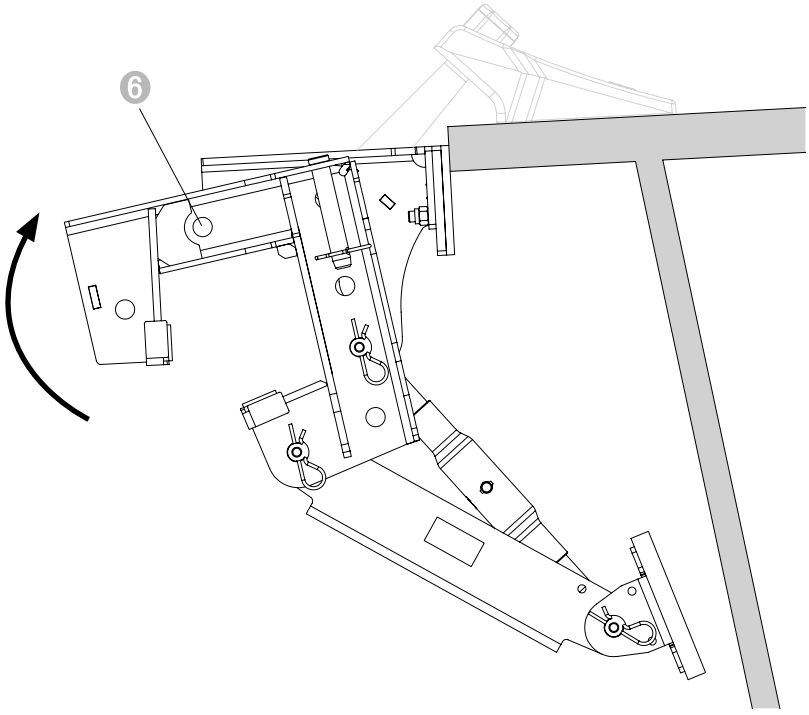


Fig. A3.12

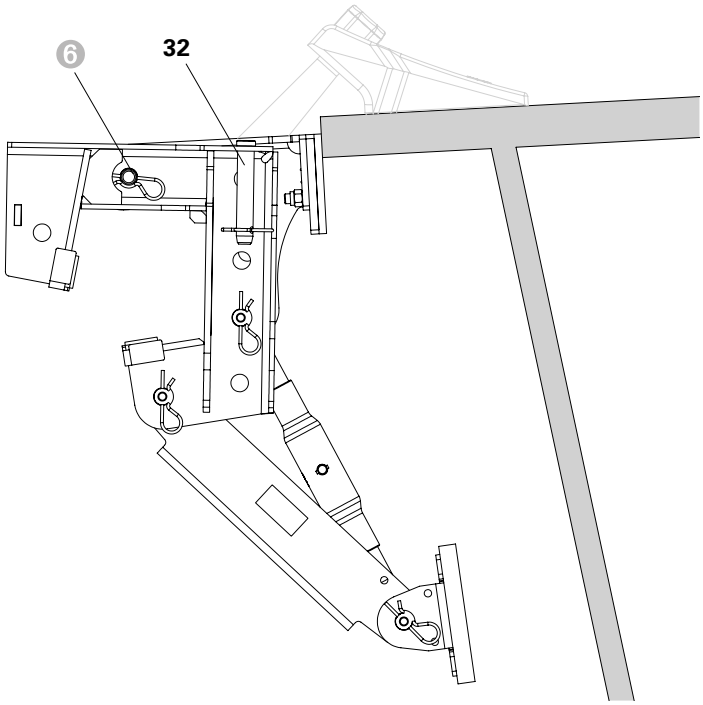


Fig. A3.13

4. Remove the second bolt Ø 20 x 98 (**32**) from the parking position (**5.4**).
5. Swivel the Suspension Head VCT (**5**) downwards and fit it in hole 4 with bolt Ø 20 x 98 (**32**).
   Secure with Cotter Pin 4/1 ga (**29**).

(Fig. A3.14)

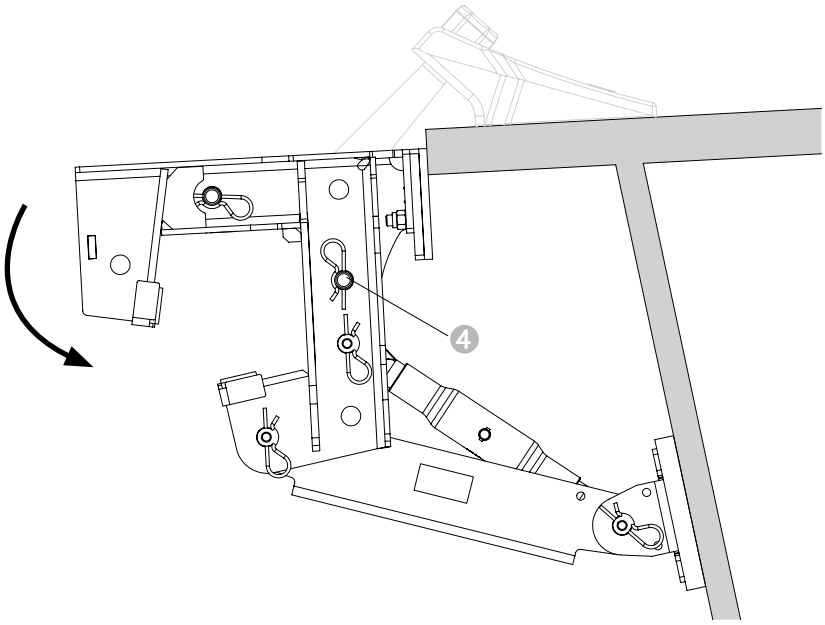


Fig. A3.14

6. Unscrew the articulated spindle (**26**) until the support lever plate is in contact with the wooden panel on the steel structure (see arrow).
7. Align the Suspension Head VCT (**5**) vertically.

(Fig. A3.15)

→ The Suspension Head VCT (**5**) is fitted.

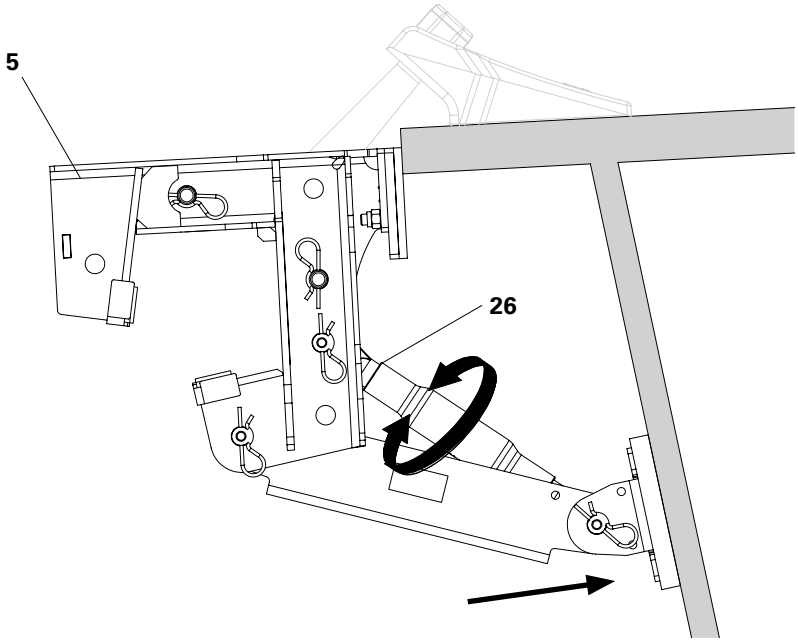


Fig. A3.15

Replacing Sliding Plates VCT

The wear limit of the sliding plates (**5.1**) is reached when the distance between the sliding surface and the screw is approx. 1 mm.

Components

5 Suspension Head VCT
5.1 Sliding Plate VCT
5.2 Bolt ISO 10642 M8 x 30-8.8
5.3 Nut ISO 7040 M8-8

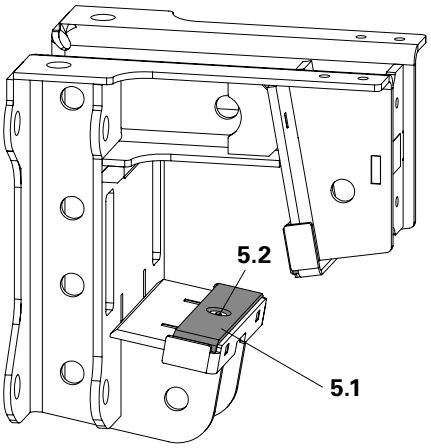


Fig. A3.16

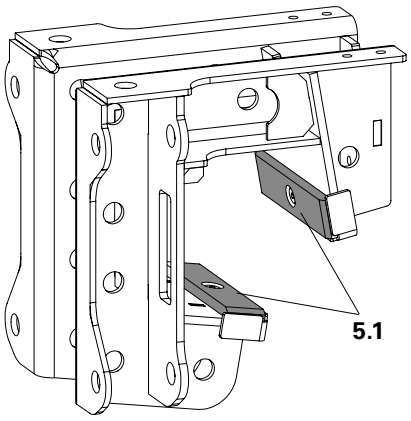


Fig. A3.16a

Replacing the sliding plate

1. Loosen the hexagon socket screw (**5.2**) in the worn Sliding Plate VCT (**5.1**), holding the nut with a suitable tool.
2. Remove the nut (**5.3**).
3. Remove the screw (**5.2**) and Sliding Plate VCT (**5.1**) from the Suspension Head VCT (**5**).
4. Insert the new Sliding Plate VCT (**5.1**) into the Suspension Head VCT (**5**) with a screw (**5.2**).
5. Hand-tighten the nut (**5.3**).

Preparing head bracing

Head bracing

- Head Bracing VCT is required for the fixing variant involving the welded-on Anchor Bracket VCT M30.
- The Head Bracing VCT is used to absorb and dissipate the resulting forces when moving the platforms.
- Head Bracing VCT (**17/18/19**) is available in 3 lengths: 1.00 m, 1.25 m and 1.50 m.

Components

17 Head Bracing VCT 100
18 Head Bracing VCT 125
19 Head Bracing VCT 150
20 Spindle Head Bracing VCT
20.1 Nut Head Bracing VCT
21 Face Spanner VCT

Assembly

1. Unscrew the Nut Head Bracing VCT (**20.1**) from the Spindle Head Bracing VCT (**20**).
(Fig. A3.17+ Fig. A3.18)
2. Insert Spindle Head Bracing VCT (**20**) into Head Bracing VCT (**17/18/19**).
(Fig. A3.17+ Fig. A3.18)
3. Loosely screw in the unscrewed Nut Head Bracing VCT (**20.1**) so that the cones of the nuts are facing each other.
(Fig. A3.17+ Fig. A3.18)

Only screw on the nuts loosely.
The adjustment is made with the Face Spanner VCT (**21**) only after the head bracing and spindle head bracing have been bolted between the suspension heads.
(Fig. A3.18a)

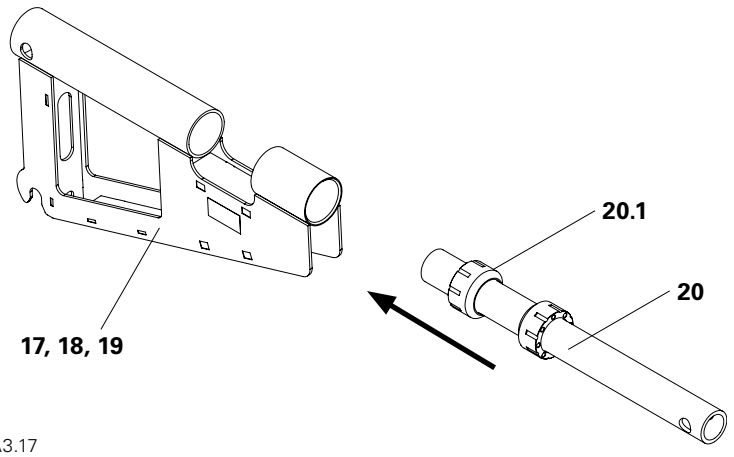


Fig. A3.17

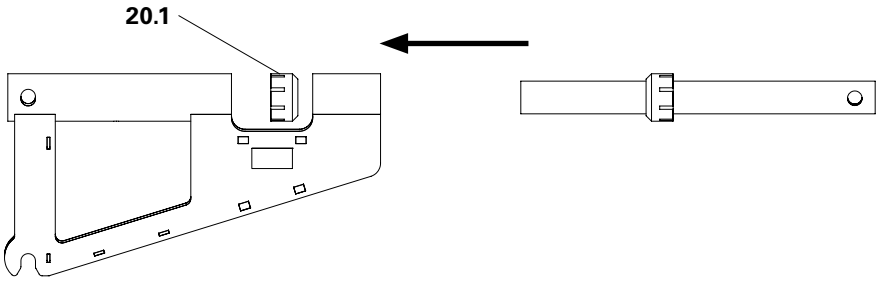


Fig. A3.18

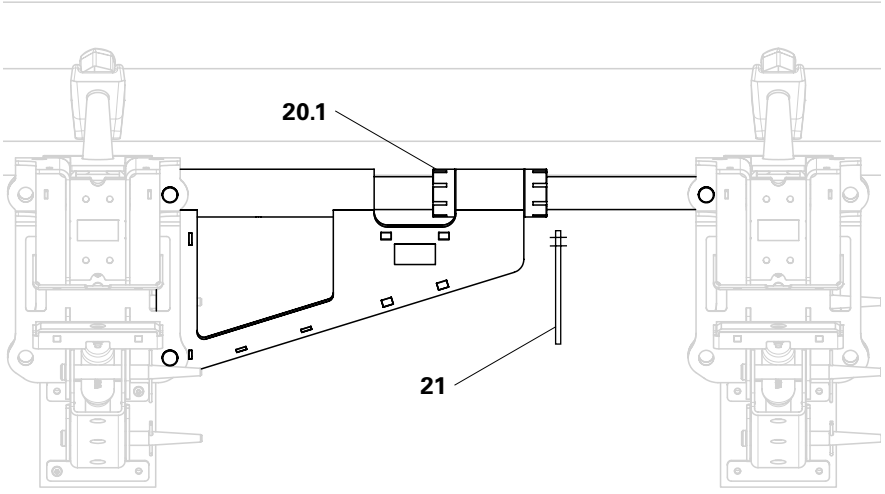


Fig. A3.18a

A4 Closing the tie holes

In case of anchor brackets

Only remove the Cone Bolt VCT M30 (**1**) with Cone Socket VCT (**4**) when the tie point no longer needs to be traversed.
The process of closing the tie holes in the concrete is carried out from a safe working position, e.g.:

- Finishing platform of the Cantilevered Formwork VCT
- Telescopic work platform
- Temporary working scaffold

Components:

1 Cone Bolt VCT M30
2 Nut ISO 4032 M30-8
2.1 Protection cap
3 Anchor Bracket VCT M30
4 Cone Socket VCT
44 Tie hole

Procedure

1. Unscrew Cone Bolt VCT M30 (**1**) and Cone Socket VCT (**4**) with Allen key AF30.
2. Use suitable material or plugs to seal the tie holes (**44**) in the concrete flush on site.

(Fig. A4.01 – Fig. A4.01b)

Observe the safety data sheet of the sealing compound.

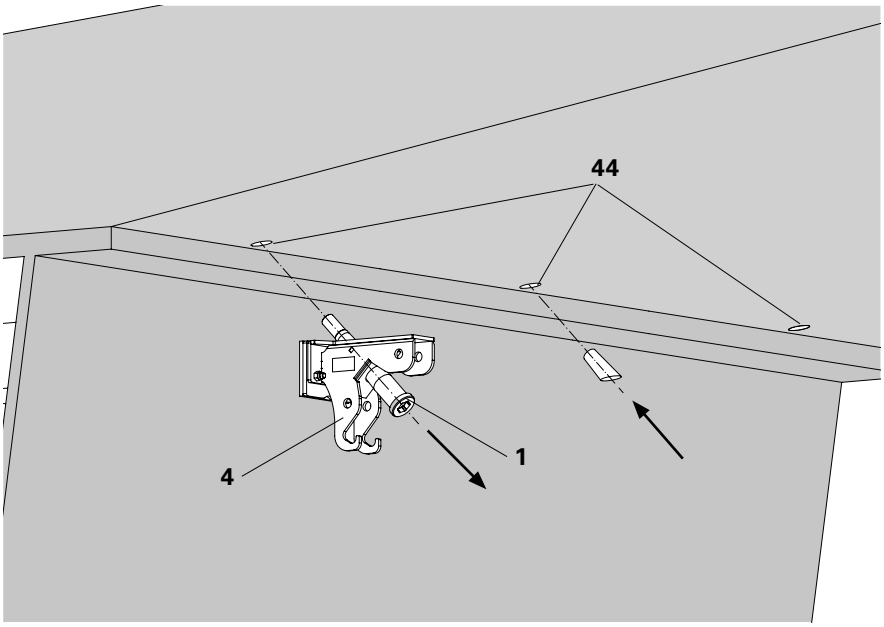


Fig. A4.01

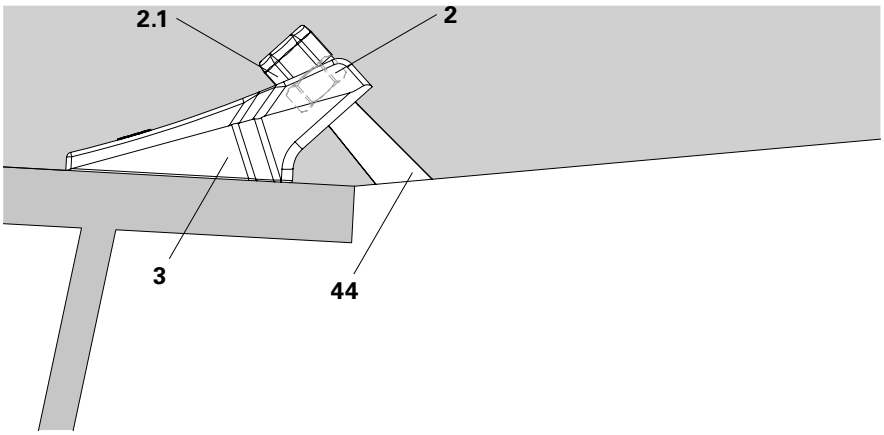


Fig. A4.01a

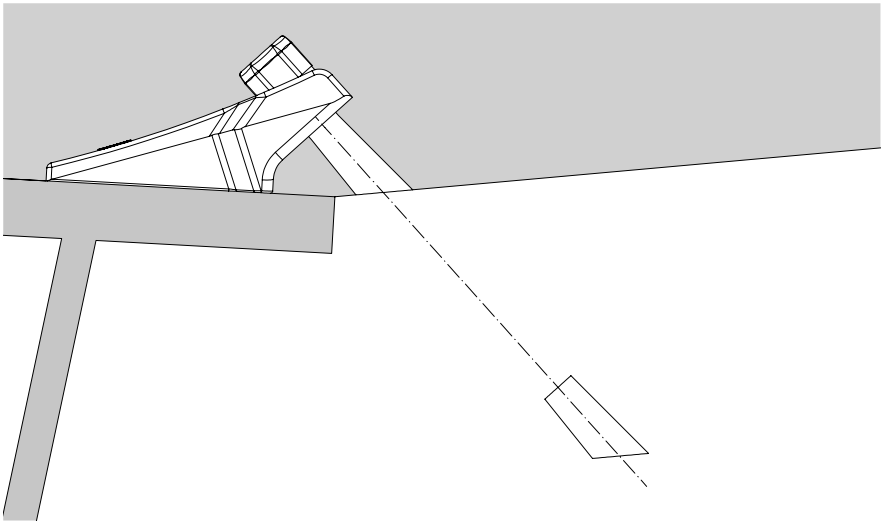


Fig. A4.01b

A5 Assembly Head VCT

Assembly Head VCT

- There are usually 3 assembly heads (**40**) at the start or end of the bridge for installing the VCT Composite Track.
- The assembly head is used to attach and detach the leading and finishing platforms and formwork units for the VCT Composite Track.
- The platforms are always attached and detached using a crane and lifting gear.
- Once the platform/formwork unit has been attached, the assembly head is closed hydraulically.
  → The platform/formwork unit is secured.
- The platform/formwork unit is removed from the assembly head at a location that is accessible from above, or from below the concreted cantilever arm.

Components:

6	Support Lever VCT 400
8	Support Lever Plate VCT
8.1	Wooden panel
26	Articulated spindle Ø 21 35 - 47
29	Cotter Pin 4/1 ga
32	Bolt Ø 20 x 98
33	Flange Adapter VCT
40	Assembly Head VCT
40.10	Cone Socket Assy Head

Pre-assembly

1. Screw the project-specific wooden panel (**8.1**) to the Support Lever Plate VCT (**8**) using 6 x 20 wood screws to protect the steel structure.
   → The steel structure is now protected.

(Fig. A5.02)

Assembly with anchor bracket

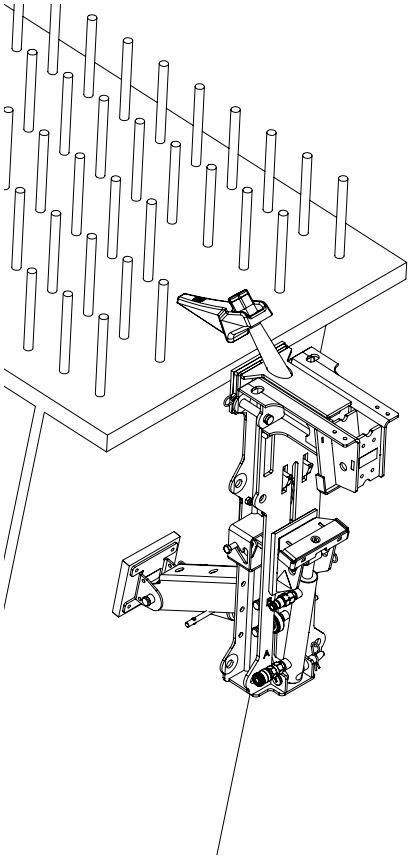


Fig. A5.01

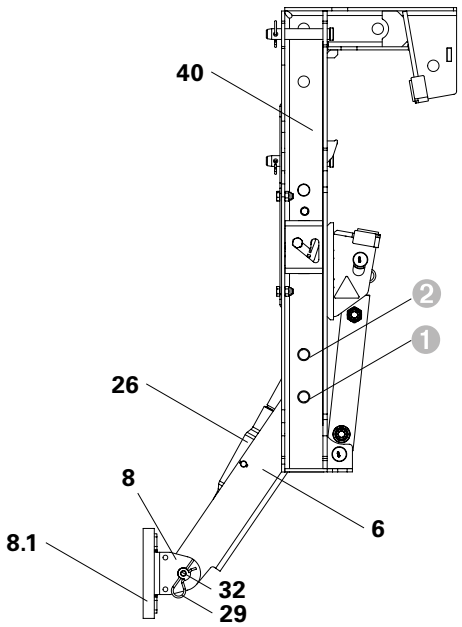


Fig. A5.02

2. Bolt Support Lever Plate VCT (**8**) and articulated spindle (**26**) into Support Lever VCT 400 (**6**) with bolt Ø 20 x 98 (**32**) and secure with cotter pin 4/1 (**29**).
3. Fit Support Lever VCT 400 (**6**) to the assembly head (**40**) at hole 1 (or 2) with bolt Ø 20 x 98 (**32**) and secure with cotter pin 4/1 (**29**).
4: Fit articulated spindle (**26**) with Assembly Head VCT (**40**) at hole 2 (or 1) with bolt Ø 20 x 98 (**32**). Secure with Cotter Pin 4/1 ga (**29**).

(Fig. A5.02)

Depending on the required distance to the steel trough, it may be necessary to swap the bolting for the articulated spindle (**26**) and Support Lever VCT 400 (**6**) from hole 1 to 2 and vice versa.
(Fig. A5.02)

Assembly with anchor bracket

1. Position the assembly head (**40**) with the crane and 2-sling lifting gear.
2. Fit the assembly head (**40**) in holes 4 and 6 on the Cone Socket Assy Head (**40.10**) with 2x bolts Ø 20 x 98 (**32**).
3. Secure with Cotter Pin 4/1 ga (**29**).

(Fig. A5.03 + Fig. A5.03a)

Assembly with anchor bracket

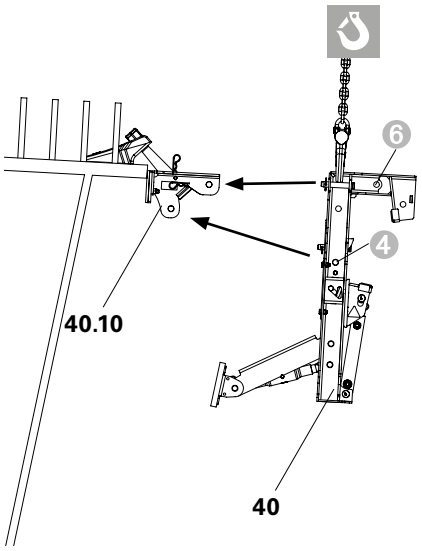


Fig. A5.03

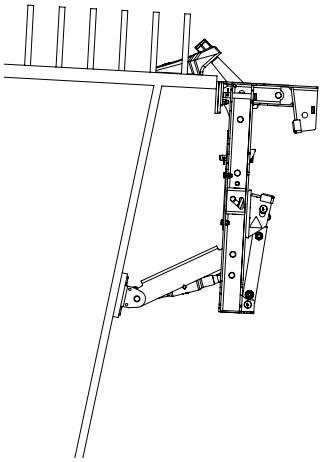


Fig. A5.03a

Adjusting Unit VCT

Adjustment options, overview

- The adjusting unit (**12**) is located underneath the cantilevered formwork (concreting formwork) and enables a height adjustment of max. 26 cm.
- The height adjustment is enabled by a movable carriage (**12.1**) in the adjusting unit (**12**), an articulated spindle (**26**) and hole offset for bolting.

(Fig. A6.01)

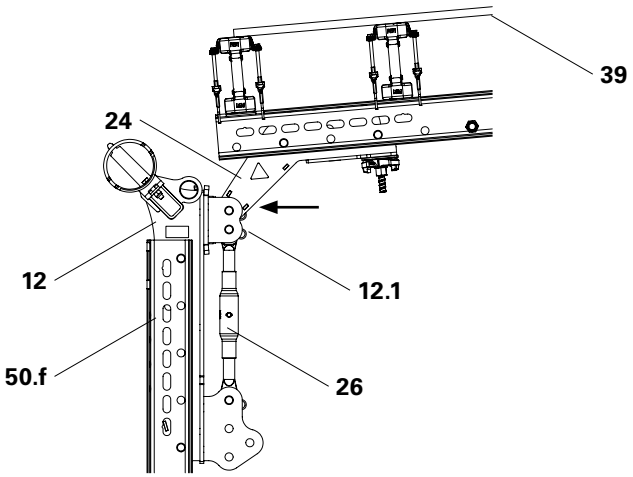


Fig. A6.01

Components:

12	Adjusting Unit VCT
12.1	Height compensation
24	Striking Lever VCT
28	Fitting Pin Ø21x120 mm
29	Cotter Pin 4/1 ga
26	Articulated spindle Ø 21 35 - 47
31	Parallel Connector VARIOKIT
39	Cantilevered formwork (assembly)
50.f	Steel Waler SRU 222 U120

Connection options

- Another articulated spindle (**26**) can be mounted in hole 4 (Ø 21 mm), e.g. for connecting a Parallel Connector VARIOKIT (**31**).

(Fig. A6.02 + Fig. A6.02b)

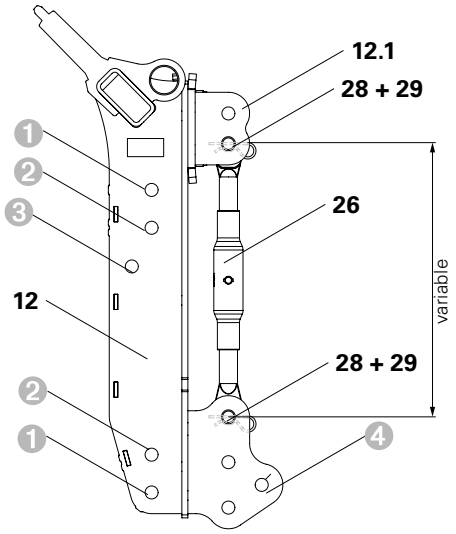


Fig. A6.02

- The upper hole of the height compensation (**12.1**) is intended exclusively for the striking lever (**24**).
- Unscrew the articulated spindle (**26**) as far as the red mark!

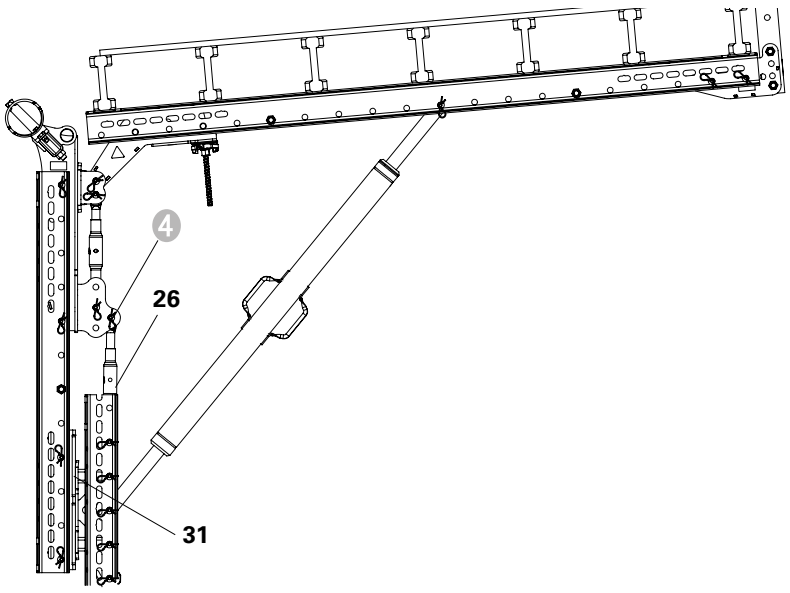


Fig. A6.02a

Connection options

Hole combinations relate to the holes in the Adjusting Unit VCT (**12**). Combinations involving the Steel Waler SRU can be used to adjust the height and inclination.

- Hole combination 1 – 1:
  - Steel Waler SRU standard connection

(Fig. A6.02c)

- Hole combination 2 – 2:
  - The steel waler is approx. 6.3 cm deeper than hole combination 1 – 1, equivalent to dimension (a).

(Fig. A6.02d)

- Hole combination 1 – 3:
  - Inclination of the vertical Steel Waler SRU by 5°
  - Used, for example, in the case of varying widths of top and bottom flange

(Fig. A6.02e)

Adjustment range for the Adjusting Unit VCT

- The movable carriage (**12.1**) of the Adjusting Unit VCT (**12**) can be adjusted by dimension (b), a maximum of 26 cm.

(Fig. A6.02e)

Hole combination 1 – 1

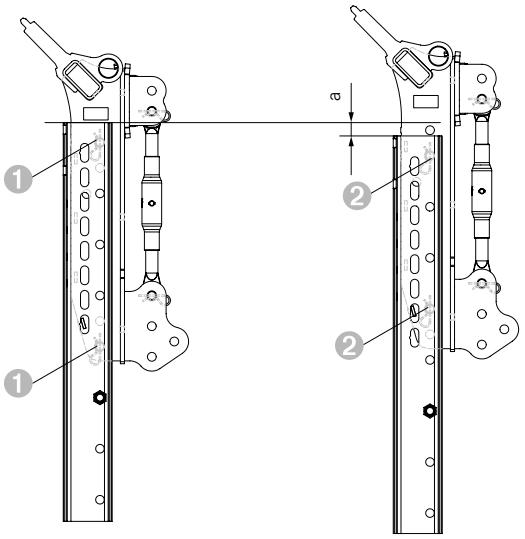


Fig. A6.02b

Hole combination 2 – 2

Fig. A6.02c

Hole combination 1 – 3

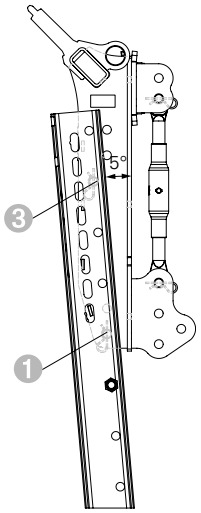


Fig. A6.02d

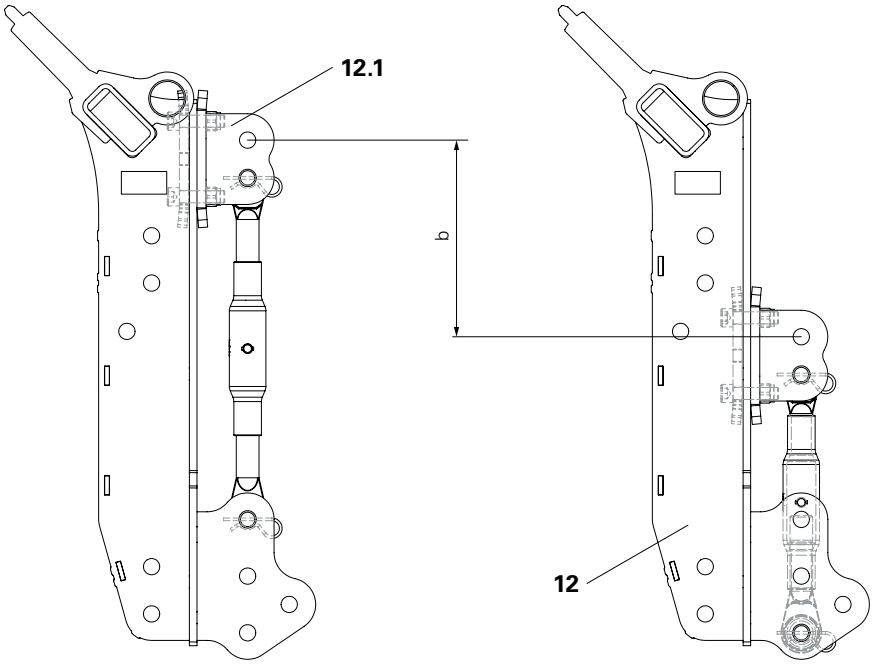


Fig. A6.02e

Parallel Connector VARIOKIT

Warning

Risk of falling when the articulated spindle (**26**) is unscrewed completely. The work platform (**38**) may swing downwards. This can lead to serious, irreversible injuries.

⇒ Unscrew the articulated spindle (**26**) as far as the red mark!

Adjustment options, overview

- The Parallel Connector VARIOKIT (**31**) is used to connect two parallel Steel Walers SRU.
- The Parallel Connector VARIOKIT (**31**) can be shifted continuously by a maximum of s = 12.5 cm.
- The connection between the Steel Waler SRU (**50**) and the Parallel Connector VARIOKIT (**31**) is bolted with Fitting Pins Ø 21 x 120 (**28**). Secure with Cotter Pin 4/1 ga (**29**).

(Fig. A6.03 – Fig. A6.03a)

Components:

26	Articulated spindle Ø 21 35 - 47
28	Fitting Pin Ø21x120 mm
29	Cotter Pin 4/1 ga
31	Parallel Connector VARIOKIT
35	Heavy Duty Spindle SLS 100-180
38	Working platform (assembly)
39	Cantilevered formwork (assembly)
50	Steel Waler SRU

Hole spacings are rounded up to one decimal place (e.g. 6.25 mm is given as 6.3 mm).

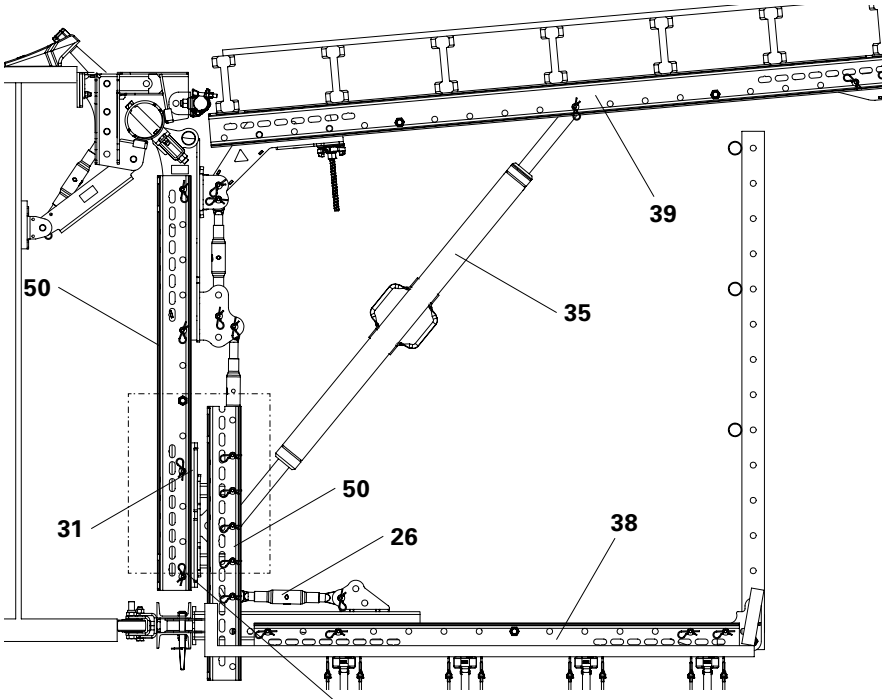


Fig. A6.03

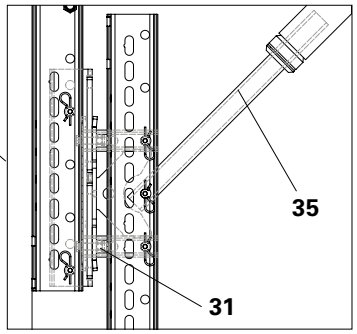


Fig. A6.03a

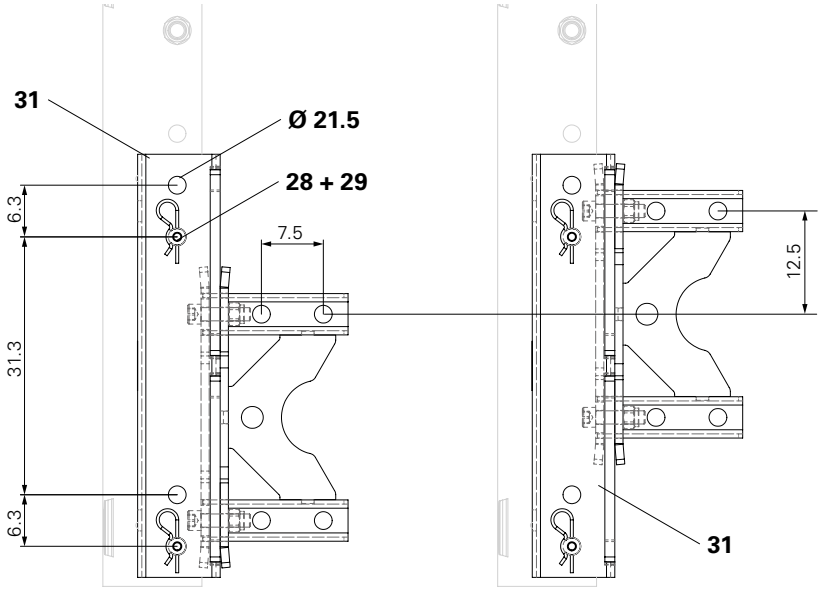


Fig. A6.04

- Different distances to the Steel Walers SRU can be set by using locating pins (see arrow).
- Always secure filler pins with cotter pins.

Connection options

- Connection option 1:
  Max. distance: s = 23.7 cm
  Steel Waler SRU – Steel Waler SRU
(Fig. A6.04a)

- Connection option 2:
  Medium distance: s = 16.2 cm
  Steel Waler SRU – Steel Waler SRU
(Fig. A6.04b)

- Connection option 3:
  Min. distance: s = 17.7 cm
  Steel Waler SRU – Steel Waler SRU
(Fig. A6.04c)

SLS = Recess for Heavy-Duty Spindle SLS

Connection option 1

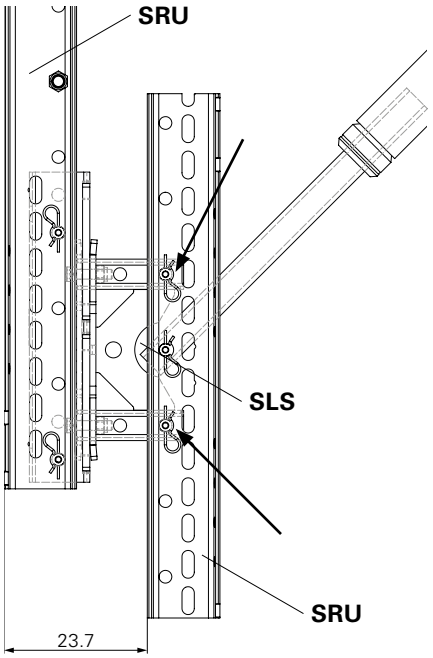


Fig. A6.04a

Connection option 2

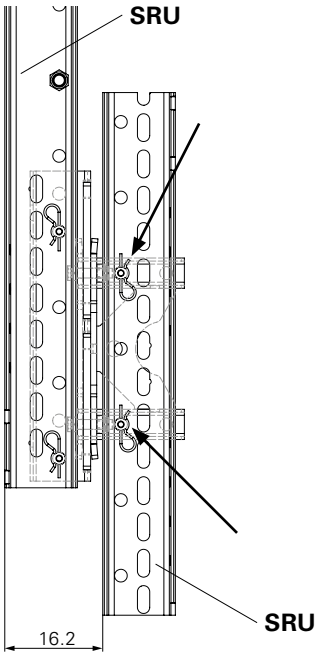


Fig. A6.04b

Connection option 3

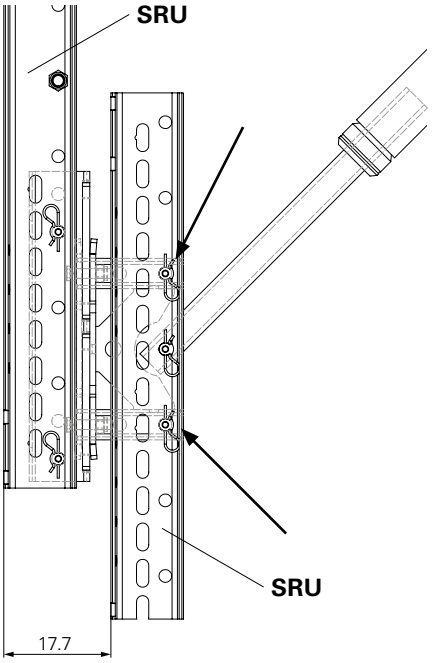


Fig. A6.04c

Deshuttering with Striking Lever VCT

Components:

24 Striking Lever VCT
24.1 Wingnut Counterplate DW 15
25 Wrench Adapter VCT
26 Articulated spindle Ø 21 35 - 47
105 Round steel

Features

- The Striking Lever VCT (**24**) is used for shuttering and striking the formwork.
- Loosening the Wingnut Counterplate DW 15 (**24.1**) lowers the Striking Lever VCT (**24**).
  → The formwork is struck entirely in this area.
- The Wingnut Counterplate DW 15 (**24.1**) is adjusted using the tool (article no. 140748), Wrench Adapter VCT (**25**).
- The recesses of the Wrench Adapter VCT (**25**) engage in the wings of the Wingnut Counterplate DW 15 (**24.1**).
- The Wrench Adapter VCT (**25**) is operated with a round steel bar (**105**), hexagonal ratchet or cordless screwdriver.
- It is not possible to adjust the formwork unintentionally.
- Fine adjustment is carried out with the articulated spindle (**26**) and SLS.

(Fig. A7.01 – Fig. A7.02)

The Wrench Adapter VCT (**25**) is also used to loosen the Cone Bolt VCT M30 (**1**). The external hexagon is used for this.

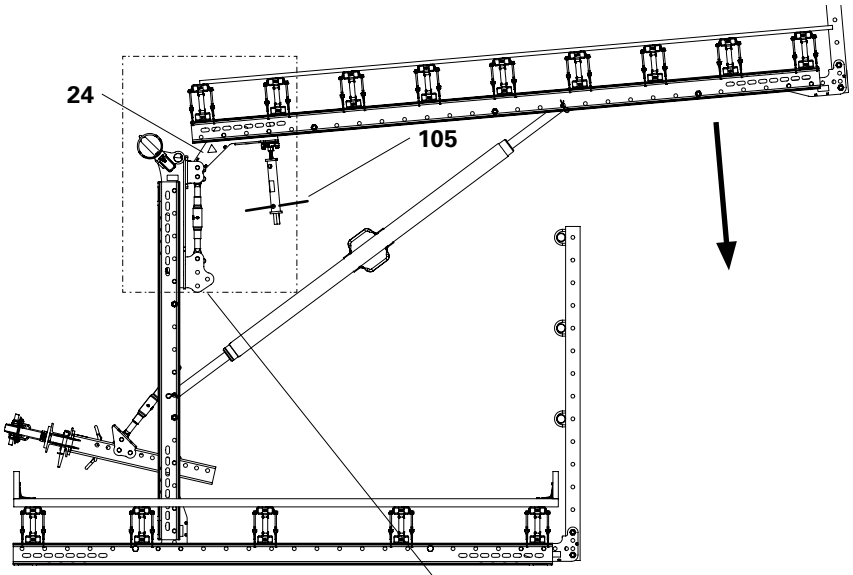


Fig. A7.01

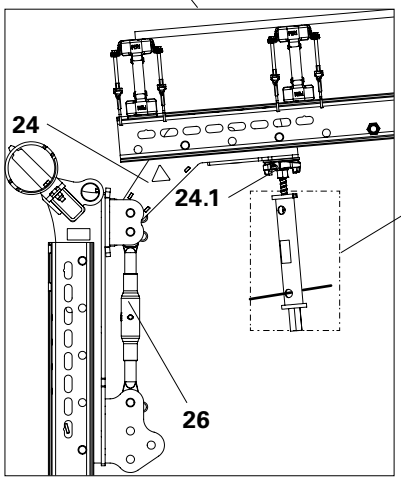


Fig. A7.01a

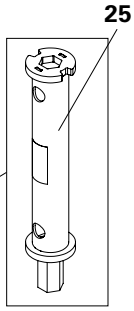


Fig. A7.01b

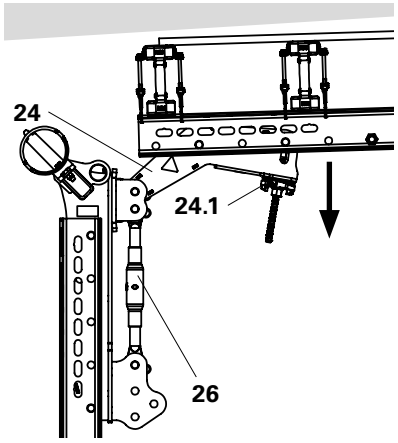


Fig. A7.02

A8 Modifying the Steel Waler SRU

Modifying the Steel Waler SRU

If a built-in part collides with a spacer, the spacer must be moved.

The spacer must be reinstalled in the nearest free position.

Removal and installation
1. Loosen bolt M20 and remove it.
2. Remove the sleeve.
3. Insert the sleeve in the new position.
4. Insert and tighten bolt M20.
(Fig. A8.01)

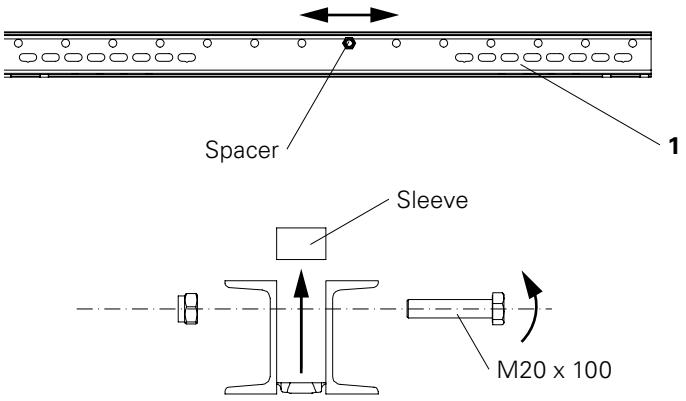


Fig. A8.01

After removing the VARIOKIT Adjusting Unit (**18**), refit the spacer in its original position.

A9 Planking and lateral protection

- Only access the VCT Composite Track once it has been checked and approved by the site management or another competent person.
- Separate static proof is required for the installation of cantilevered planking.

Planking

Dimensioning of the platform planking is carried out according to the country-specific, applicable standards.
(For Germany, DIN 4420-1 can be used.)

Assembly

1. The planking or multi-layer plywood sheets are to be fixed to the beams at each intersection point using nails or screws.

(Fig. A9.01)

PERI recommends using multi-layer plywood sheets for the planking of the working and concreting platforms.
(Fig. A9.01)

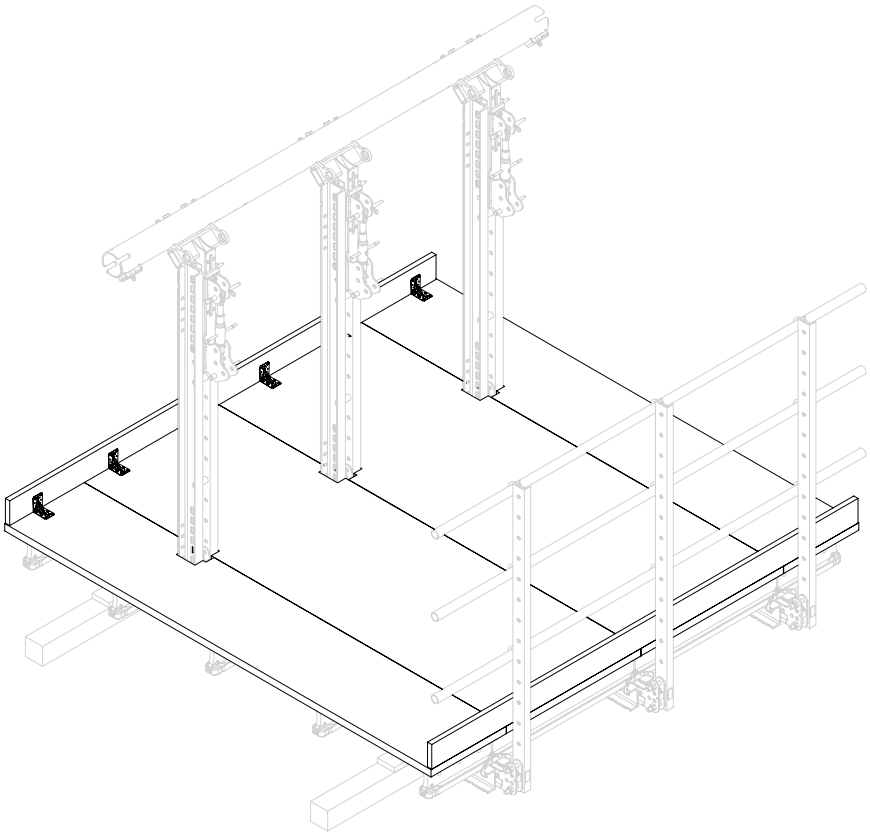


Fig. A9.01

B1 Installing the formwork unit

- For installation, a crane or other lifting device as well as a level assembly surface is required.
- Secure intermediate posts competently with temporary supports to prevent tipping over.

- PERI recommends having a sufficiently large area available for temporary storage purposes.
- Delivery of pre-assembled units is possible on request.

The specified quantity of fitting pins to be installed is based on the two-dimensional supporting structure of the platforms in each case. Each platform unit consists of 2 or 3 console bracket discs. Secure all fitting pins Ø 21 x 120 (**26**) with Cotter Pins 4/1 ga. (**27**).

Element assembly sequence for the formwork unit

A Working platform (38)
B Cantilevered formwork (concreting formwork) (39)

(Fig. B1.01 + Fig. B1.01a)

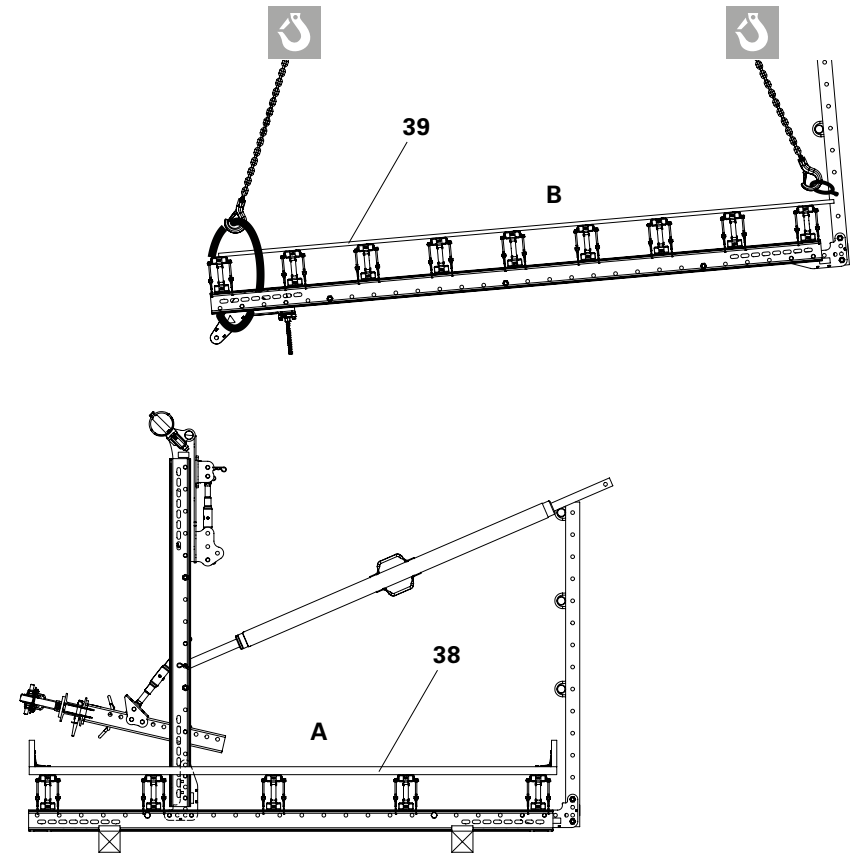


Fig. B1.01

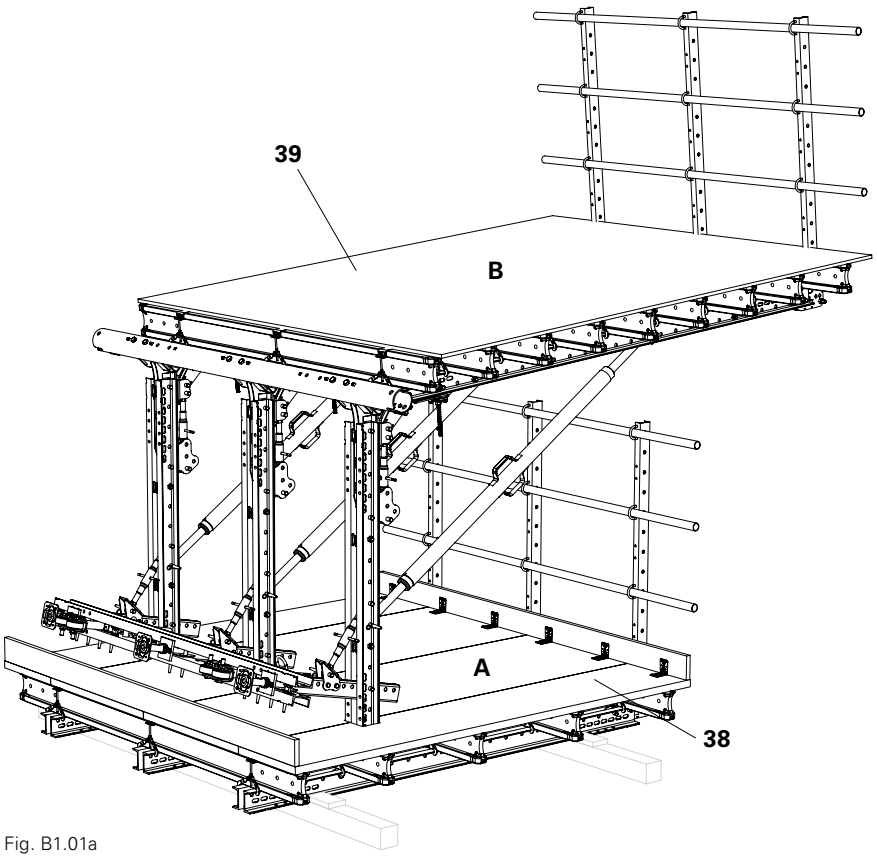


Fig. B1.01a

B2 Pre-assembly of leading and finishing platform/drive unit

Leading platform

The leading platform is used
- as an assembly area for the Suspension Heads VCT (**5**).
- for supporting and operating the hydraulic Drive Rail VTC (**22**) and thus for traversing the VCT Composite Track.
- for attaching the magnetic protective strips to the steel structure.

The leading platform is
- designed on a project-specific basis.
- equipped with an operating platform, Hydraulic Pump RCS MAX (**103**) and ladder tower after installation.
- pre-assembled with lateral protection and front side protection.

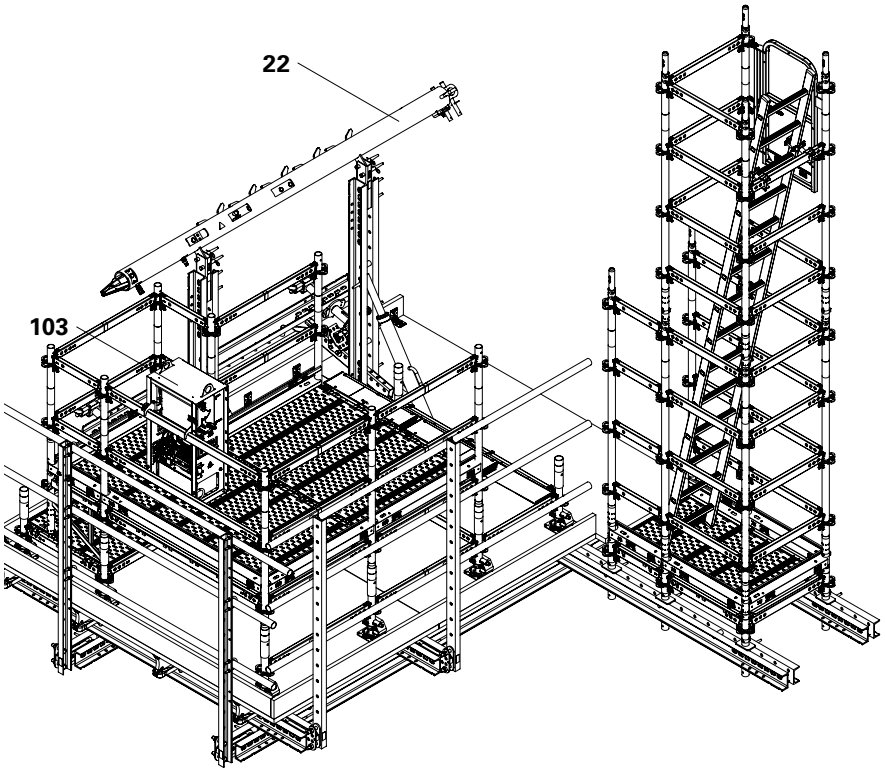


Fig. B1.02

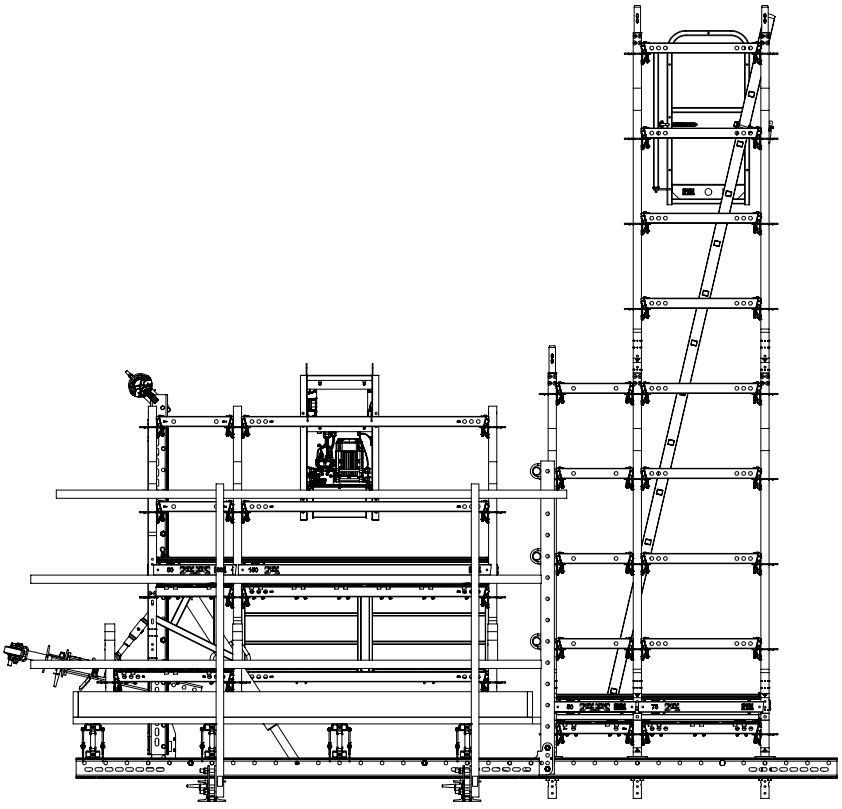


Fig. B2.02a

B2 Pre-assembly of leading and finishing platform/drive unit

Finishing platform

The finishing platform is used

- as a disassembly area for the Suspension Heads VCT (**5**).
- for supporting and operating the hydraulic Drive Rail VTC (**22**) of the VCT Composite Track.
- as an additional starting aid to overcome a significant initial resistance.
- in back-step mode as a drive unit in reverse operation.
- for removing the magnetic protective strips from the steel structure.
- for closing the holes of tie cones.
- for minor repair work on steel structures.

The finishing platform is

- designed on a project-specific basis.
- equipped with an operating platform, Hydraulic Pump RCS MAX (**103**) and ladder tower after installation.
- pre-assembled with lateral protection and front side protection.

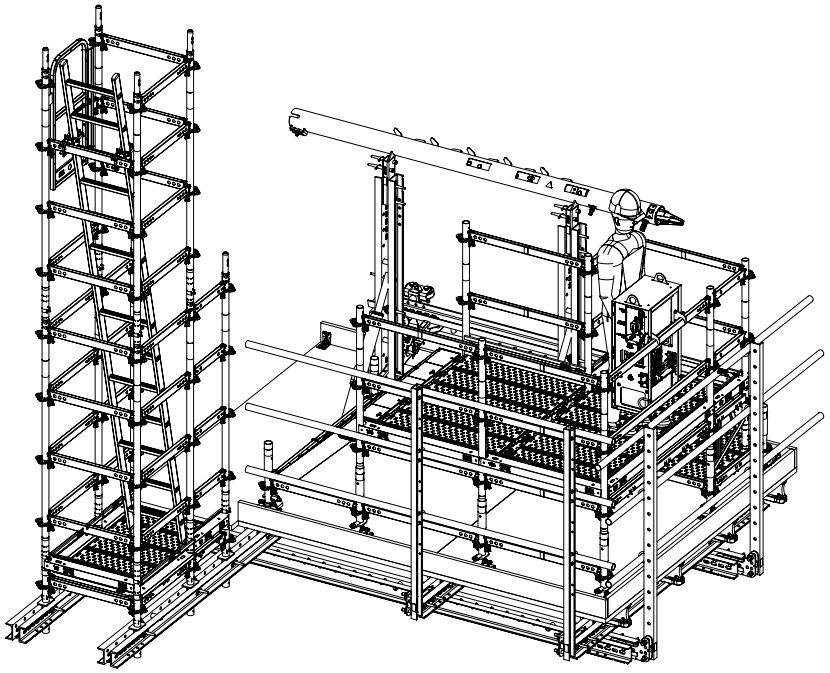


Fig. B2.01

As the finishing platform is essentially a mirrored leading platform, the structure of the leading platform is explained.

B2 Pre-assembly of leading and finishing platform/drive unit

Fitting the drive rail

Caution

The drive rail (**22**) may fall down. Non-observance can lead to minor reversible injuries. Secure the drive rail (**22**) against falling, e.g. with wooden wedges or screw clamps.

- The Drive Rail VCT (**22**) is mounted on the leading and finishing platform and is used to move the entire VCT Composite Track.
- The drive profile unit consists of the following main components
  - Drive Rail VCT (**22**)
  - Adapter Drive Rail VCT (**23**)
  - Rail Track Coupler VCT (**11**)
  - Steel Waler SRU 222 U120 (**50.f**).

Components:

10 Coupler Pin VCT
11 Rail Track Coupler VCT
22 Drive Rail VCT
22.8 Connecting Lug SRU
23 Adapter Drive Rail VCT
28 Fitting Pin Ø21x120 mm
29 Cotter Pin 4/1 ga
50.f Steel Waler SRU 222 U120
50.h Steel Waler SRU 247 U120
50.l Steel Waler SRU 397 U120
60 Substructure

Fitting the Adapter Drive Rail VCT to the Drive Rail VCT

1. Set the Drive Rail VCT (**22**) down at a suitable assembly area.
2. Fit the Rail Track Coupler VCT (**11**) with Coupler Pin VCT (**10**) to Drive Rail VCT (**22**) and secure with Cotter Pin 4/1 ga (**29**).

(Fig. B2.02b)

3. Fit the Adapter Drive Rail VCT (**23**) to holes 1 + 2 on the Connecting Lug VST (**22.8**) with 2x Fitting Pins Ø21x120 mm (**28**) and secure with Cotter Pins 4/1 ga (**29**).

(Fig. B2.02 + Fig. B2.02b)

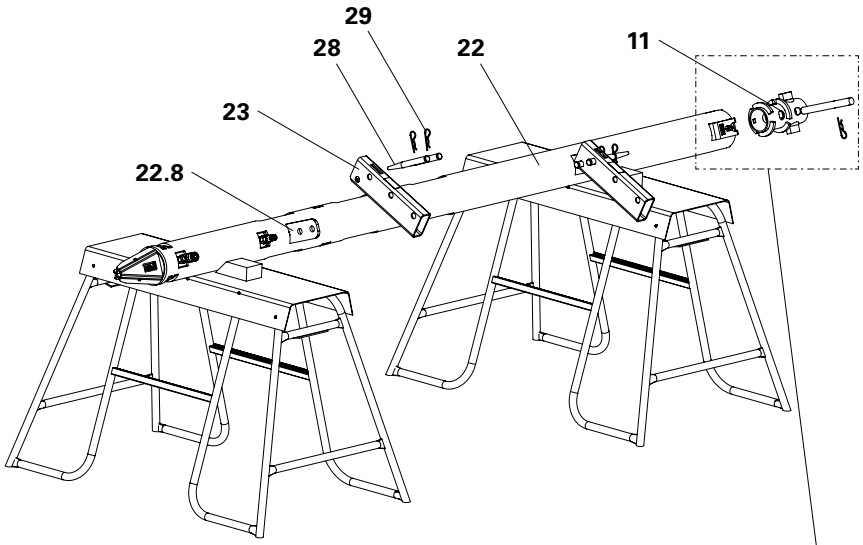


Fig. B2.02

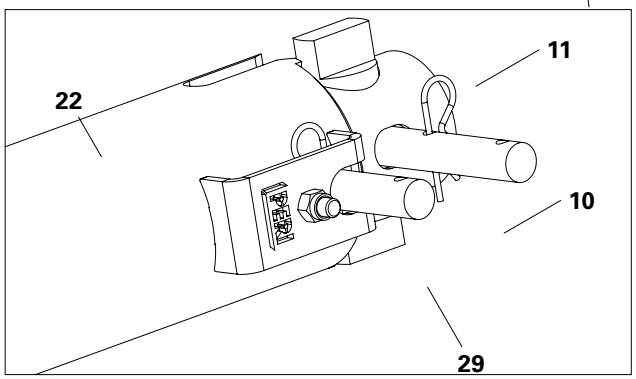


Fig. B2.02a

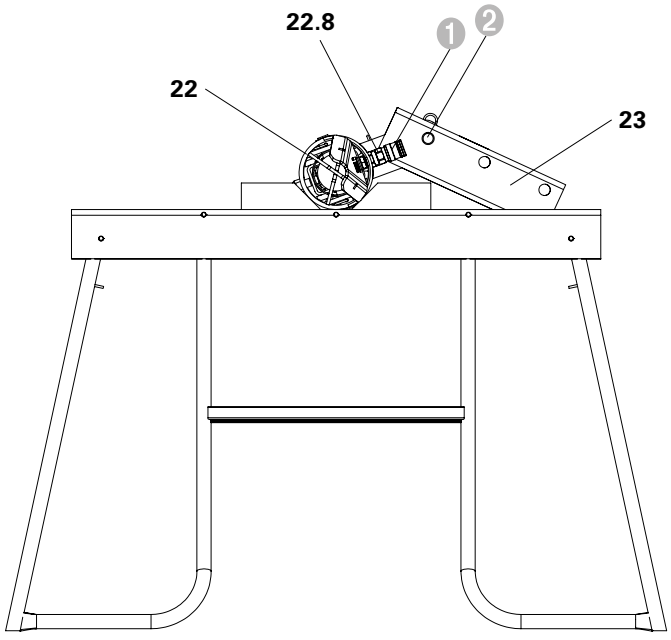


Fig. B2.02b

B2 Pre-assembly of leading and finishing platform/drive unit

Fitting the Adapter Drive Rail VCT to the steel waler vertical profile

Assembly

1. Slide the Steel Waler SRU (**50.f**) onto the Adapter Drive Rail VCT (**23**) (see arrow).
   → The Adapter Drive Rail VCT (**23**) is located in the centre between the beams of the steel waler.
2. Fit the Adapter Drive Rail VCT (**23**) to holes 1 + 2 on the Steel Waler SRU (**50.f**) with 2x Fitting Pins Ø21x120 mm (**28**) and secure with Cotter Pins 4/1 ga (**29**).
3. Repeat steps 1 and 2 for the second Steel Waler SRU.

(Fig. B2.03 + Fig. B2.03a)

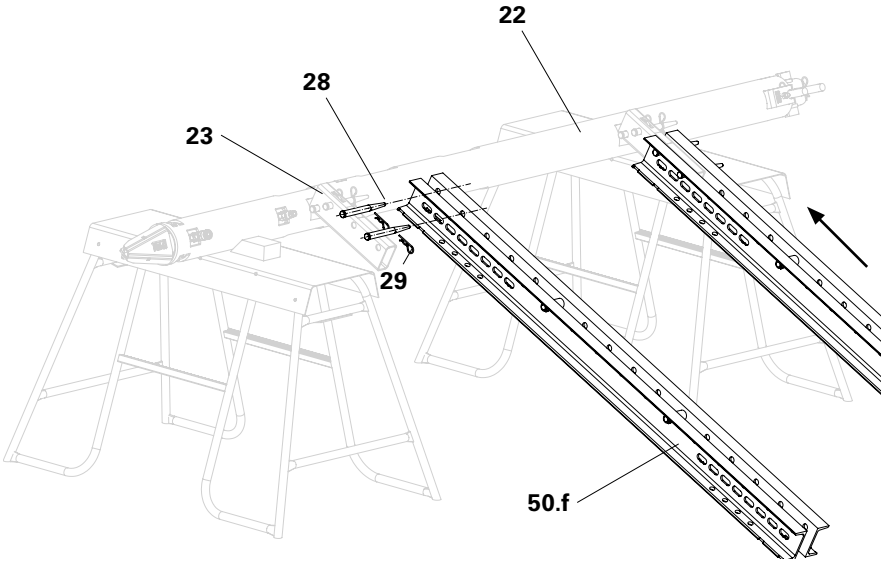


Fig. B2.03

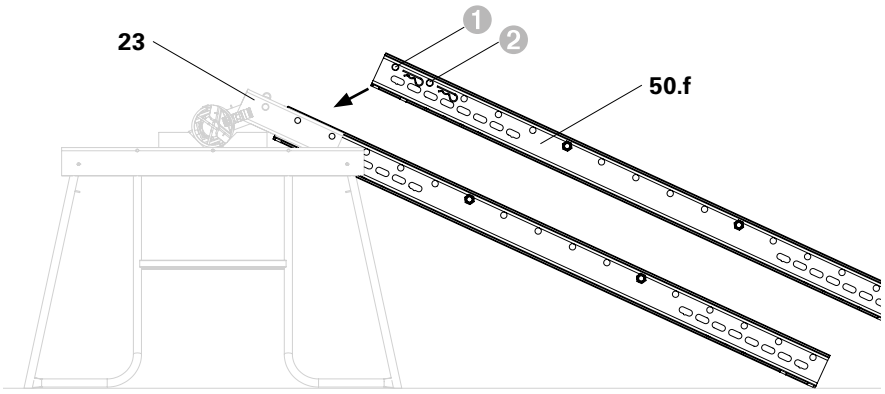


Fig. B2.03a

B2 Pre-assembly of leading and finishing platform/drive unit

Preparing the substructure of the leading platform

We recommend preparing a flat assembly area.

- Stops positioned at right-angles simplify precise and fast pre-assembly of the working platform.
- More information can be provided by PERI on request.

- For assembly, a crane or other lifting device as well as a level assembly surface are required.

Preparing the assembly surface

1. Place sufficiently long squared timbers measuring approx. 12 x 12 cm on the assembly surface based on the needs of the project.
2. Fit stops according to project-specific dimensions (a + b) on squared timbers measuring approx. 12 x 12 cm.

(Fig. B2.04)

Are the squared timbers parallel to each other?

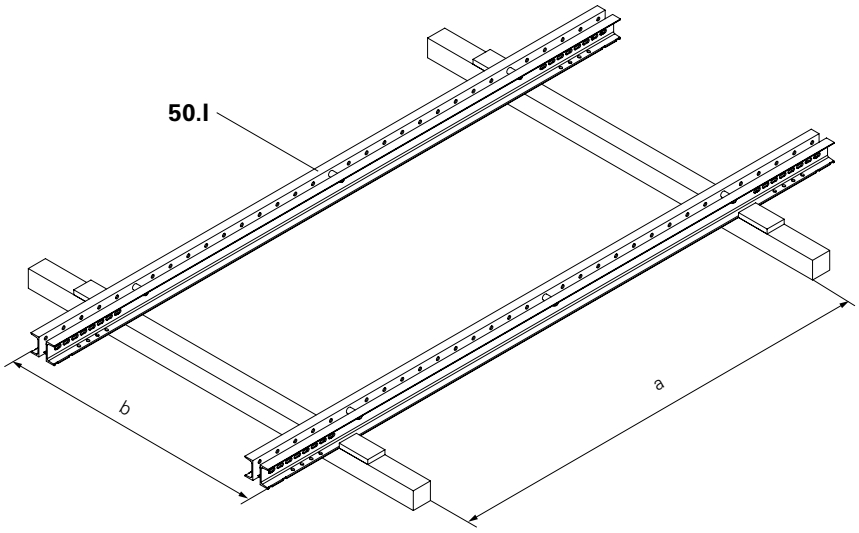


Fig. B2.04

B2 Pre-assembly of leading and finishing platform/drive unit

Installing the substructure of the leading platform

Components

22	Drive Rail VCT
28	Fitting Pin Ø21x120 mm
29	Cotter Pin 4/1 ga
35	Heavy Duty Spindle SLS 100-180
30	Corner Connector SRU VARIOKIT
35	Heavy Duty Spindle SLS 100-180
37	Cross Connector VARIOKIT
50.f	Steel Waler SRU 222 U120
50.i	Steel Waler SRU 272 U120
50.l	Steel Waler SRU 397 U120
50.m	Steel Waler SRU 447 U120
56	Girders VT 20K
57	Hook Strap Uni HBU 20-24
60	Leading and finishing platform substructure (assembly)
70	Toe Board 15 x 3
72	Wood Screw 6x40 SK-TX30 HPI
73	Reinforced angle bracket 90°
74	Wood Screw 6x80 SK-TX30
75	Platform decking

Preparing the Longitudinal Beam SRU

1. Place Steel Waler 397 U120 (**50.l**) against the stops as a longitudinal beam and align.

(Fig. B2.05)

2. Position the Cross Connector VARIOKIT (**37**) at the designated points according to the needs of the project and fit with Fitting Pins Ø21x120 mm (**28**).
   Secure with Cotter Pin 4/1 ga (**29**).

(Fig. B2.05 + Fig. B2.05a)

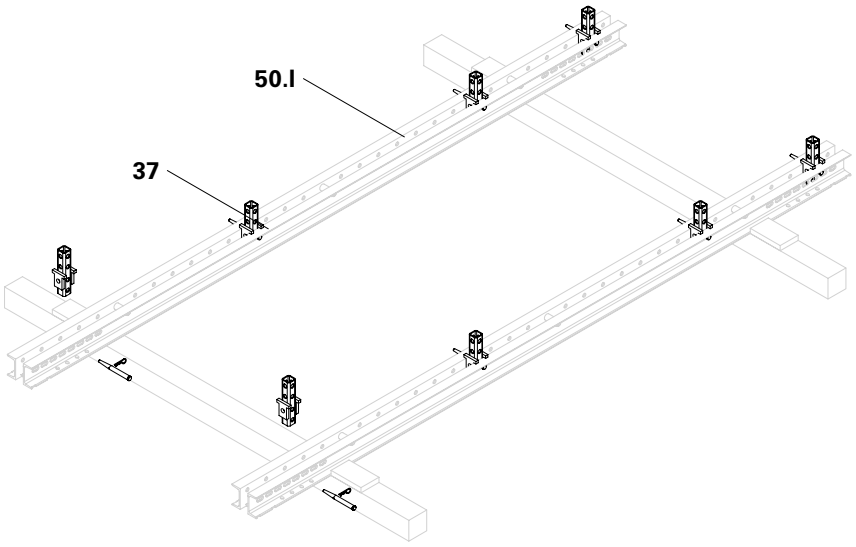


Fig. B2.05

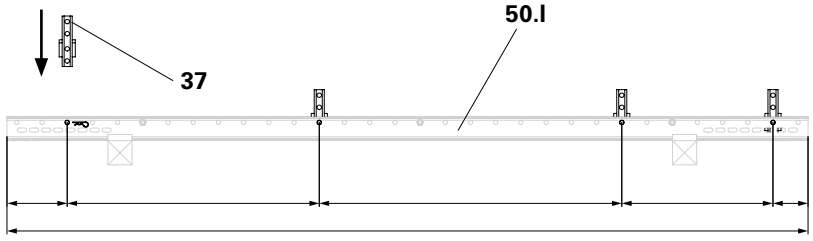


Fig. B2.05a

B2 Pre-assembly of leading and finishing platform/drive unit

Mounting Cross Girder SRU on Longitudinal Beam VBC

1. Place the Steel Walers SRU (**50.i + 50.m**) on the longitudinal beams (**50.l**) as cross girders according to needs of the project and mount them on the cross connector (**37**) with Fitting Pins Ø21x120 mm (**28**). Secure with Cotter Pin 4/1 ga (**29**).

(Fig. B2.06)

Check the frame for dimensional accuracy (diagonal) and perpendicularity.

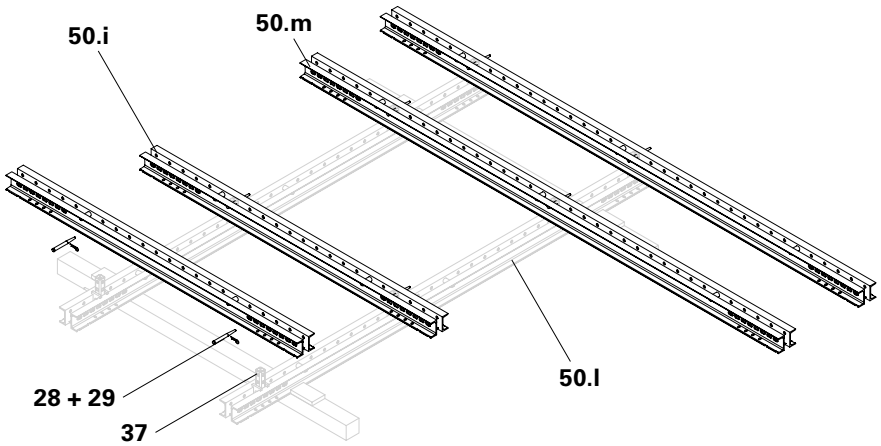


Fig. B2.06

Fitting the Corner Connector SRU VARIOKIT

1. Mount the corner connector (**30**) at the position specified for the project using 2x Fitting Pins Ø21x120 mm (**28**). Secure with 2x cotter pin 4/1 (**29**).

(Fig. B2.07 + Fig. B2.07a)

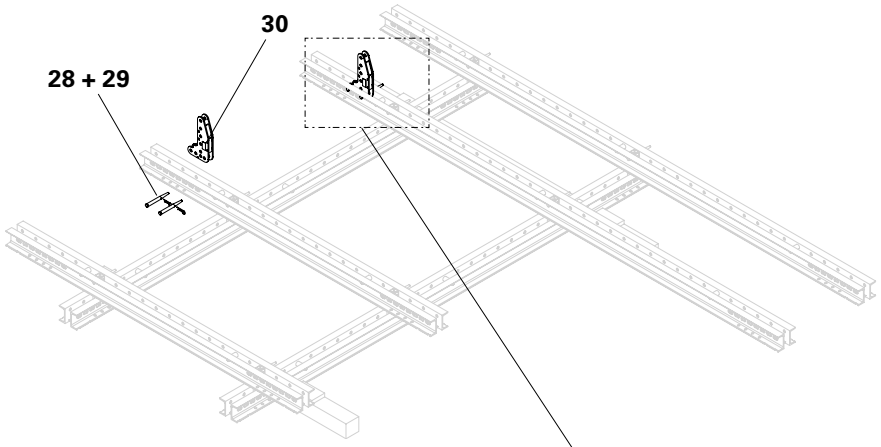


Fig. B2.07

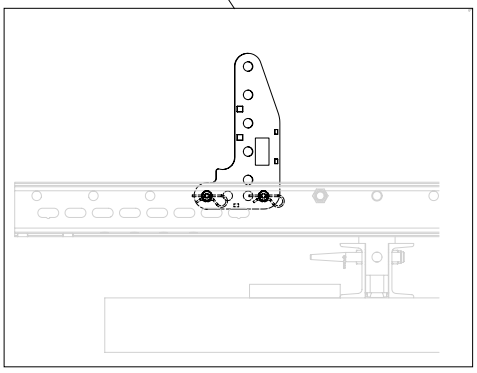


Fig. B2.07a

B2 Pre-assembly of leading and finishing platform/drive unit

Connecting the Drive Rail VCT with substructure

- The drive unit is mounted on the leading and finishing platform.
- Attach the pre-assembled drive rail unit to the crane (see "Fitting the drive rail" on page 45).

Components:

60	Substructure

Assembly

1. Attach the pre-assembled drive rail unit to round slings and 2-sling lifting gear to crane.
2. Use a crane to lift the drive rail unit over the prepared substructure (**60**).
3. Lower the drive rail unit using corner connectors (**30**), fit the holes with 2x Fitting Pins Ø21x120 mm in each case (**28**).
   Secure with 2x Cotter Pins 4/1 ga.

(Fig. B2.08 + Fig. B2.08a)

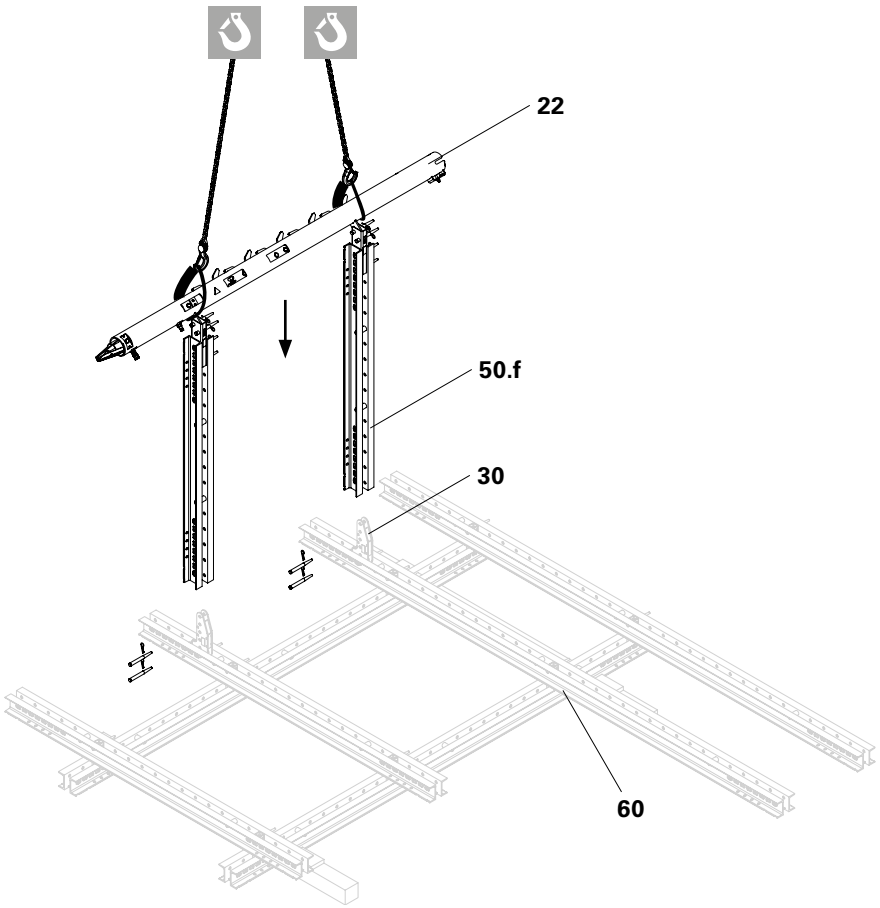


Fig. B2.08

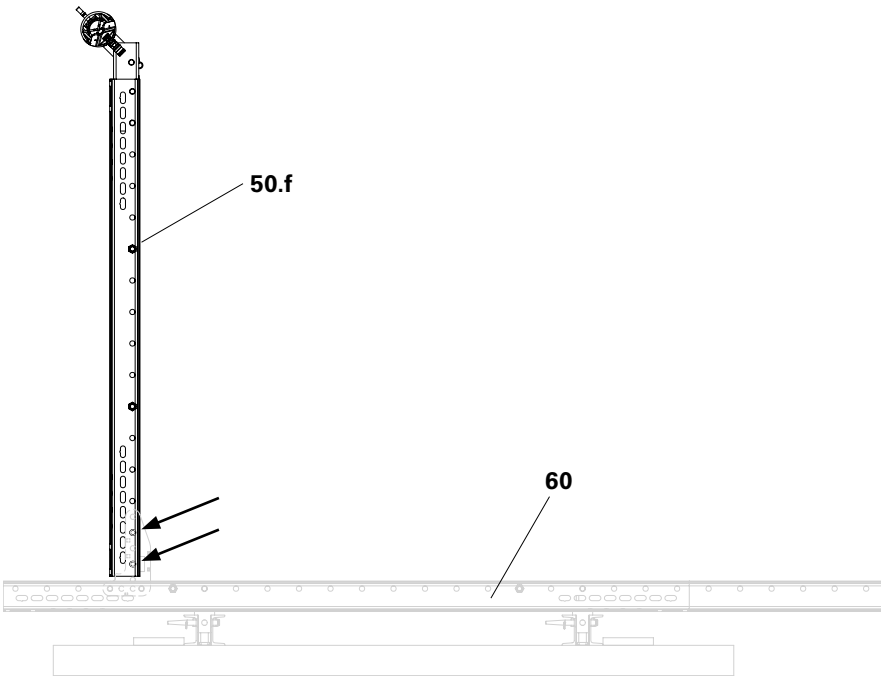


Fig. B2.08a

B2 Pre-assembly of leading and finishing platform/drive unit

Fitting the heavy-duty spindle

Assembly

1. Fit the Heavy Duty Spindle SLS 100-180 (**35**) in the vertical Steel Waler SRU (**50.f**) with Fitting Pin Ø21x120 mm (**28**).
   Secure with Cotter Pin 4/1 ga (**29**).
2. Fit the Heavy Duty Spindle SLS 100-180 (**35**) in the steel waler of the substructure (**60**) with Fitting Pin Ø21x120 mm (**28**).
   Secure with Cotter Pin 4/1 ga (**29**).

(Fig. B2.09 + Fig. B2.09a)

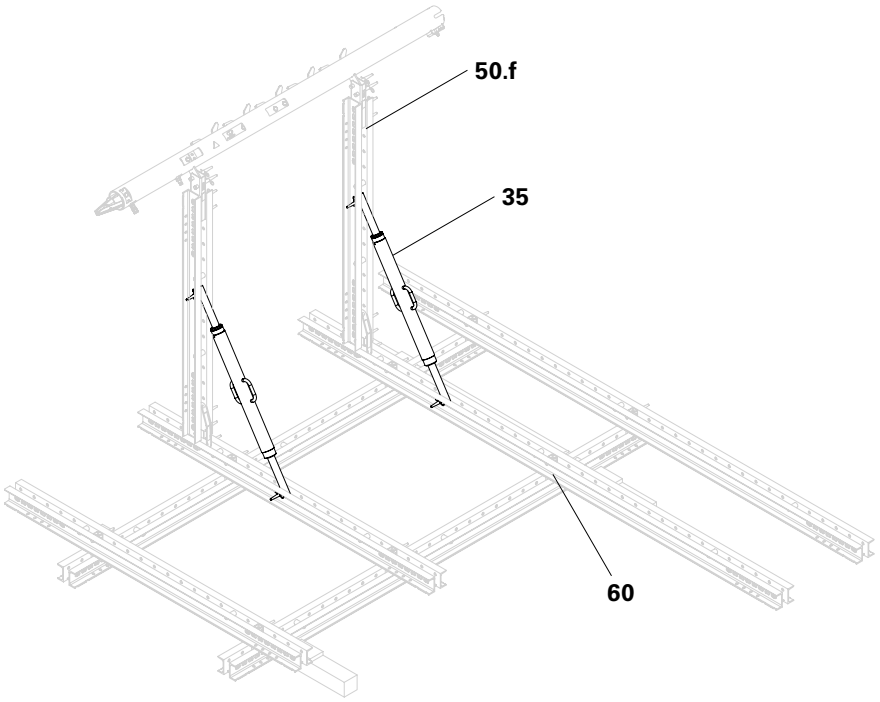


Fig. B2.09

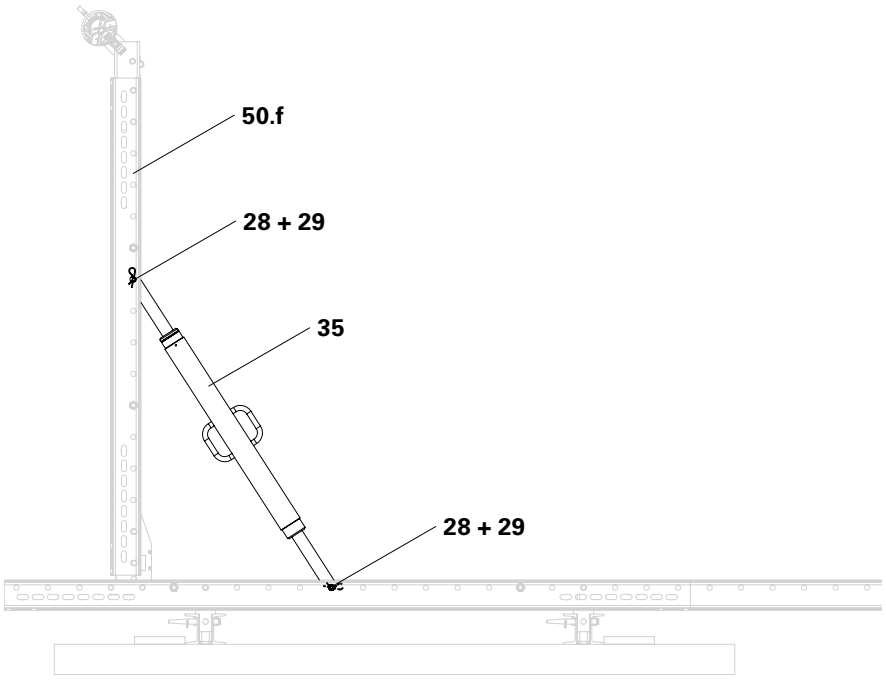


Fig. B2.09a

B2 Pre-assembly of leading and finishing platform/drive unit

Mounting the Girders VT 20

Position the Girders VT 20K (**56**) on the substructure (**60**) according to the needs of the project.
(Fig. B2.10a)

Components

56 Girders VT 20K
57 Hook Strap Uni HBU 20-24
60 Leading and finishing platform substructure (assembly)
70 Toe Board 15 x 3
72 Wood Screw 6x40 SK-TX30 HPI
73 Reinforced angle bracket 90°
74 Wood Screw 6x80 SK-TX30
75 Platform decking

Assembly

1. Mount the Girders VT 20K (**56**) on the Steel Walers SRU of the substructure (**60**) with 4x Hook Straps Uni HBU 20-24 (**57**) according to the needs of the project. Ensure perpendicularity.
2. Mount additional Girders VT 20K (**56**) on the substructure (**60**) using project-specific dimensions (b).

(Fig. B2.10 + Fig. B2.10a)

Check the frame for dimensional accuracy and perpendicularity.

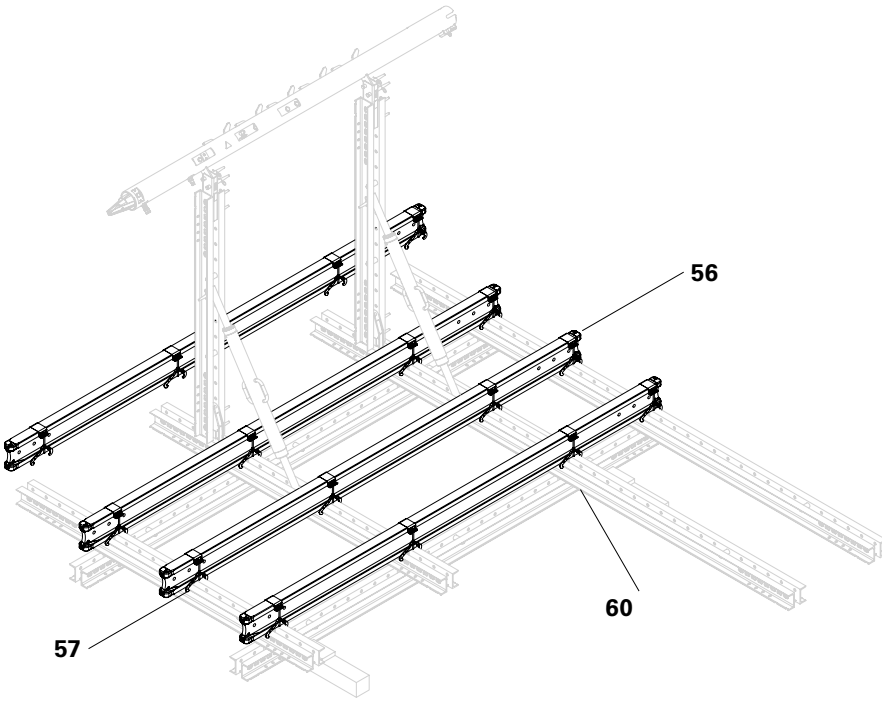


Fig. B2.10

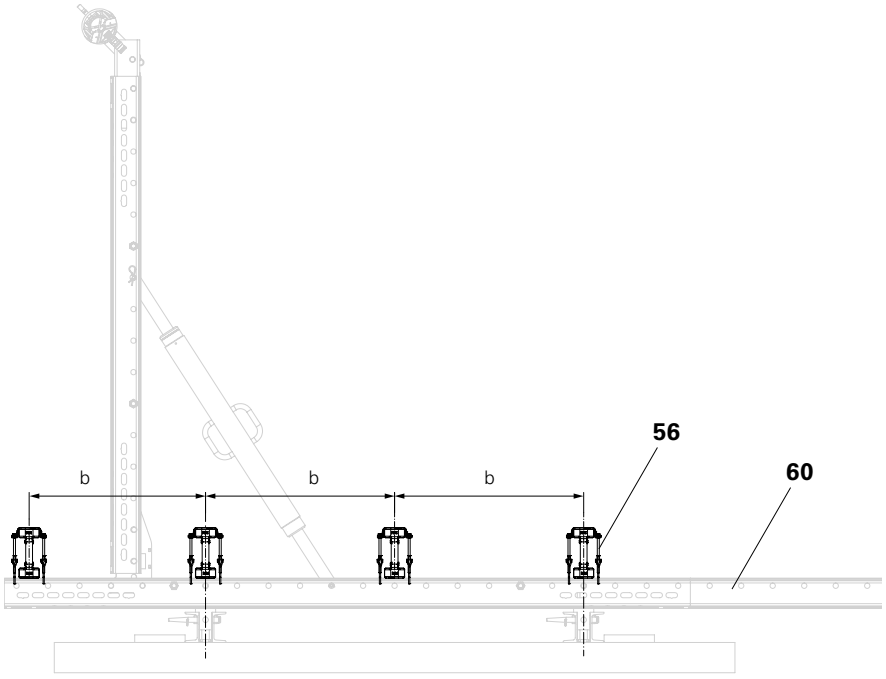


Fig. B2.10a

B2 Pre-assembly of leading and finishing platform/drive unit

Setting up the platform decking for the leading platform

- Only access the VCT Composite Track once it has been checked and approved by the site management or another competent person.
- Separate static proof is required for the installation of cantilevered planking.
- Dimensioning of the platform planking/platform decking is carried out according to the country-specific, applicable standards. (For Germany, DIN 4420-1 can be used.)

- PERI recommends separating the decks of the platform decking at the vertical steel walers. This allows recesses to be implemented more easily.
- PERI recommends using multi-layer plywood sheets for the flooring of the working platforms.

Installing the platform decking

1. Saw the platform decking (**75**) A, B, C to fit the project-specific substructure.

(Fig. B2.11)

2. Recess the platform decking. Cut recesses that are project-specific or based on the specifications.
3. Align platform decking (**75**) A, B, C and screw tightly to Girders VT 20K (**56**) with wood screws 6x80 SK-TX30 (**74**).

(Fig. B2.11)

Fitting the toe board

1. Fasten a 15 x 3 cm toe board (**70**) cut to size on site to the deck (**75**) using reinforced angle brackets 90° (**73**) spaced out at intervals of approx. 50 cm, securing each of them with 8 Wood Screws 6x40 SK-TX30 HPI (**72**).

(Fig. B2.11 + Fig. B2.11a)

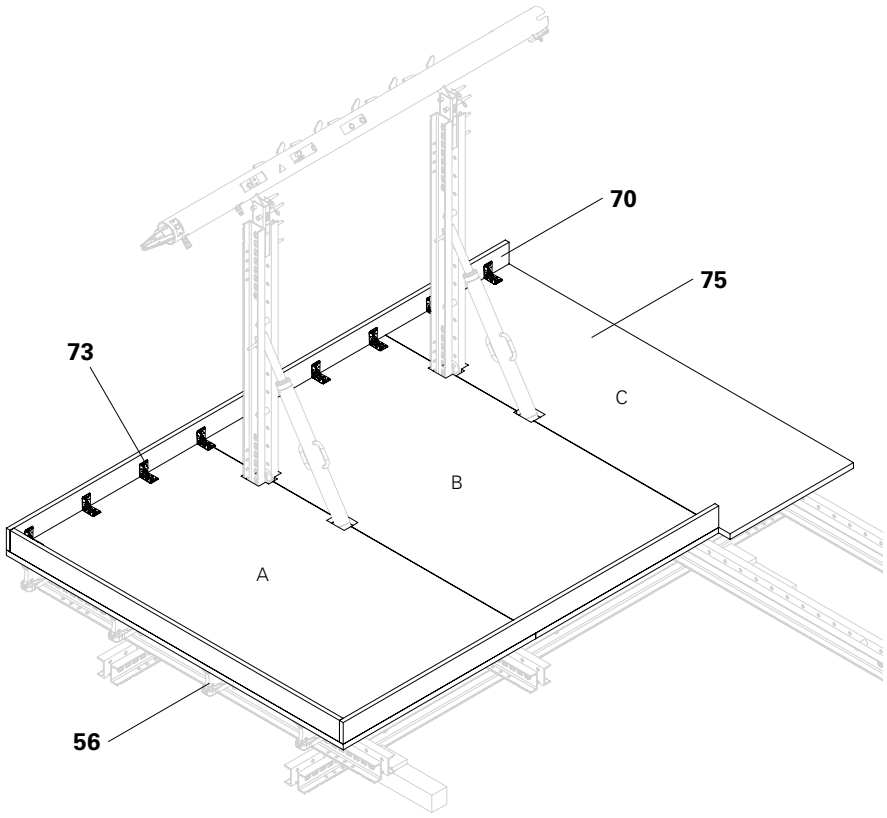


Fig. B2.11

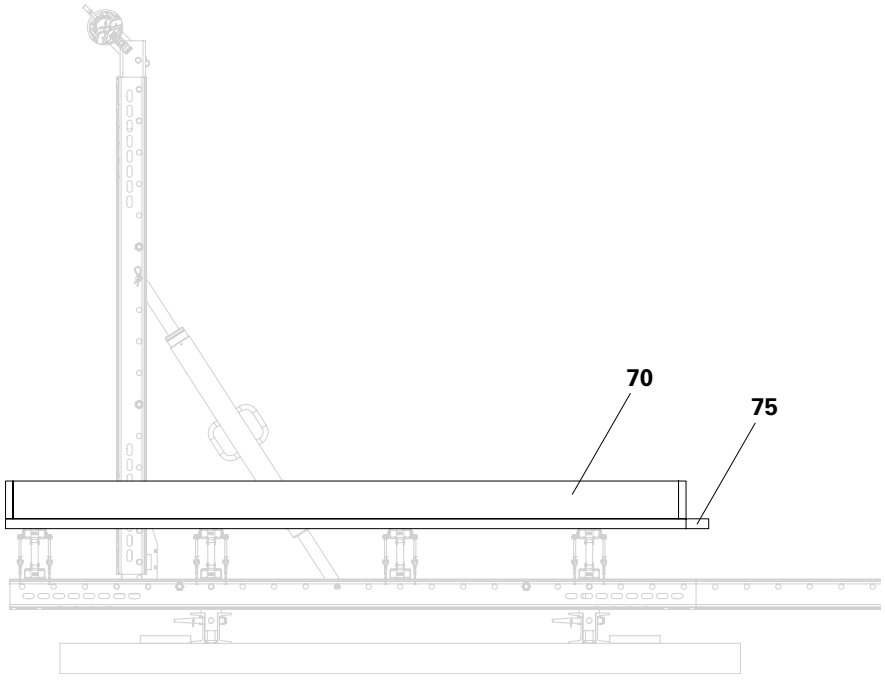


Fig. B2.11a

B2 Pre-assembly of leading and finishing platform/drive unit

Attaching the Angle Connector SRU VCT for the roller unit

Components

13 Angle Connector SRU VCT
14 Roller Unit Socket VCT
14.1 G-Hook
15 Roller Unit VCT
26 Articulated spindle Ø 21 35 - 47
28 Fitting Pin Ø21x120 mm
29 Cotter Pin 4/1 ga
50.f Steel Waler SRU 222 U120
50.h Steel Waler SRU 247 U120

Assembly

1. Fit the Angle Connector SRU VCT (**13**) to the Steel Waler SRU (**50.f**) with Fitting Pin Ø21x120 mm (**28**) and secure with Cotter Pin 4/1 (**29**).

(Fig. B2.12 + Fig. B2.12a)

2. Fit the articulated spindle Ø 21 35 - 47 (**26**) to the vertical Steel Waler SRU (**50.f**) with Fitting Pin Ø21x120 mm (**28**) and secure with Cotter Pin 4/1 (**29**).
3. Fit the articulated spindle Ø 21 35 - 47 (**26**) to the Angle Connector SRU VCT (**13**) with Fitting Pin Ø21x120 mm (**28**) and secure with Cotter Pin 4/1 (**29**).

(Fig. B2.12 + Fig. B2.12a)

4. Fit the second Angle Connector SRU VCT (**13**) in the manner described above.

- Set the articulated spindle to the specified length. Set the Angle Connector SRU VCT (**13**) perpendicular to the support surface.
- The Angle Connector SRU VCT (**13**) with the roller unit is supported at right angles to the steel body of the bridge.
- Fine adjustment can be carried out later by turning the Articulated Spindle Ø21 35-47 (**26**).

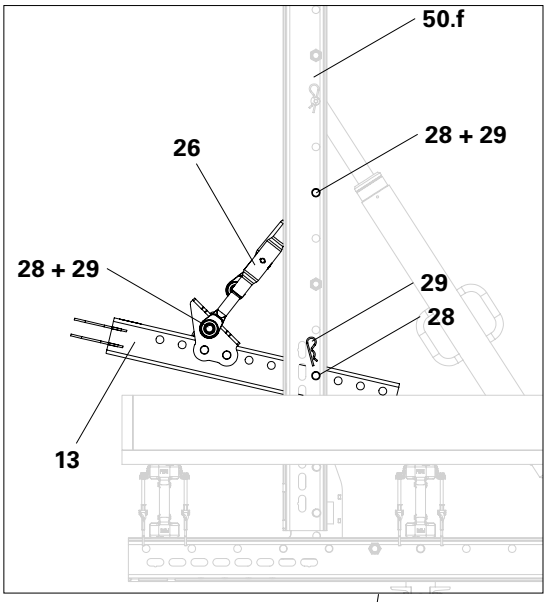


Fig. B2.12a

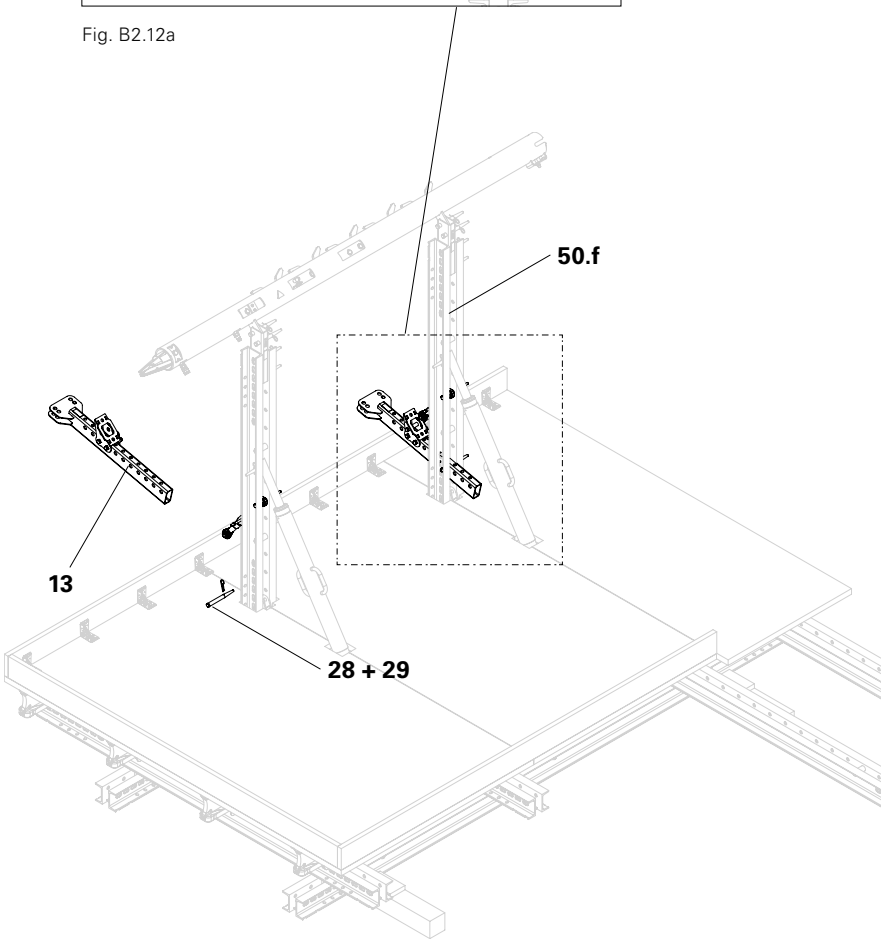


Fig. B2.12

B2 Pre-assembly of leading and finishing platform/drive unit

Installing the horizontal Steel Waler SRU

Assembly

1. Slide the Steel Waler SRU 247 (**50.h**) onto the two Angle Connectors SRU VCT (**13**) and align evenly.
2. Fit with 2x Fitting Pins Ø 21 x 120 (**28**). Secure with Cotter Pin 4/1 ga (**29**).

(Fig. B2.13 Fig. B2.13a)

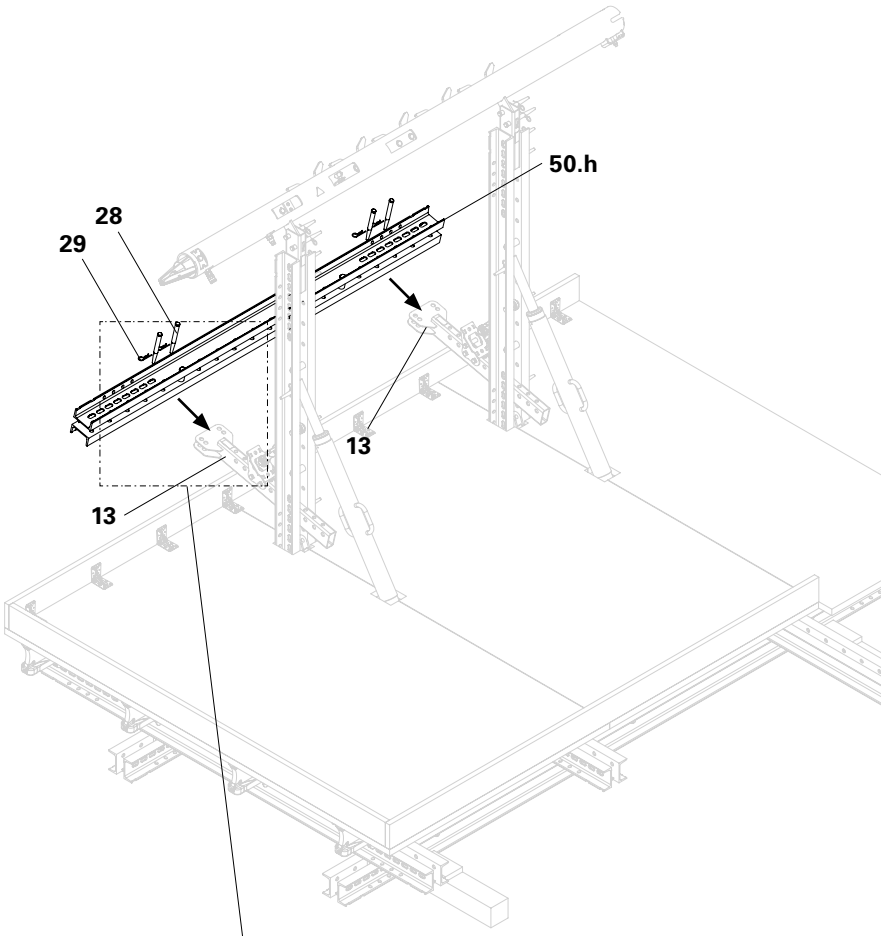


Fig. B2.13

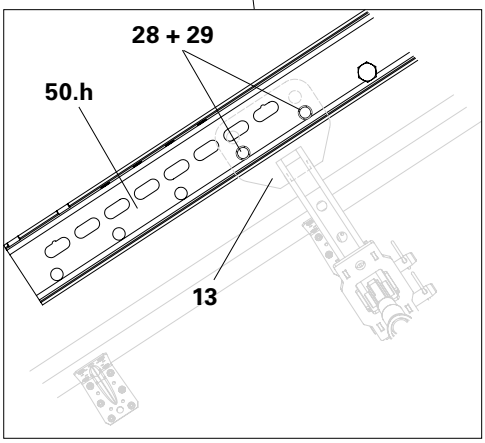


Fig. B2.13a

B2 Pre-assembly of leading and finishing platform/drive unit

Fitting the roller unit for traversing on a steel trough

- Two Roller Unit Sockets VCT (**14**) are required for each horizontal Steel Waler SRU (**50.h**).
- The distance between the leading platform and the bridge object can be adjusted using the Roller Unit VCT (**15**).

Assembly

1. Insert both Roller Unit Sockets VCT (**14**) on the horizontal Steel Waler SRU (**50.h**) at the statically specified position.
2. Insert the Roller Unit Socket VCT (**14**) into the horizontal Steel Waler SRU (**50.h**) and fit with 2x Fitting Pins Ø21x120 mm (**28**).
   Secure with 2x cotter pin 4/1 (**29**).
3. Insert the Roller Unit VCT (**15**) into the Roller Unit Sockets VCT (**14**) and secure in the corresponding position with the G-hook (**14.1**).

(Fig. B2.14 + Fig. B2.14a + Fig. B2.14b)

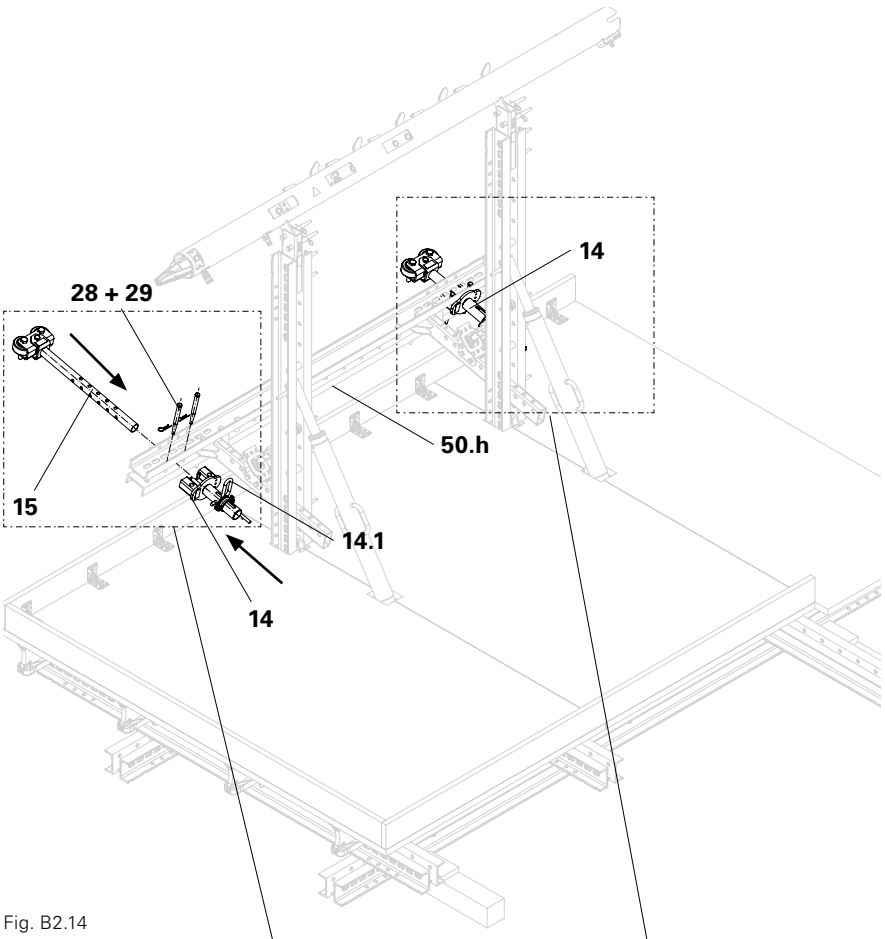


Fig. B2.14

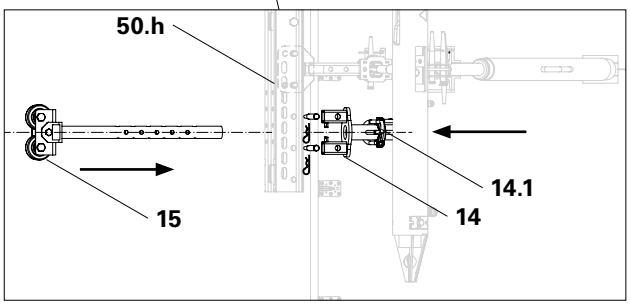


Fig. B2.14a

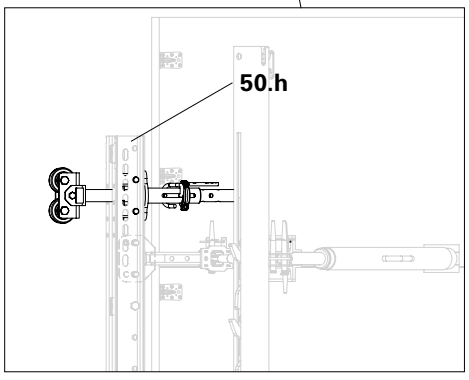


Fig. B2.14b

B2 Pre-assembly of leading and finishing platform/drive unit

Fitting the lateral protection

- Dimension lateral protection in accordance with EN 12811.
- Lateral protection must be fitted to all fall edges.
- Lateral protection boards and toe boards must be fastened to the guardrail posts and/or platform decking with screws.
- Create lateral protection and toe boards for scaffolding components in accordance with the manufacturer's specifications.

Variant for full enclosure

The full enclosure variant results in increased areas exposed to the wind and must be taken into consideration in the project-related static.

Preparing lateral protection

Components:

28 Fitting Pin Ø21x120mm
29 Cotter Pin 4/1 ga
30 Corner Connector SRU VARIOKIT
53 Guardrail Post RCS/SRU 184
53.1 Bolt ISO 4017-M 20 x 100-8.8
53.2 Hex. Nut ISO 7040-M20-8.8

Fitting the Corner Connector SRU VARIOKIT for lateral protection

1. Push the Corner Connector SRU VARIOKIT (**30**) into the Steel Waler SRU U120, fit 2x Fitting Pin Ø21x120 mm into the holes (**28**). Secure with 2x cotter pin 4/1 (**29**).

(Fig. B2.15 + Fig. B2.15a)

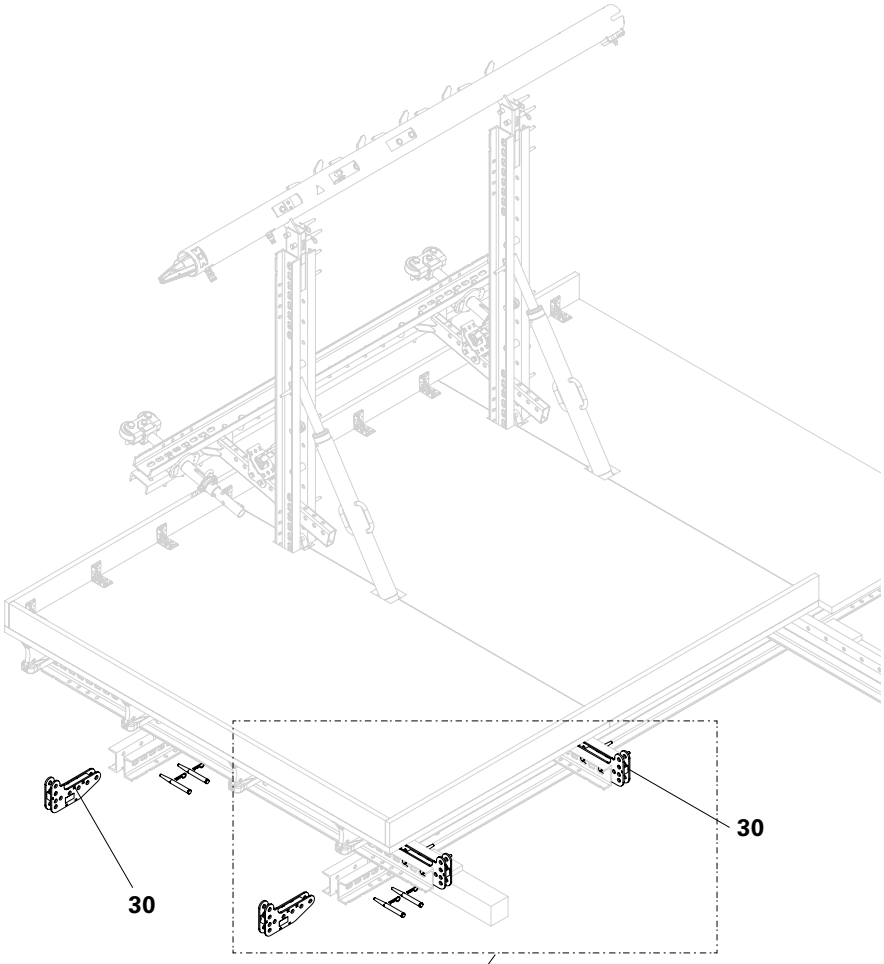


Fig. B2.15

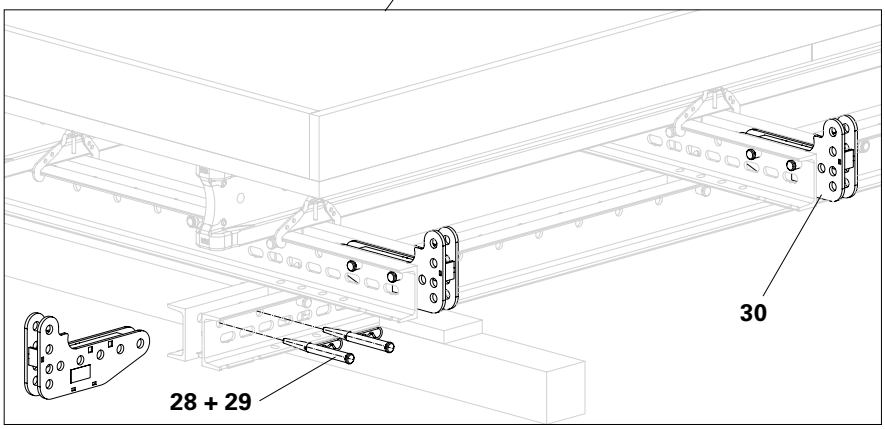


Fig. B2.15a

B2 Pre-assembly of leading and finishing platform/drive unit

- All loads that arise must be safely transferred.
- All materials used must have sufficient load-bearing capacity.

The Guardrail Post RCS/SRU 184 can be used for temporary lateral protection pursuant to EN 13374.

Installing guardrail posts for lateral protection

- Lateral protection is required on all platforms.
- Front side protection is required on the leading and finishing platforms.
- Assembly is carried out in the same manner as for the lateral protection.

Mounting the guardrail post

1. Remove 2x bolts ISO 4070 M20 x 100 (**53.1**) and 2x nuts ISO 7040 M20-8 (**53.2**) from Guardrail Post RCS/SRU 184 (**53**).
2. Fit the bottom holes of Guardrail Post RCS/SRU 184 (**53**) and Corner Connector SRU VARIOKIT (**30**) with 2x screws.
3. Fit the guardrail post onto Corner Connector SRU VARIOKIT (**30**) with 2x bolts ISO 4070 M20 x 100 (**53.1**) and 2x nuts ISO 7040 M20-8 (**53.2**).

(Fig. B2.16 – Fig. B2.16b)

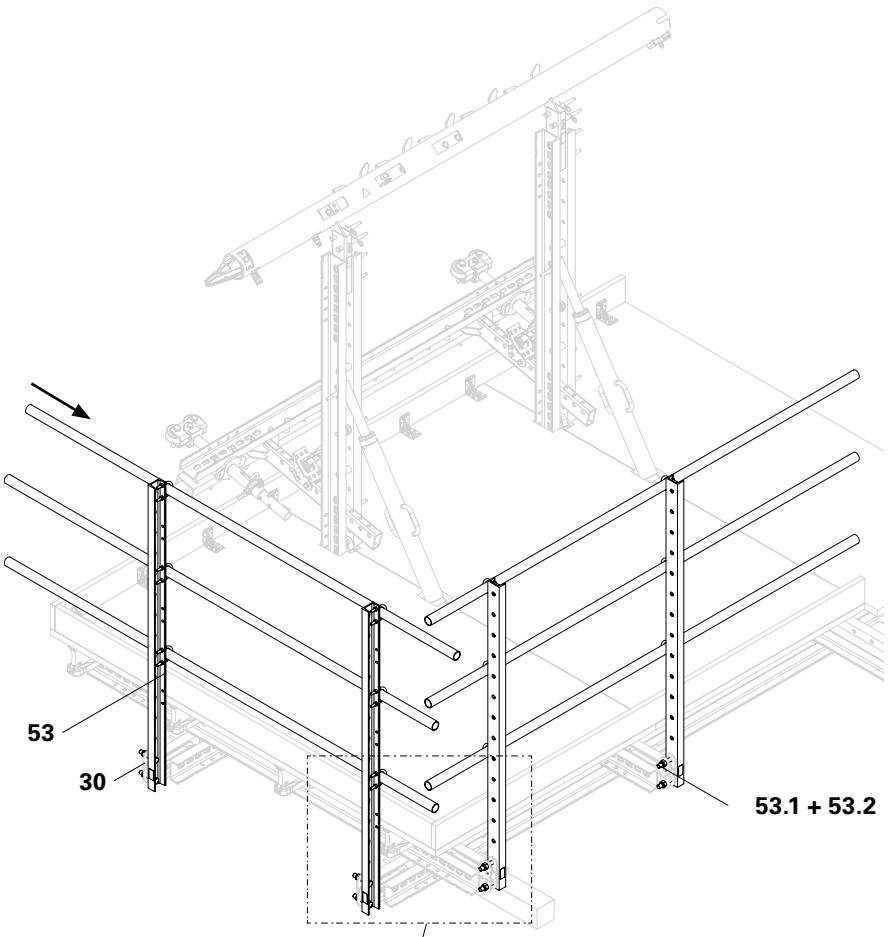


Fig. B2.16

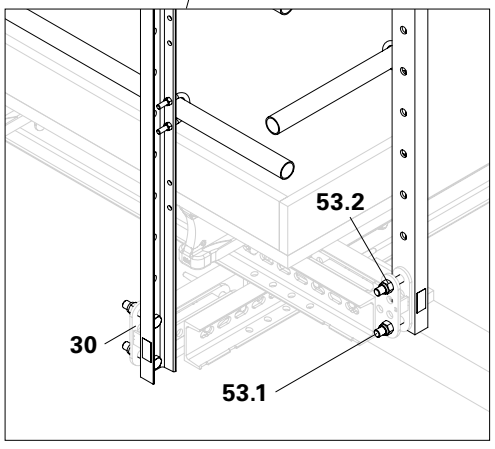


Fig. B2.16a

B2 Pre-assembly of leading and finishing platform/drive unit

Fitting the lateral protection

- The scaffolding tube offset to the side and rear is due to the Steel Walers SRU lying on top of each other.

(Fig. B2.16)

- The upper lateral scaffolding tube (**55**) may have to be moved to meet the project requirements (steel trough cantilever).

(Fig. B2.16 + Fig. B2.16b)

- The scaffolding tube lengths are project-specific.

Components:

53 Guardrail Post RCS/SRU 184
53.1 Bolt ISO 4017-M 20 x 100-8.8
53.2 Hex. Nut ISO 7040-M20-8.8
54 Clamp A64 DIN 3570-M12-ga
55 Scaffolding tube 48.3 x 3.2mm
59 HEX NUT ISO 4032-M12-8-ga

Assembly

1. Adjust the length of the steel scaffolding tube Ø 48.3 x 3.2 (**55**) to suit the element width.
2. Position the Scaffold Tube Steel Ø 48.3 x 3.2 (**55**) on Guardrail Post RCS/SRU 184 (**53**) starting from the top.
3. Place bracket A64 DIN 3570 M12 (**54**) Scaffold Tube Steel Ø 48.3 x 3.2 (**55**) and insert it into the holes in Guardrail Post RCS/SRU 184 (**53**).
4. Secure both threaded ends of bracket A64 DIN 3570 M12 (**54**) on the back of the guardrail post with nuts ISO 4032-M12-8 (**59**).
5. Mount the Scaffold Tube Steel Ø 48.3 x 3.2 (**55**) horizontally. Observe the maximum distances between scaffolding tubes.

(Fig. B2.16b – Fig. B2.17a)

Are all the scaffolding tubes screwed in tight?

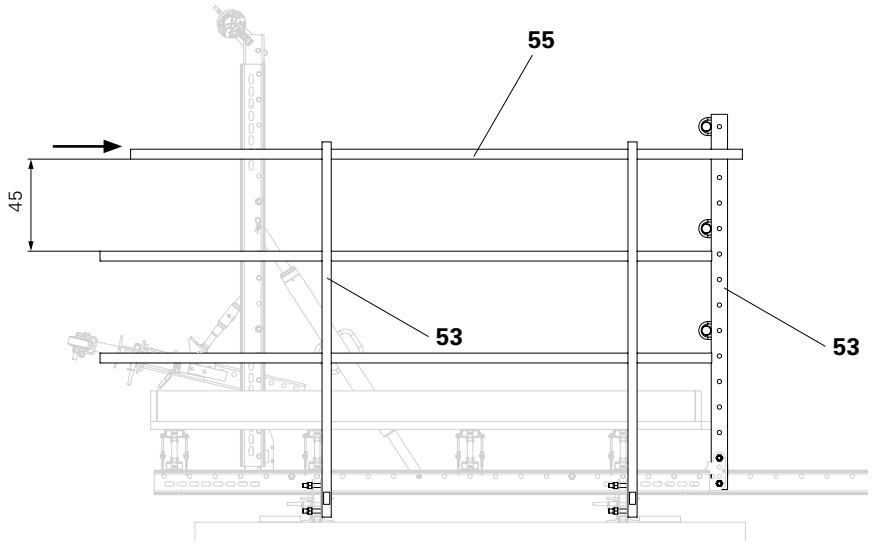


Fig. B2.16b

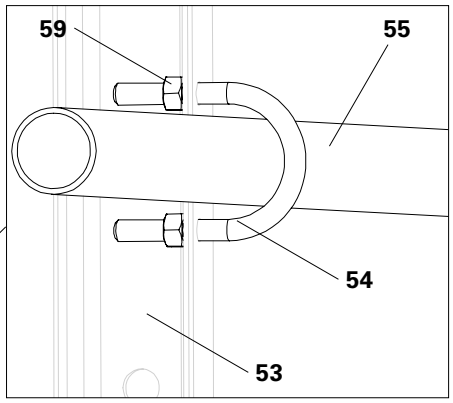


Fig. B2.17a

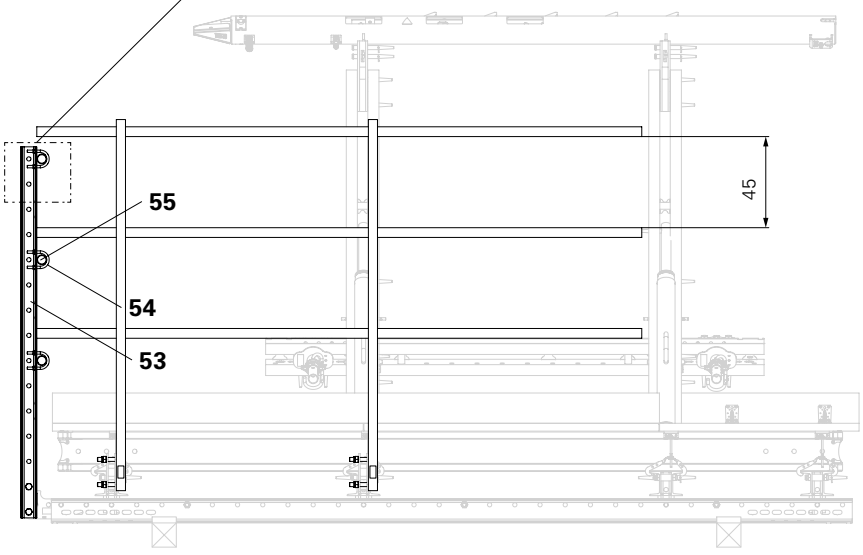


Fig. B2.17

B2 Pre-assembly of leading and finishing platform/drive unit

Preparing the ladder tower

Components:

28	Fitting pin Ø 21 x 120
29	Cotter Pin 4/1 ga
50.m	Steel Waler SRU 447 U120
76	Horizontal Ledger UH-2
77	Base Standard Variokit UVA
91	Steel Deck UDG-2 25 x 75

Fitting Adj. Base Plates for the ladder tower

1. Insert the Base Standard Variokit UVA (**77**) into the 4th hole of the Steel Waler SRU 447 U120 (**50.m**) and fit with Fitting Pin Ø21x120 mm (**28**).
   Secure with Cotter Pin 4/1 ga (**29**).
2. Fit the next Base Standard Variokit UVA (**77**) at a distance of 75 cm.
3. Fit the following Base Standard Variokit UVA (**77**) at a distance of 50 cm.
4. Fit the base standards to the neighbouring cantilevered Steel Waler SRU 447 U120 (**50.m**) in the same way as described above.

(Fig. B2.18 + Fig. B2.18a)

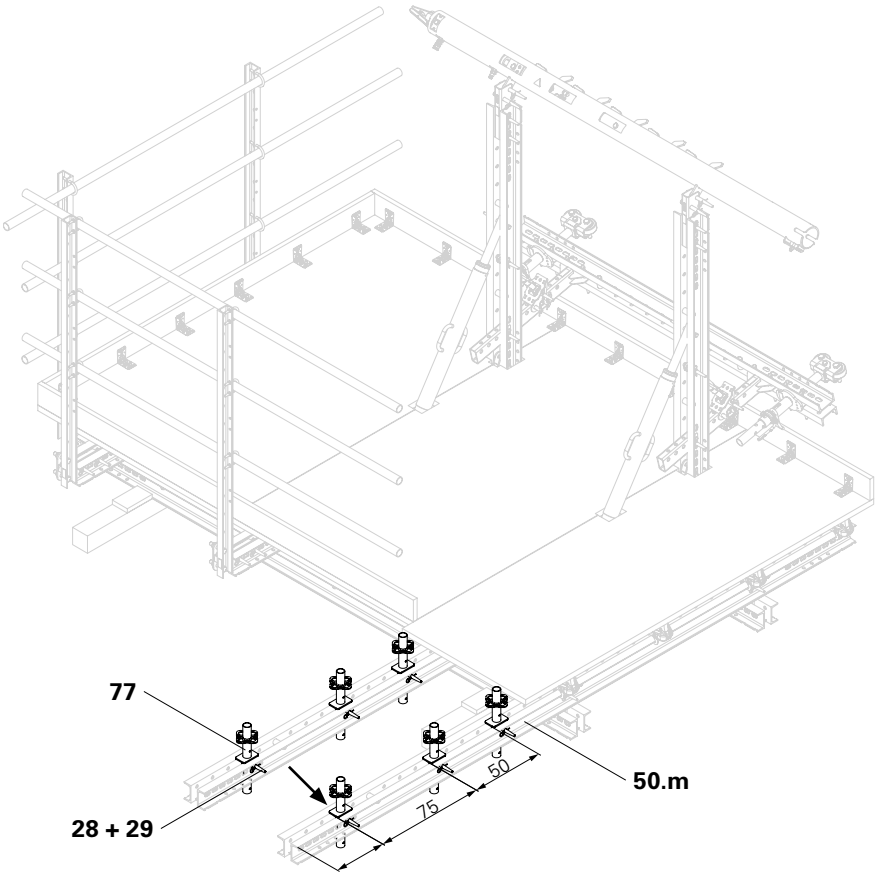


Fig. B2.18

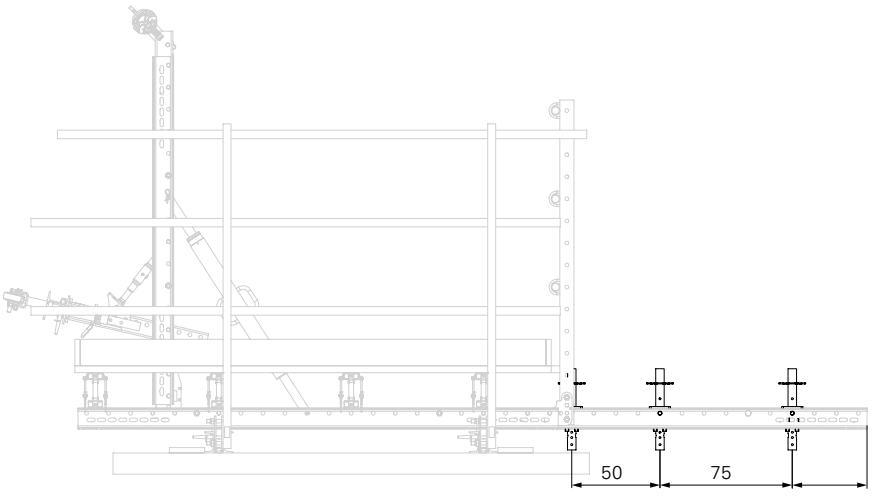


Fig. B2.18a

B2 Pre-assembly of leading and finishing platform/drive unit

Installing horizontal ledgers and steel decks for the ladder tower

Assembly

1. Insert the appropriate Horizontal Ledgers UH-2 (**76**) into the Base Standard Variokit UVA (**77**) and lock in place.
   → The frame for the ladder tower has been set up.
2. Place the Steel Deck UDG-2 25x75 (**91**) on the Horizontal Ledger UH-2 (**76**) and allow it to drop.
   – The lift lock automatically secures the steel deck.
   – for the detailed procedure, see PERI UP Scaffolding Kit.

(Fig. B2.19 + Fig. B2.19a)

- Have all lift locks fallen below the horizontal ledger? The bracket must be flush with the deck. (Fig. B2.19a)
- If not, lift the deck slightly and let it drop into position or operate the lift lock manually.

- The leading platform can be hooked into the assembly heads by crane, see “Assembly Head VCT” on page 33.

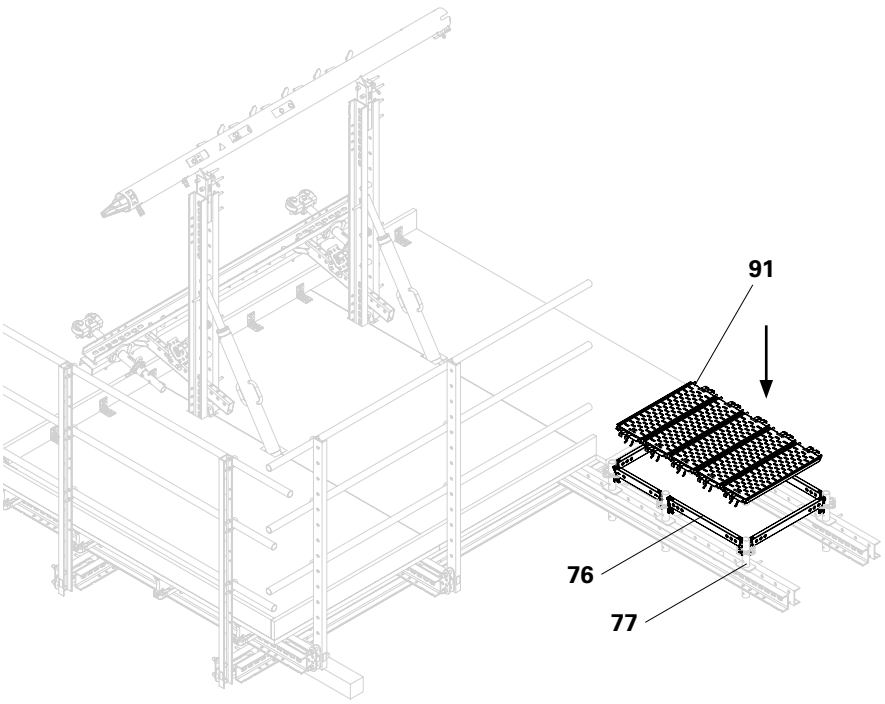


Fig. B2.19

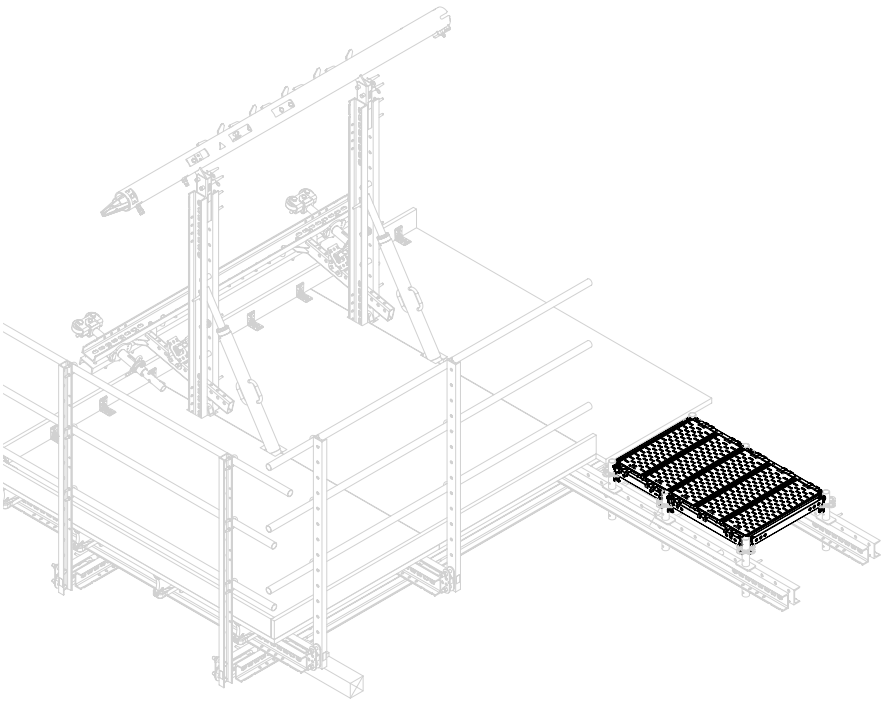


Fig. B2.19a

Formwork unit assembly

The formwork unit is made up of a working platform and cantilevered formwork on a project-specific basis. The main components are:

- Working platform (**38**), constructed or pre-assembled on site.
- Cantilevered formwork (**39**), constructed or pre-assembled on site.
- Lateral protection and various superstructures.

(Fig. B3.01 + Fig. B3.01a)

- The formwork unit is always 3 m in length.
- Possible console bracket disc spacing (a) 1 m = 3 console bracket discs, or 1.5 m = 2 console bracket discs.
- For installation, a crane or other lifting device as well as a level assembly surface is required.
- Intermediate states must be correctly secured by means of temporary supports to prevent any tipping over.

Components:

9	Rail Track VCT 300
12	Adjusting Unit VCT
15	Roller Unit VCT
24	Striking Lever VCT
28	Fitting Pin Ø21x120mm
29	Cotter Pin 4/1 ga
30	Corner Connector SRU VARIOKIT
36	Heavy Duty Spindle SLS 200-300
38	Working platform (assembly)
39	Cantilevered formwork (assembly)
50.f	Steel Waler SRU 222 U120
50.h	Steel Waler SRU 247 U120
50.i	Steel Waler SRU 272 U120
50.k	Steel Waler SRU 347 U120
53	Guardrail Post RCS/SRU 184
54	Bracket A64 DIN 3570-M12
55	Scaffold Tube Steel Ø 48.3 x 3.2 mm

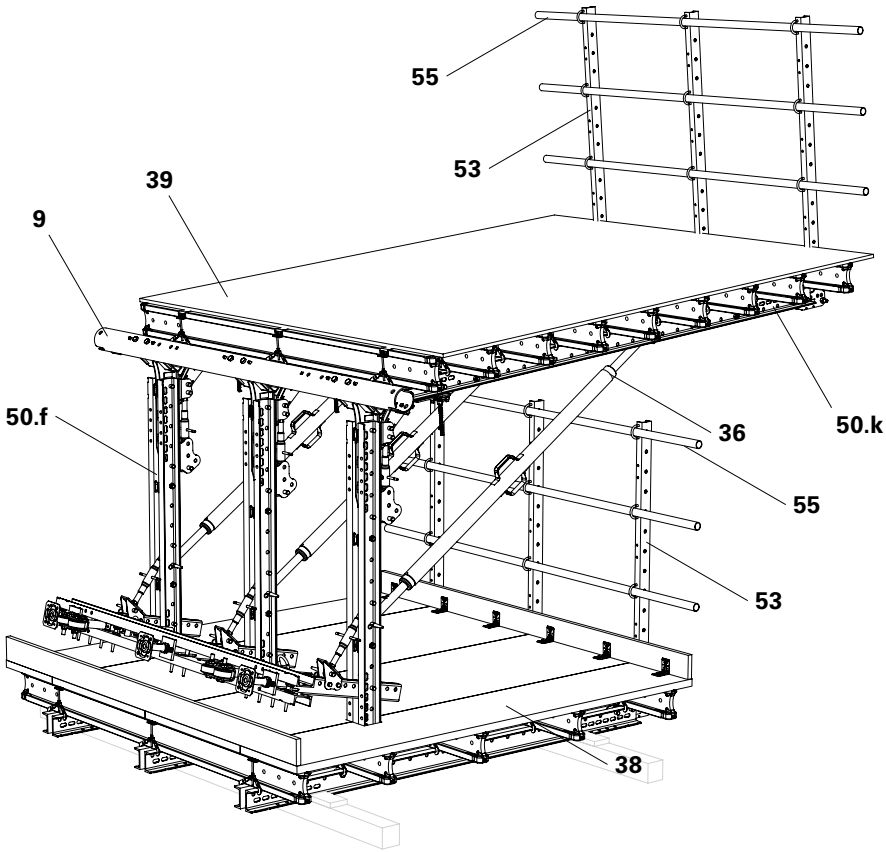


Fig. B3.01

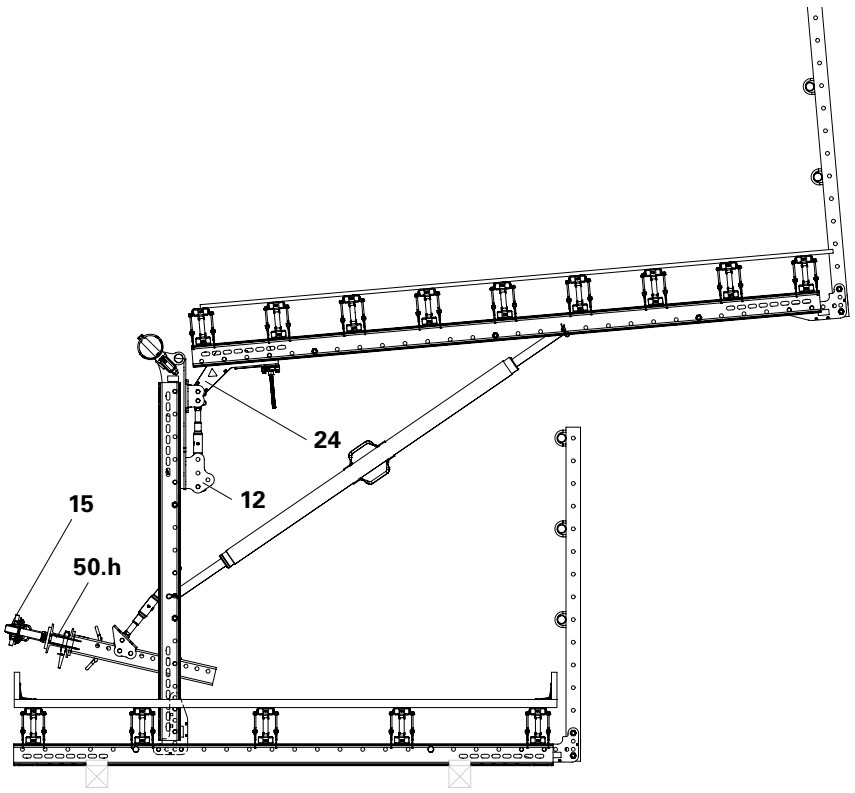


Fig. B3.01a

Cantilevered formwork (concreting platform), preparing for assembly

PERI recommends setting up a level assembly area.

- Stops positioned at right-angles simplify precise and fast pre-assembly of the cantilevered formwork.
- More information can be provided by PERI on request.

- For assembly, a crane or other lifting device as well as a level assembly surface are required.

Preparing the assembly surface

1. Prepare a sufficiently large assembly surface, e.g. A multi-layer plywood sheet.
   See dimensioning.
2. Create a stop rail.
2. Nail or screw the stops to the assembly surface.
   See dimensioning.

(Fig. B3.02 + Fig. B3.02a)

Example for console bracket disc spacing 100 cm.
For console bracket spacing of 150 cm, adjust accordingly.

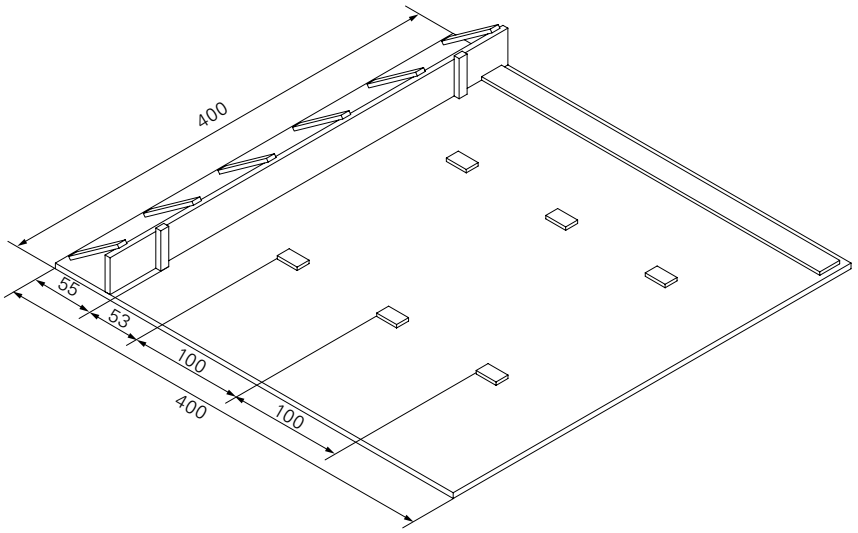


Fig. B3.02

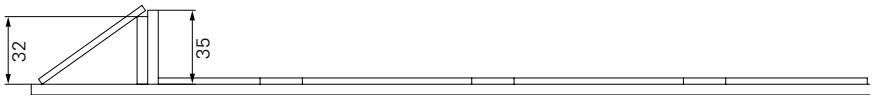


Fig. B3.02a

Assembly of cantilevered formwork

Components:

24 Striking Lever VCT
24.1 Wingnut Counterplate DW 15 ga
28 Fitting Pin Ø21x120mm
29 Cotter Pin 4/1 ga
30 Corner Connector SRU VARIOKIT
50 Steel Waler SRU
50.k Steel Waler SRU 347 U120
56 Girders VT 20K
57 Hook Strap Uni HBU 20-24

Pre-fitting Steel Waler SRU

1. Position the Steel Waler SRU 347 (**50.k**) at the stops and align evenly. (Fig. B3.03 + Fig. B3.03b)

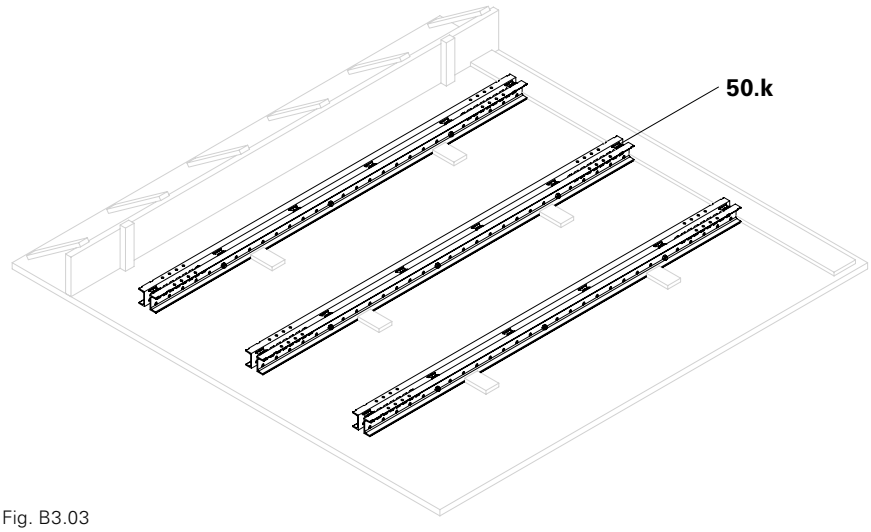


Fig. B3.03

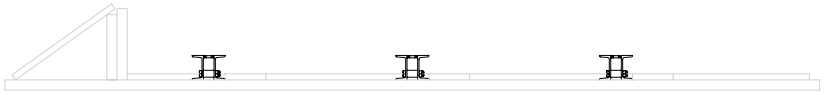


Fig. B3.03a

Check the frame for dimensional accuracy (diagonal) and perpendicularity.

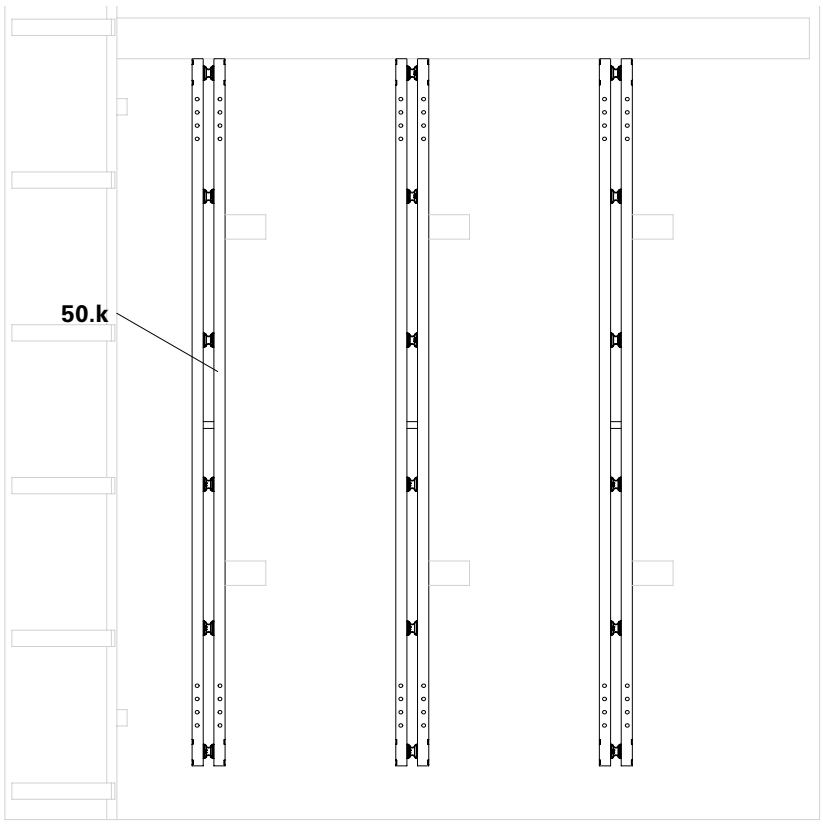


Fig. B3.03b

Mounting the Girders VT 20

1. Place the Girders VT 20K (**56**) on the Steel Walers SRU (**50**) according to the project plan.
2. Fasten the Girders VT 20K (**56**) to the Steel Walers SRU (**50**) with 3x Hook Straps Uni HBU (**57**). Distance (d) is project-specific, ensure perpendicularity.

(Fig. B3.04 + Fig. B3.04a)

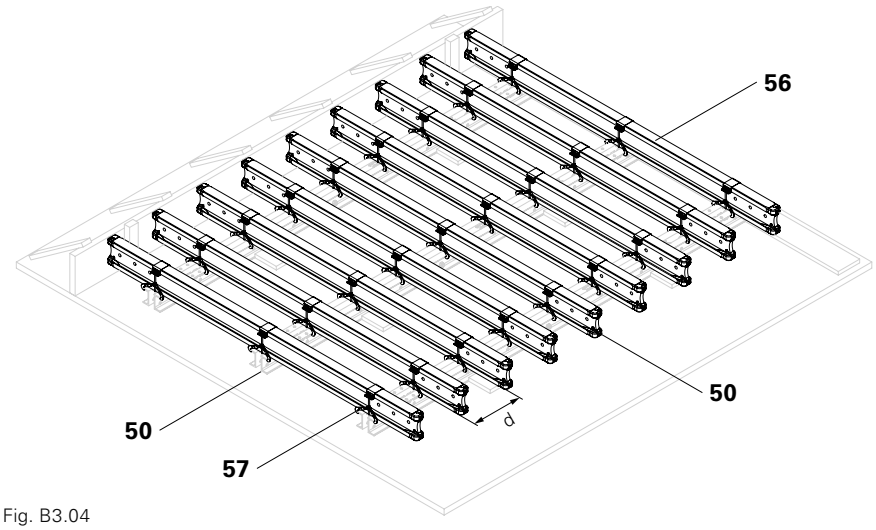


Fig. B3.04

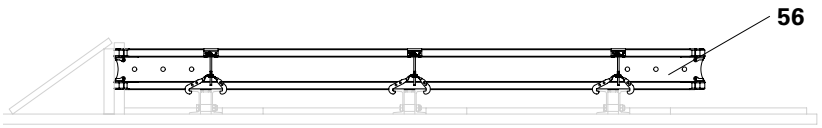


Fig. B3.04a

Fitting formlining for cantilevered formwork

Components

50.k Steel Waler SRU 347 U120
56 Girders VT 20K
74 Wood Screw 6x80 SK-TX30
85 Formlining

Assembly

1. Saw the formlining (**85**) to project-specific dimensions based on the specifications.
2. Saw out or recess the formlining (**85**) around vertical superstructures as required for the project.
3. Align the formlining (**85**) on Girders VT 20K (**56**) offset by the dimension shown (a = 4 cm).
3. Align formlining (**85**) and screw tightly to Girders VT 20K (**56**) with wood screws 6x80 SK-TX30 (**74**).
   – Ensure perpendicularity
   – See dimensioning

(Fig. B3.05 – Fig. B3.05a)

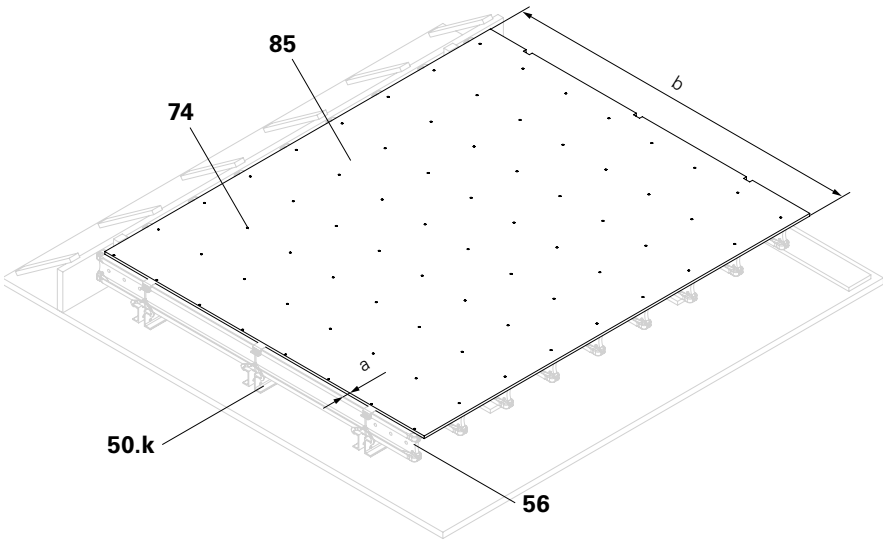


Fig. B3.05

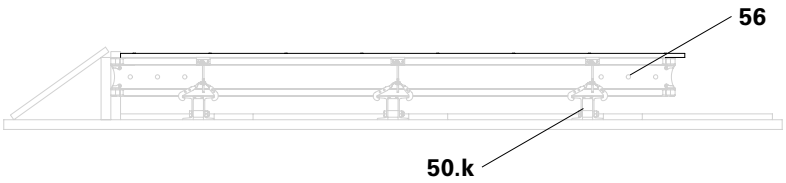


Fig. B3.05a

For formwork units of 300 cm, limit the formlining width dimension (b) to max. 290 cm. This makes bridge radii possible.

(Fig. B3.05)

For further processing, PERI recommends placing the substructure of the cantilevered formwork on squared timbers measuring 30 x 20 cm (min. height = 30 cm), see dimensioning. (Fig. B3.06)

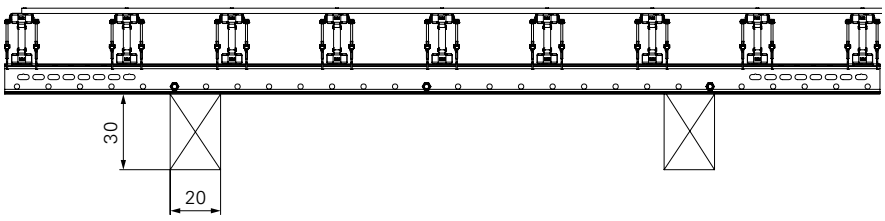


Fig. B3.06

Fitting the striking lever

Components:

24 Striking Lever VCT
24.1 Wingnut Counterplate DW 15 ga
28 Fitting Pin Ø21x120mm
29 Cotter Pin 4/1 ga
30 Corner Connector SRU VARIOKIT
50.k Steel Waler SRU 347 U120
56 Girders VT 20K
57 Hook Strap Uni HBU 20-24

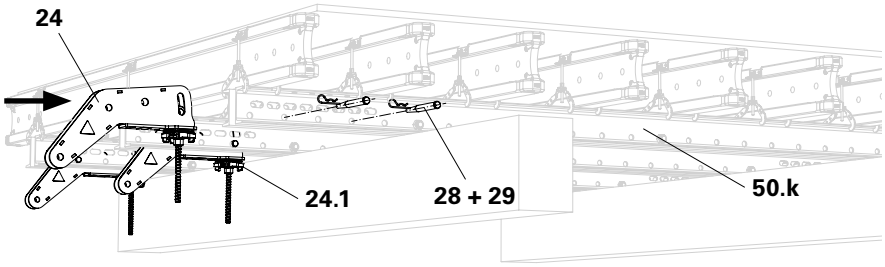


Fig. B3.07

Assembly

1. Slide the Striking Lever VCT (**24**) into the Steel Waler SRU 347 (**50.k**) of the cantilevered formwork.
2. Fit Striking Lever VCT (**24**) in holes 2 and 4 in Steel Waler SRU 347 (**50.k**) with 2x Fitting Pins Ø21x120 mm. Secure with 2x cotter pin 4/1 (**29**).
3. Tighten Wingnut Counterplate DW 15 (**24.1**).

→ The Striking Lever VCT (**24**) is in the "shuttering position".

(Fig. B3.07 – Fig. B3.07a)

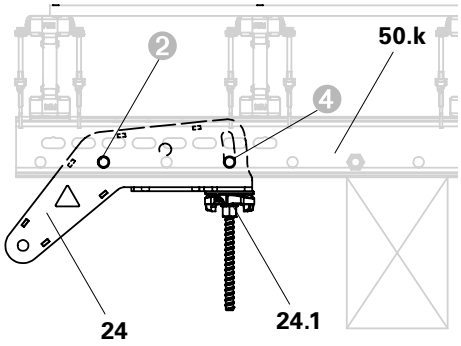


Fig. B3.07a

Fitting corner connectors

Assembly

1. Insert the Corner Connector SRU (**30**) into the Steel Waler SRU (**50**) and fit with 2x Fitting Pins Ø21x120 mm (**28**). Secure with 2x cotter pin 4/1 (**29**).

(Fig. B3.08 - Fig. B3.08b)

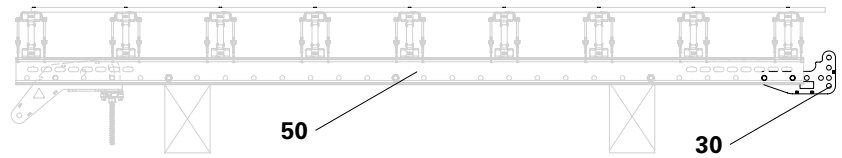


Fig. B3.08

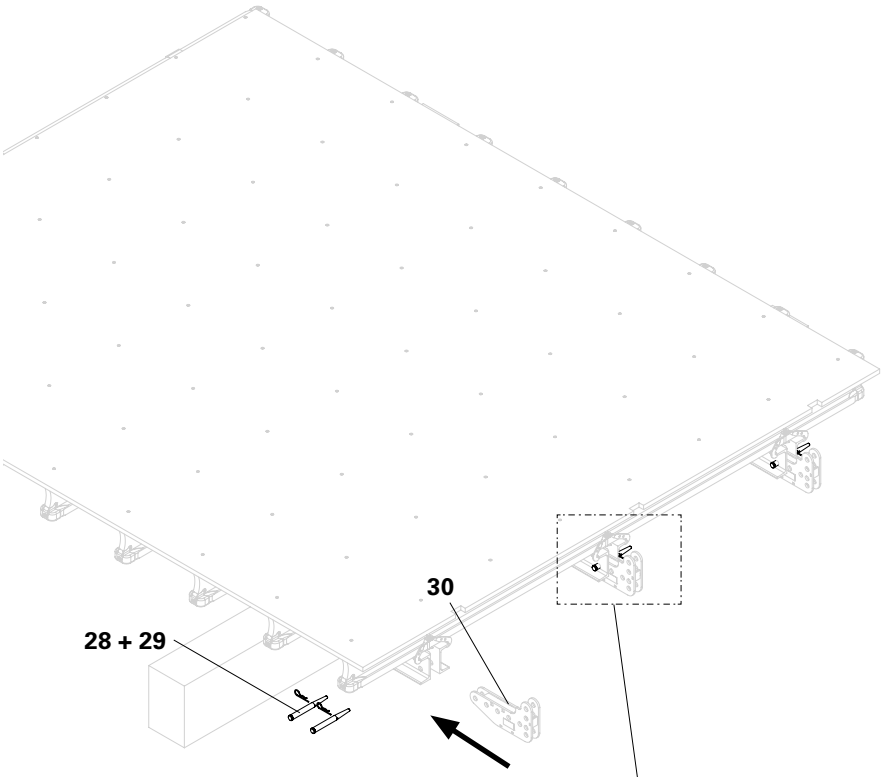


Fig. B3.08a

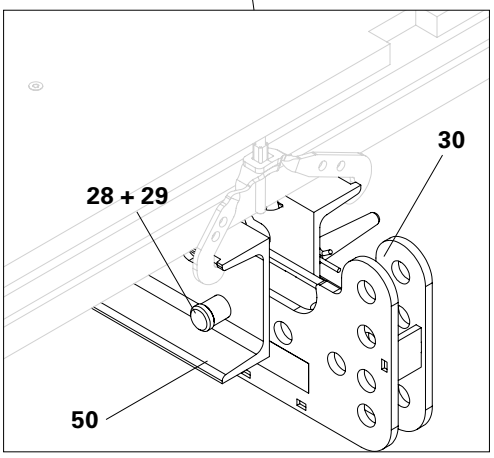


Fig. B3.08b

Lateral protection

- Dimension and install lateral protection in accordance with EN 12811.
- Lateral protection is required on all platforms.
- Front side protection is required on the first and last cantilevered formwork.
- All loads that arise must be safely transferred.
- All materials used must have sufficient load-bearing capacity.
- The Guardrail Post RCS/SRU 184 and the Guardrail Holder GT24/VT20 can be used for temporary lateral protection in accordance with EN 13374.

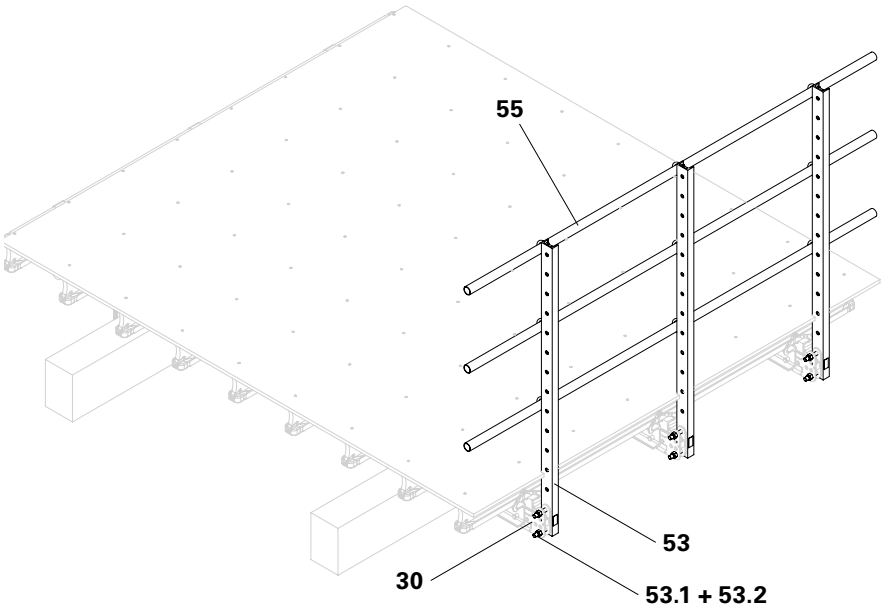


Fig. B3.09

Components:

30 Corner Connector SRU VARIOKIT
53 Guardrail Post RCS/SRU 184
53.1 Bolt ISO 4017-M 20 x 100-8.8
53.2 Hex. Nut ISO 7040-M20-8.8
54 Clamp A64 DIN 3570-M12-ga
55 Scaffolding tube 48.3 x 3.2mm
59 HEX NUT ISO 4032-M12-8-ga

Mounting the guardrail post

Assembly

1. Remove 2x bolts ISO 4070 M20 x 100 (**53.1**) and 2x nuts ISO 7040 M20-8 (**53.2**) from Guardrail Post RCS/SRU 184 (**53**).
2. Fit the bottom holes of Guardrail Post RCS/SRU 184 (**53**) and Corner Connector SRU VARIOKIT (**30**) with 2x screws.
3. Fit the guardrail post onto Corner Connector SRU VARIOKIT (**30**) with 2x bolts ISO 4070 M20 x 100 (**53.1**) and 2x nuts ISO 7040 M20-8 (**53.2**).

(Fig. B3.09)

Fitting the lateral protection

- The scaffolding tube lengths are project-specific.

Assembly

1. Screw bracket A64 DIN 3570 M12 (**54**) loosely to the top of the guard-rail post (**53**), starting with nuts M 12-8 (**59**).
2. Attach brackets to neighbouring guardrail posts at the same height.
3. Insert the Scaffold Tube Steel Ø 48.3 x 3.2 (**55**) through bracket A64 DIN 3570 M12 (**54**) and align it correctly.
4. Tighten the nuts (**59**) on the inside of Guardrail Post RCS/SRU 184 (**53**).

→ The scaffolding tube is fixed in place

5. Attach further brackets (**54**) to the guardrail posts (**53**) below the first one and fit with scaffolding tubes as described above.
   – Observe the maximum distances between scaffolding tubes.

(Fig. B3.10 + Fig. B3.10a)

Are all the scaffolding tubes screwed in tight?

For scaffolding tube lengths of l = 3 m, offset the height of the neighbouring scaffolding tube (**55**).

→ Ensure that the scaffolding tubes don't collide.

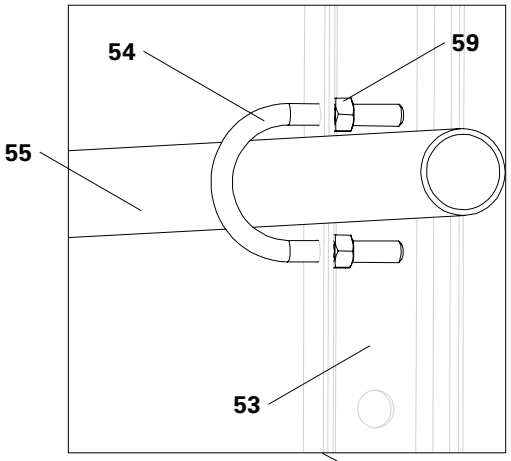


Fig. B3.10a

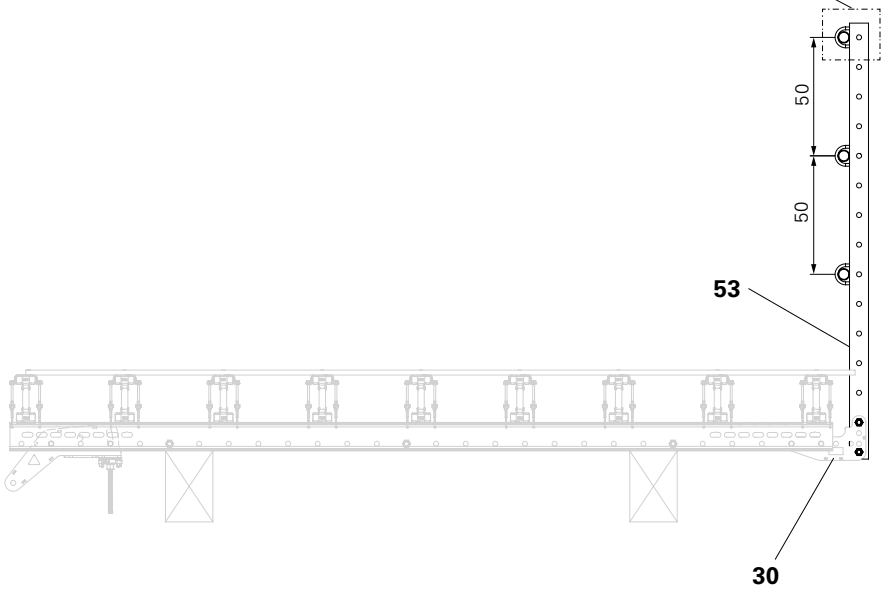


Fig. B3.10

Fitting the front side protection for cantilevered formwork

- Front side protection is required on the first and last cantilevered formwork.

Components:

28 Fitting pin Ø 21 x 120
29 Cotter Pin 4/1 ga
30 Corner Connector SRU VARIOKIT
38 Working platform (assembly)
39 Cantilevered formwork (assembly)
53 Guardrail Post RCS/SRU 184
54 Clamp A64 DIN 3570-M12-ga
55 Scaffolding tube 48.3 x 3.2mm
56 Girders VT 20K
59 HEX NUT ISO 4032-M12-8-ga
84 Guardrail Post HSGP-2
87 Guardrail Holder GT 24/VT 20
88 PROKIT Side Mesh Barrier PMB

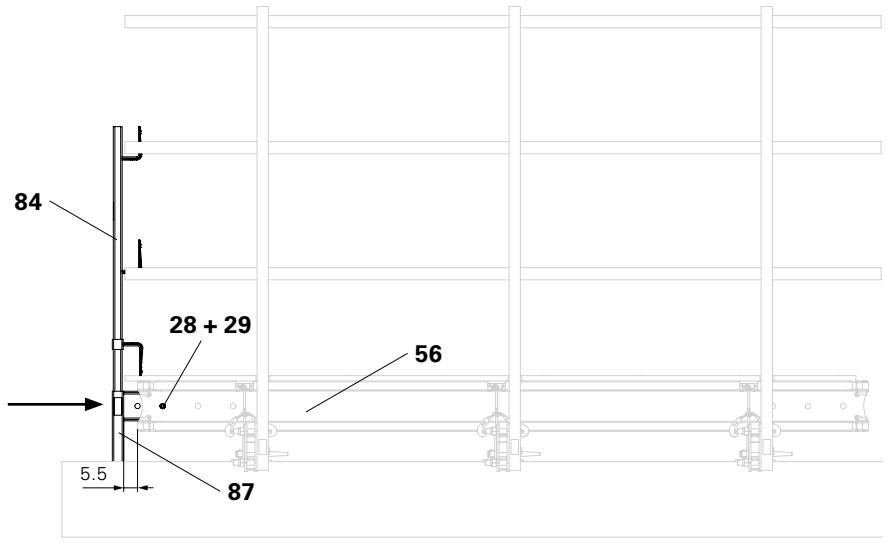


Fig. B3.11

Fitting guardrail holders

Assembly

1. Slide Guardrail Holders GT 24/ VT 20 (**87**) onto the front of Girders VT 20K (**56**) and fit with Fitting Pins Ø21x120 mm (**28**). Secure with Cotter Pin 4/1 ga (**29**).
2. Slide Posts PP (**84**) onto Guardrail Holders GT 24/VT 20 (**87**).

(Fig. B3.11 + Fig. B3.11a)

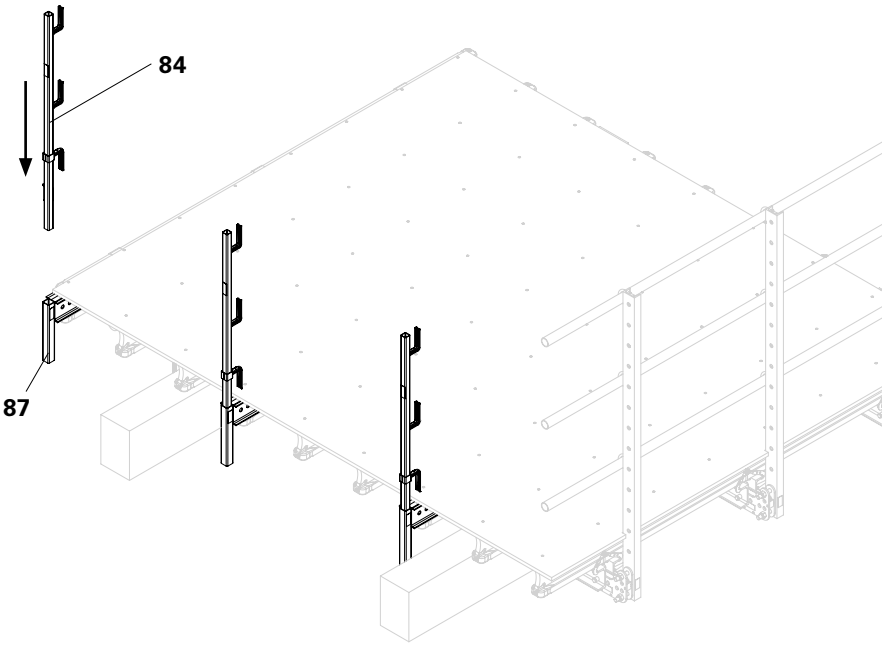


Fig. B3.11a

Assembling the side mesh barrier

1. Hook the Side Mesh Barrier PMB (**88**) into the upper holder of Post PP (**84**).
2. Push up the lower shiftable post holder and place the PROKIT Side Mesh Barrier PMB (**88**) on Post PP (**84**).
3. Push down the lower post holder.

→ The PROKIT Side Mesh Barrier PMB is secured.

(Fig. B3.12 – Fig. B3.12b)

The opening (passage) in the lateral protection is required as access for the ladder tower of the leading and finishing platform.
(Fig. B3.12b)

Once the cantilevered formwork assembly (**39**) and the working platform assembly (**38**) processes have been completed, they can be connected, see "B4 Installing the formwork unit" on page 88.

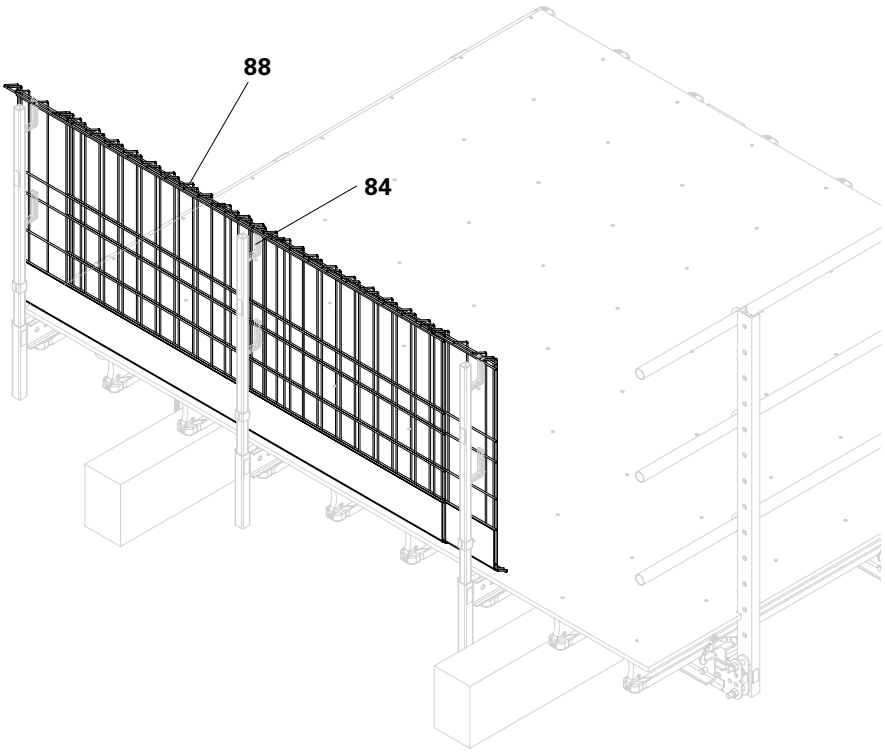


Fig. B3.12

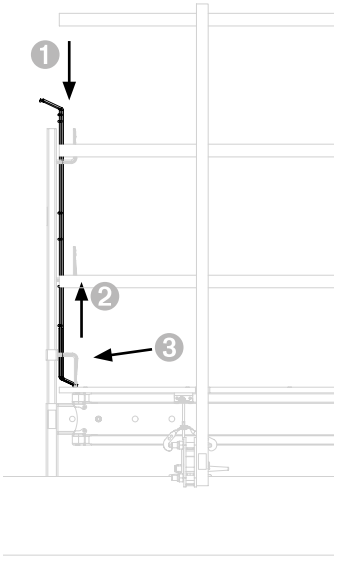


Fig. B3.12a

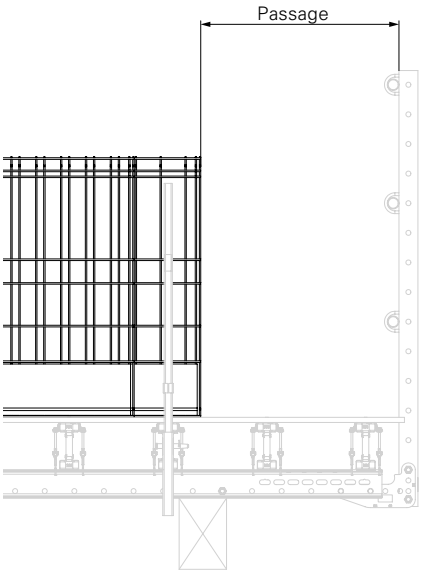


Fig. B3.12b

Fitting the rail track unit

Caution

The Rail Track VCT 300 (**9**) may fall down. Non-observance can lead to minor reversible injuries.

⇒ Secure the Rail Track VCT 300 (**9**) to prevent it from falling, e.g. with wooden wedges or screw clamps.

- The Rail Track VCT 300 consists of the following main components
  - Rail Track VCT 300 (**9**),
  - Adjusting Unit VCT (**12**),
  - Steel Waler SRU 222 U120 (**50.f**) and
  - Rail Track Coupler VCT (**11**).
- The Adjusting Units VCT (**12**) are designed on a project-specific basis, i.e. 2 or 3 adjusting units may be used for each Rail Track VCT 300 (**9**).
- The decisive factor is the required load on the concreting platform (cantilever formwork).

(Fig. B3.13 + Fig. B3.13a)

Components:

9	Rail Track VCT 300
10	Coupler Pin VCT
11	Rail Track Coupler VCT
12	Adjusting Unit VCT
50.f	Steel Waler SRU 222 U120
65	BOLT ISO 4014-M20 X 280-8.8
66	Hex. Nut ISO 7040-M20-8

For assembly with 3 adjusting units, PERI recommends

- setting up the support frames at a distance (a) of approx. 120 cm and
- allowing the rail track to protrude approx. 90 cm from the centre of the support frame.

Rail Track VCT 300 with 3 Adjusting Units VCT

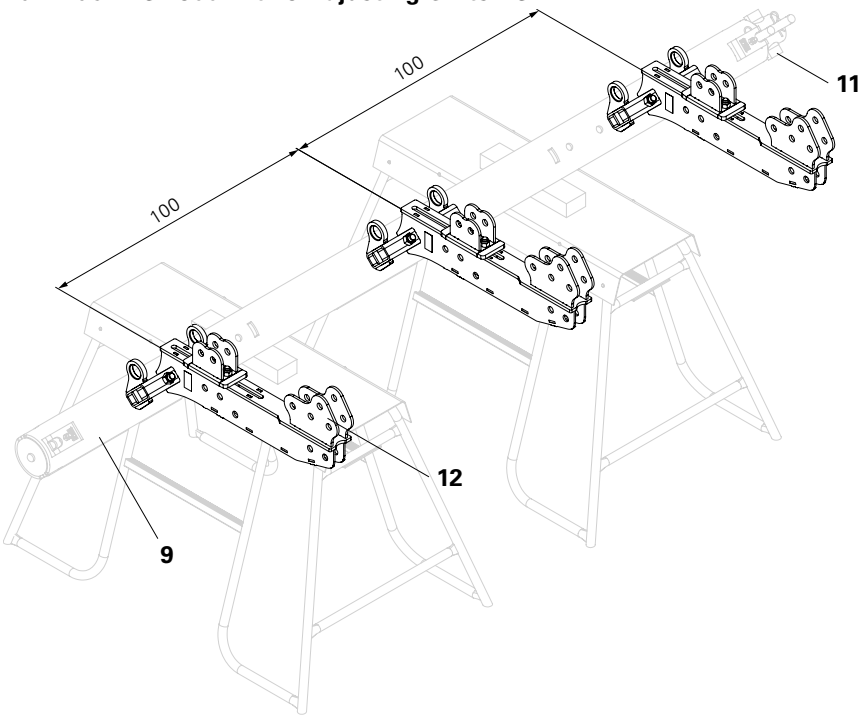


Fig. B3.13

Rail Track VCT 300 with 2 Adjusting Units VCT

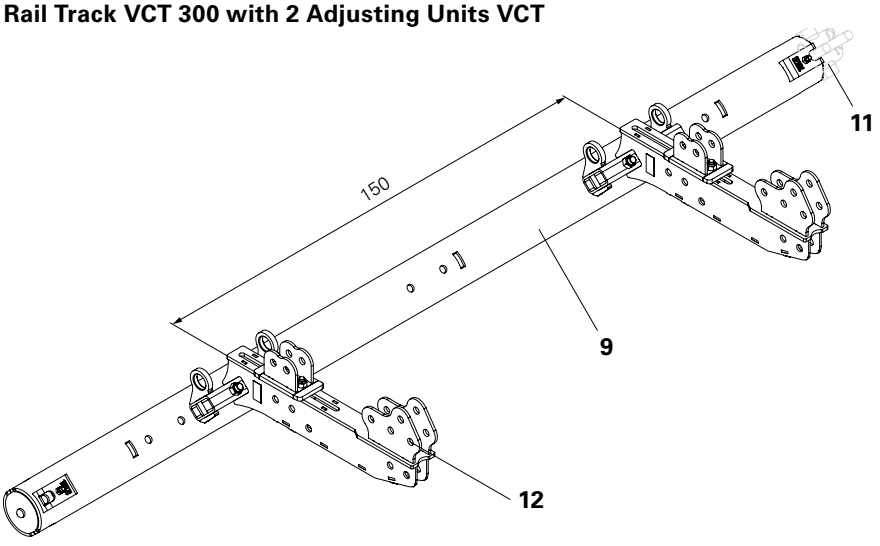


Fig. B3.13a

Fitting the Adjusting Unit VCT to the Rail Track VCT 300

Assembly

1. Place the Rail Track VCT 300 (**9**) on a suitable support frame and secure it with wooden wedges or screw clamps to prevent it from falling.
2. Fit the Rail Track Coupler VCT (**11**) with Coupler Pin VCT (**10**) to Rail Track VCT 300 (**9**) and secure with Cotter Pin 4/1 ga (**29**).

(Fig. B3.14b)

3. Insert the Adjusting Unit VCT (**12**) with the bracing at the specified positions in the Rail Track VCT 300 (**9**).
4. Screw the Adjusting Unit VCT (**12**) tight to the Rail Track VCT 300 (**9**) using 2x bolts ISO 4014 M20x280-8.8 (**65**) and 2x nuts ISO 7040 M20-8 (**66**).

(Fig. B3.14 + Fig. B3.14a)

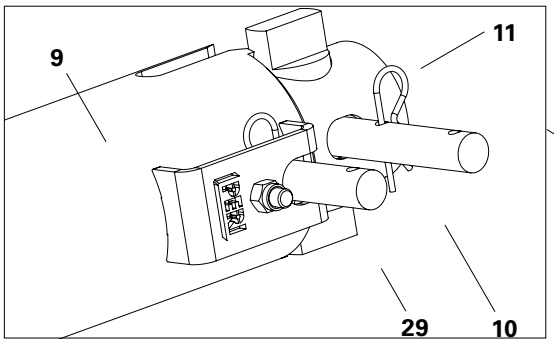


Fig. B3.14b

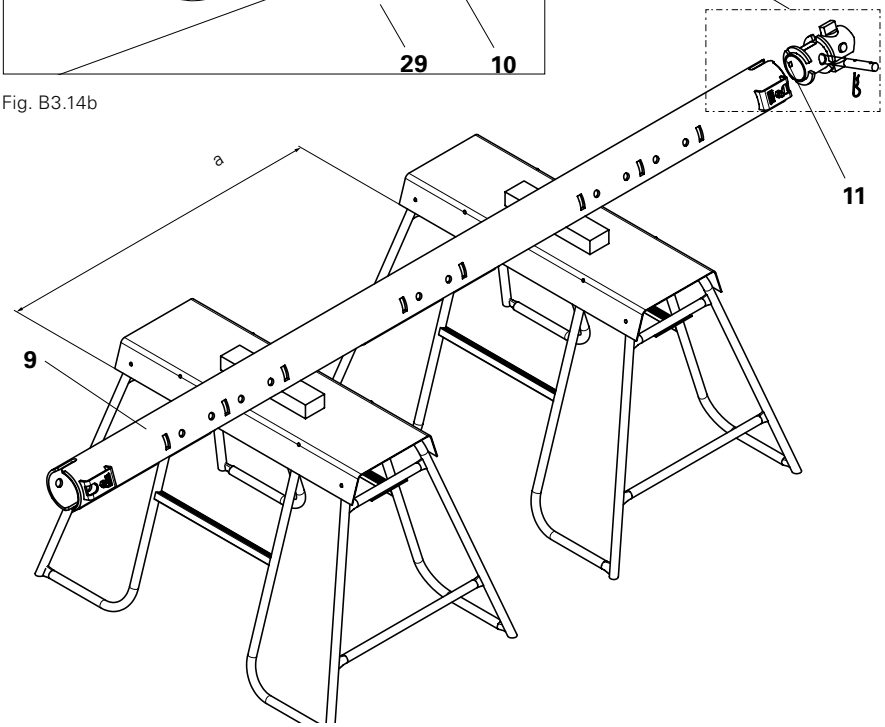


Fig. B3.14

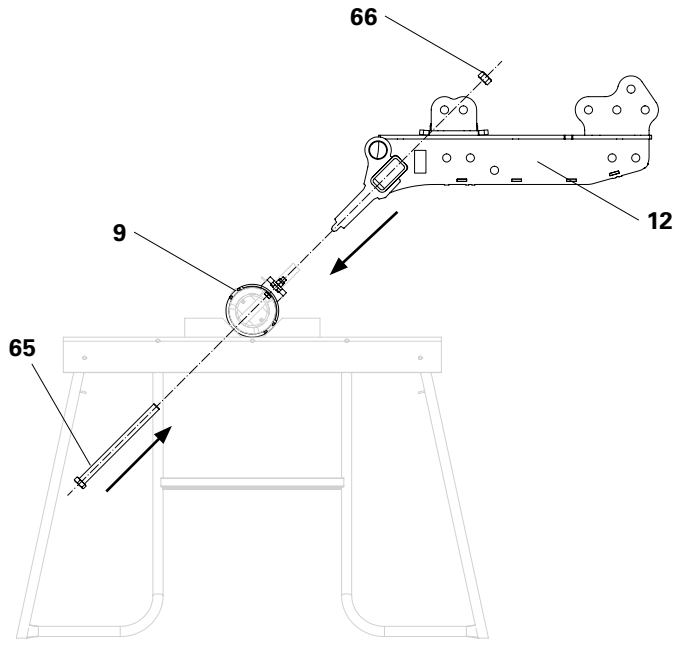


Fig. B3.14a

Fitting the Adjusting Unit VCT to the steel waler vertical profile

Components:

9	Rail Track VCT 300
11	Rail Track Coupler VCT
12	Adjusting Unit VCT
26	Articulated spindle Ø 21 35 - 47
28	Fitting pin Ø 21 x 120
29	Cotter Pin 4/1 ga
50.f	Steel Waler SRU 222 U120

Assembly

1. Insert the Steel Waler SRU (**45**) into the Adjusting Unit VCT (**12**) (see arrow).
   – The beams of the steel waler are on the outside.
   – The Adjusting Unit VCT (**12**) is located in the centre between the beams of the steel waler.
2. Fit the Adjusting Unit VCT (**12**) to holes 1+5 on the Steel Waler SRU (**50.f**) with 2x Fitting Pins Ø21x120mm (**28**) and secure with 2x Cotter Pins 4/1 ga (**29**).
3. Fit additional Adjusting Units VCT (**12**) on the Steel Walers SRU (**50.f**) as described above.

(Fig. B3.15 + Fig. B3.15a)

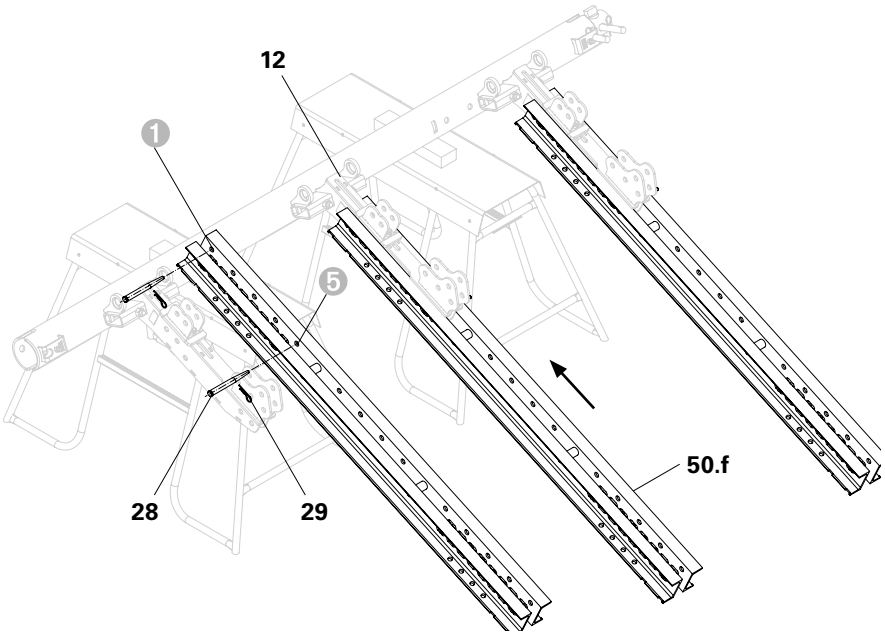


Fig. B3.15

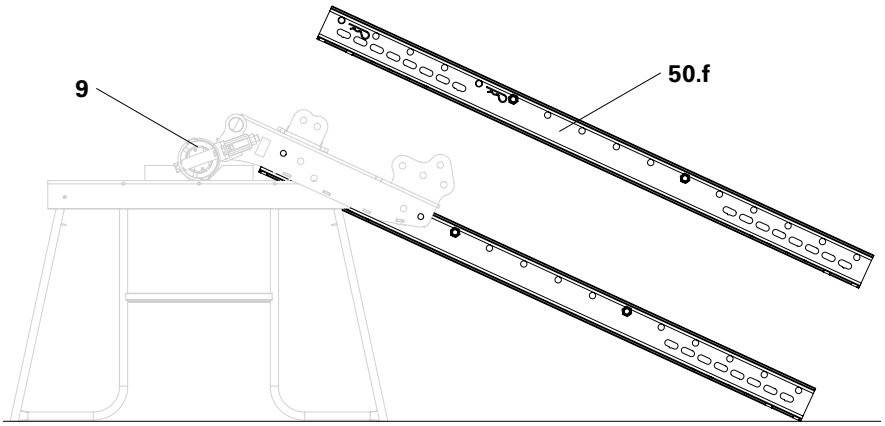


Fig. B3.15a

Fitting the articulated spindle to the adjusting unit

Assembly

1. Insert the articulated spindle Ø 21 35 - 47 (**26**) into the Adjusting Unit VCT (**12**), fit with 2x fitting pins and secure with 2x Cotter Pins 4/1 ga (**29**).

(Fig. B3.16 + Fig. B3.16a)

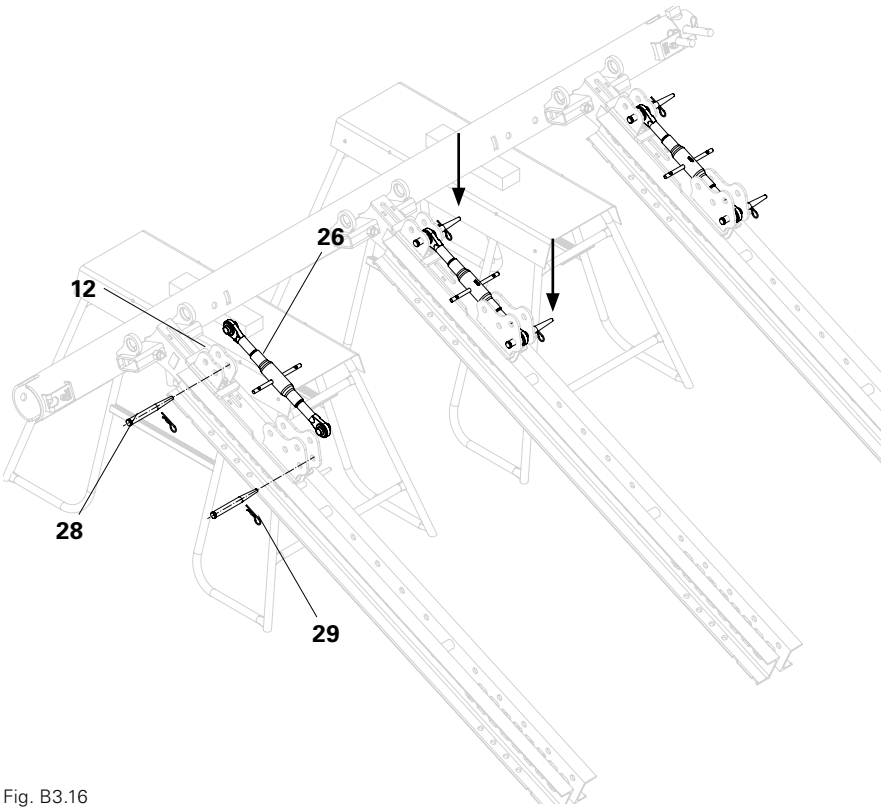


Fig. B3.16

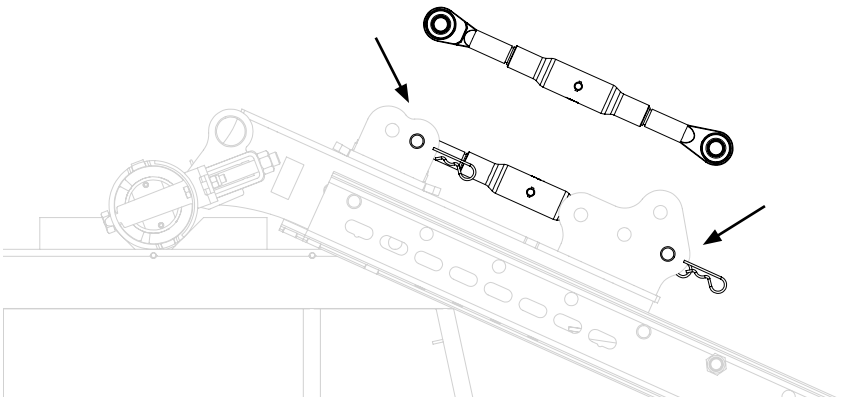


Fig. B3.16a

Mounting the working platform

Assembly area

PERI recommends setting up a level assembly area.

- Stops positioned at right-angles simplify precise and fast pre-assembly of the platform units.
- More information can be provided by PERI on request.

For assembly, a crane or other lifting device as well as a level assembly surface are required.

Preparing for assembly

1. Set down squared timbers of sufficient length and dimension (b), approx. 12 x 12 cm, at distance (a) at the assembly site, based on the requirements of the project.
2. Fit stops onto the approx. 12 x 12 cm squared timbers at the distance (c + d), based on the requirements of the project.
3. Position the Steel Waler SRU 297 (**50.j**) at the stops and align them.

Components:

28	Fitting Pin Ø21x120mm
29	Cotter Pin 4/1 ga
30	Corner Connector SRU VARIOKIT
50.j	Steel Waler SRU 297 U120
56	Girders VT 20K
57	Hook Strap Uni HBU 20-24

Are the squared timbers parallel to each other?

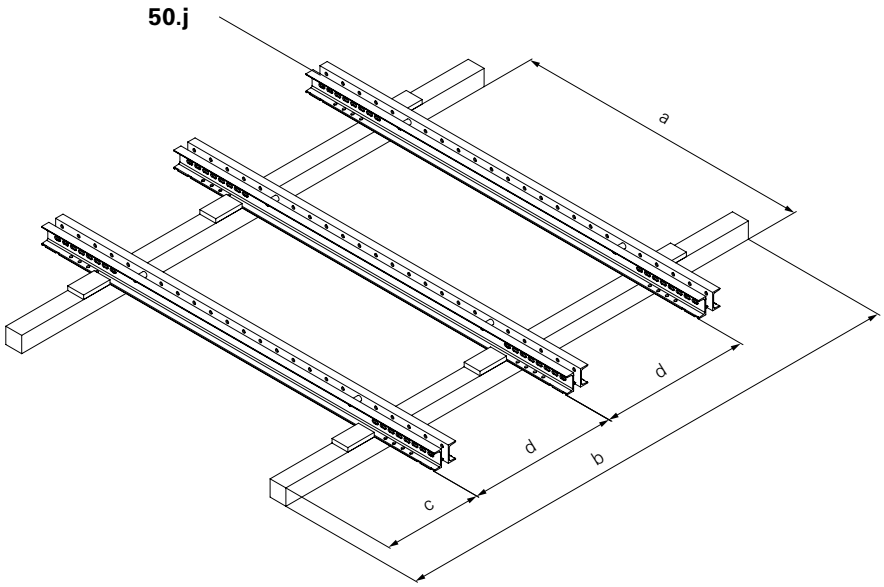


Fig. B3.17

Fitting corner connectors

1. Insert the Corner Connector SRU (**30**) vertically [1] after the spacer into the Steel Waler SRU (**50.j**) and fit with 2x Fitting Pins Ø 21 x 120 (**28**). Secure with 2x cotter pin 4/1 (**29**).
2. Insert the Corner Connector SRU (**30**) horizontally [2] as a bracket for guard-rail posts and lateral protection into the Steel Waler SRU (**50.j**) and fit with 2x Fitting Pins Ø 21 x 120 (**28**). Secure with 2x cotter pin 4/1 (**29**).

(Fig. B3.18 + Fig. B3.18a)

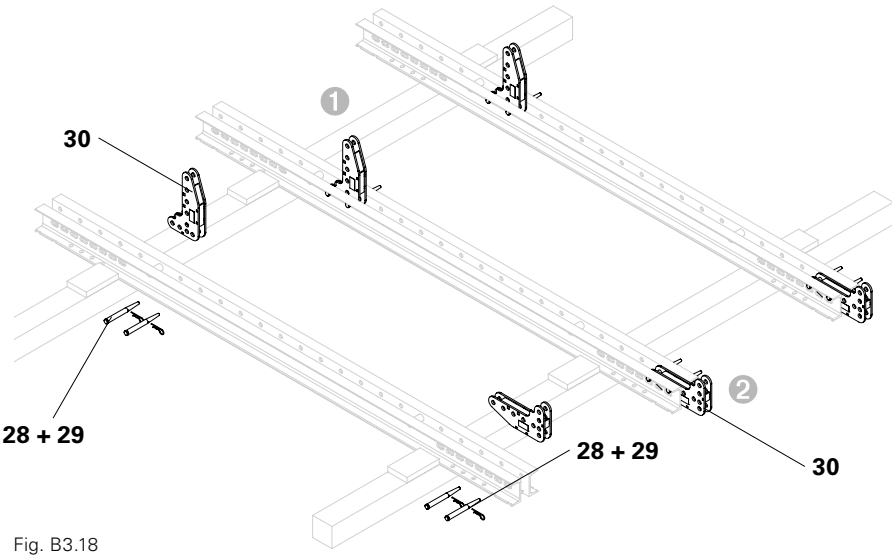


Fig. B3.18

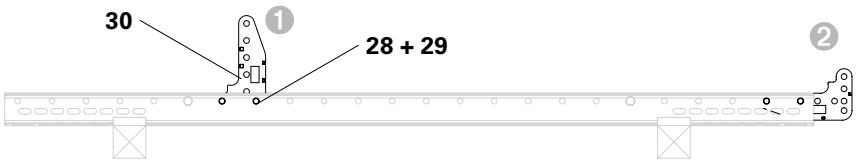


Fig. B3.18a

Mounting the Girders VT 20

1. Place the Girders VT 20K (**56**) on the Steel Walers SRU (**50.j**) based on the requirements of the project.
2. Fasten the Girders VT 20K (**56**) to the Steel Walers SRU (**50.j**) with 3x Hook Straps Uni HBU (**57**). Ensure perpendicularity.

(Fig. B3.19 + Fig. B3.19a)

Check the frame for dimensional accuracy (diagonal) and perpendicularity.

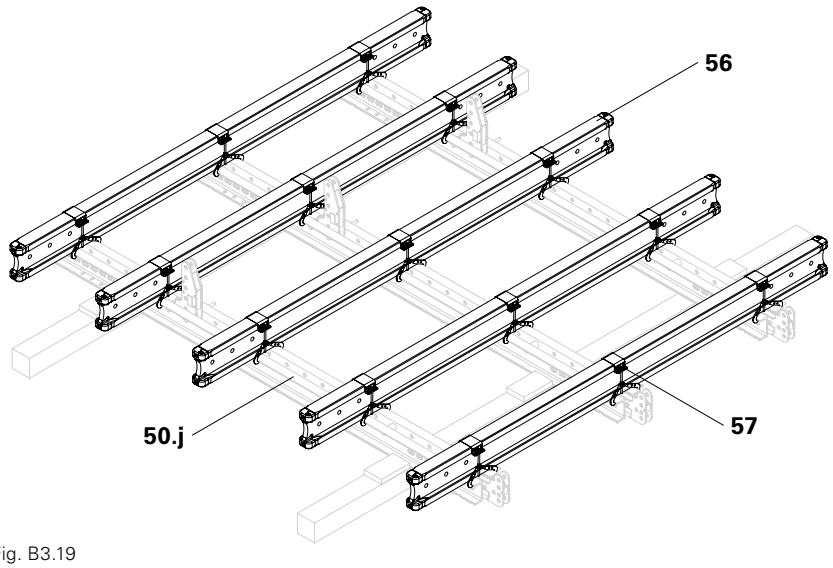


Fig. B3.19

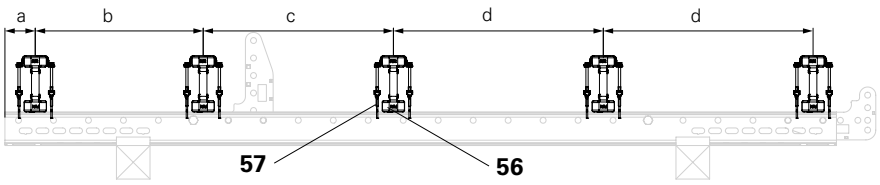


Fig. B3.19a

Connecting the vertical profile of Steel Waler SRU to the working platform

Attach the pre-prepared, rail track unit to the crane (see "Fitting the rail track unit" on page 72).

Components:

9	Rail Track VCT 300
12	Adjusting Unit VCT
28	Fitting Pin Ø21x120mm
29	Cotter Pin 4/1 ga
30	Corner Connector SRU VARIOKIT
50.f	Steel Waler SRU 222 U120

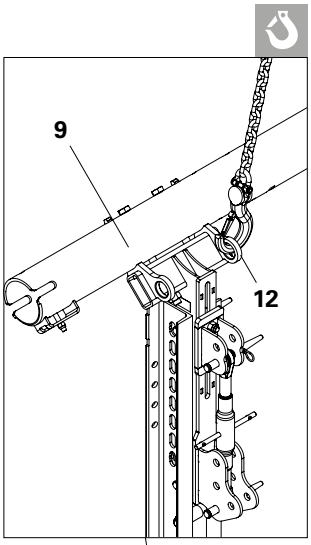


Fig. B3.20a

Assembly

1. Attach the rail track unit to the crane with 2-sling lifting gear.
   Use the attachment points of the Adjusting Unit VCT(**12**) for this purpose.
2. Move the rail track unit over the pre-assembled working platform.

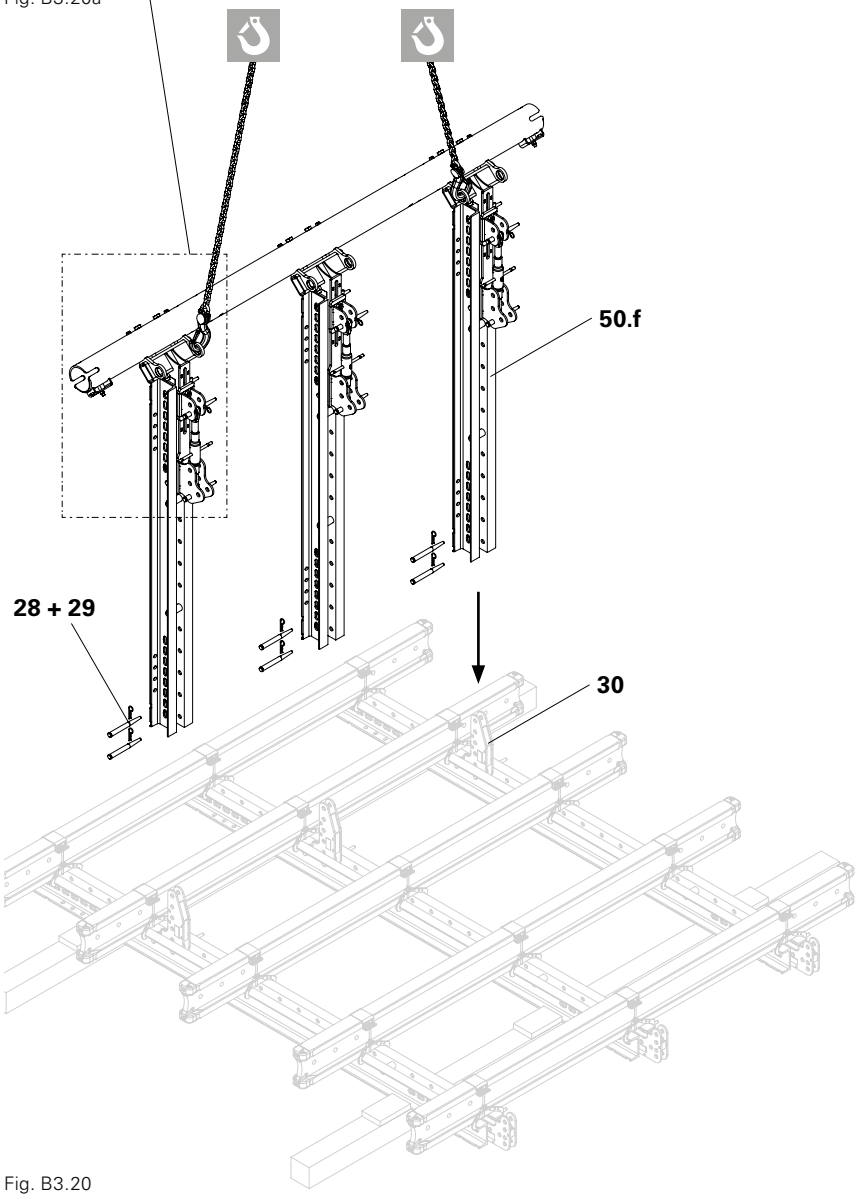


Fig. B3.20

3. Lower the vertical profile of the Steel Waler SRU 222 (**50.f**) onto the Corner Connectors SRU VARIOKIT (**30**) and mount with 2x Fitting Pins Ø21x120 mm in each case (**28**). Secure with 2x cotter pin 4/1 (**29**).
4. Remove the crane lifting gear.

(Fig. B3.20 – Fig. B3.21a)

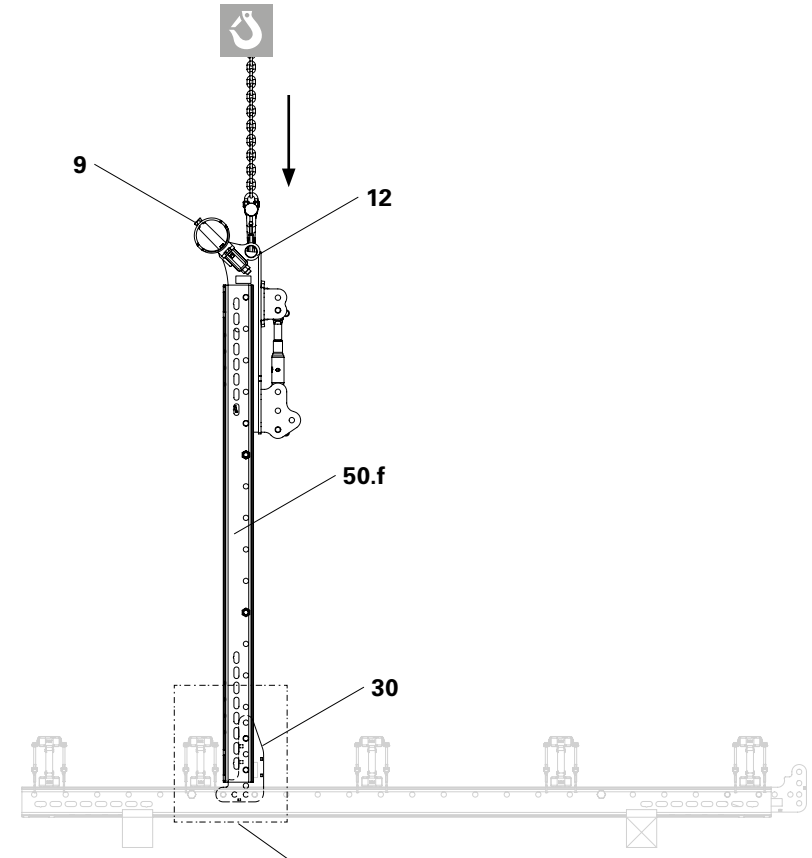


Fig. B3.21

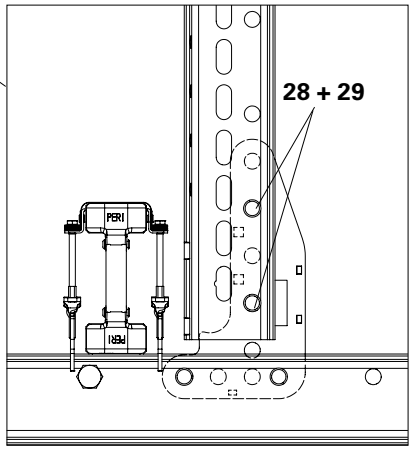


Fig. B3.21a

Fitting the lateral protection

- Dimension lateral protection in accordance with EN 12811.
- Fit lateral protection onto all fall edges.
- Lateral protection boards and toe boards must be fastened to the guardrail posts and/or platform decking with screws.
- Lateral protection is required on all platforms.

Variant for full enclosure

The full enclosure variant results in increased areas exposed to the wind and must be taken into consideration in the project-related static.

Components:

30	Corner Connector SRU VARIOKIT
53	Guardrail Post RCS/SRU 184
53.1	Bolt ISO 4017-M 20 x 100-8.8
53.2	Hex. Nut ISO 7040-M20-8.8
54	Clamp A64 DIN 3570-M12-ga
55	Scaffolding tube 48.3 x 3.2mm
59	HEX NUT ISO 4032-M12-8-ga

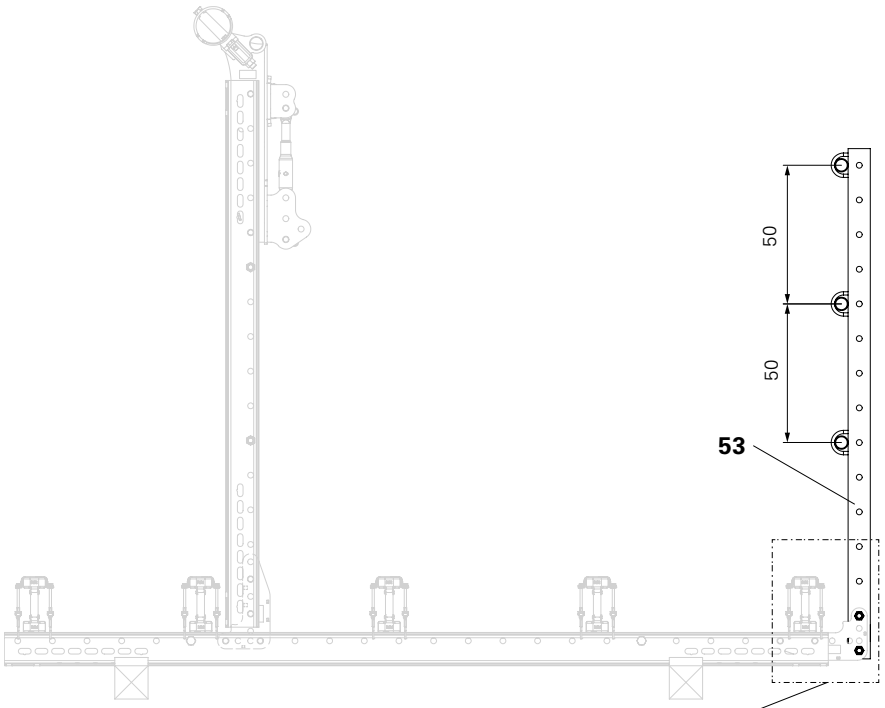


Fig. B3.22

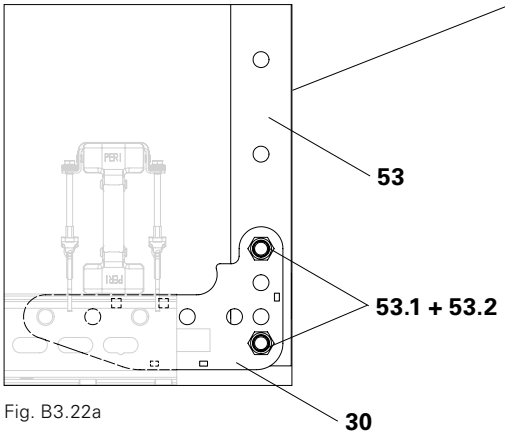


Fig. B3.22a

Installing guardrail posts for lateral protection

Assembly

1. Remove 2x bolts ISO 4070 M20 x 100 (**53.1**) and 2x nuts ISO 7040 M20-8 (**53.2**) from Guardrail Post RCS/SRU 184 (**53**).
2. Fit the bottom holes of Guardrail Post RCS/SRU 184 (**53**) to Corner Connector SRU VARIOKIT (**30**).
3. Fasten the guardrail post onto Corner Connector SRU VARIOKIT (**30**) with 2x bolts ISO 4070 M20 x 100 (**53.1**) and 2x nuts ISO 7040 M20-8 (**53.2**).

(Fig. B3.22 + Fig. B3.22a)

Fitting the lateral protection

- Use scaffolding tubes with a length of 290 cm as lateral protection, or mount scaffolding tubes with a length of 300 cm in a staggered arrangement in terms of height.

Assembly

1. Screw bracket A64 DIN 3570 M12 (**54**) loosely to the top of the guardrail post (**53**), starting with nuts M 12-8 (**59**).
2. Attach brackets to neighbouring guardrail posts at the same height.
3. Insert the Scaffold Tube Steel Ø 48.3 x 3.2 (**55**) through bracket A64 DIN 3570 M12 (**54**) and align it correctly.
4. Tighten the nuts (**59**) on the inside of Guardrail Post RCS/SRU 184 (**53**).

→ The scaffolding tube is fixed in place

5. Attach further brackets (**54**) to the guardrail posts (**53**) below the first one and fit with scaffolding tubes as described above.
   Observe the maximum distances between scaffolding tubes.

(Fig. B3.22 – Fig. B3.23a)

Are all the scaffolding tubes screwed in tight?

For scaffolding tube lengths of l = 3 m, offset the height of the neighbouring scaffolding tube (**55**).

→ Ensure that the scaffolding tubes don't collide.

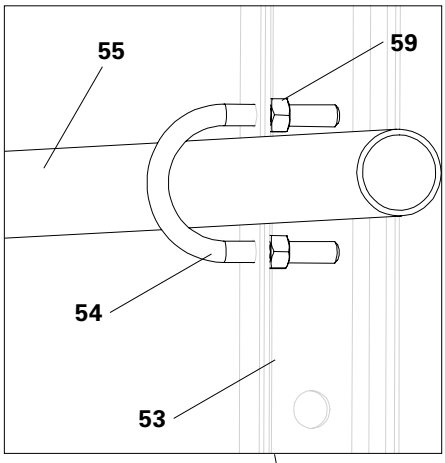


Fig. B3.23a

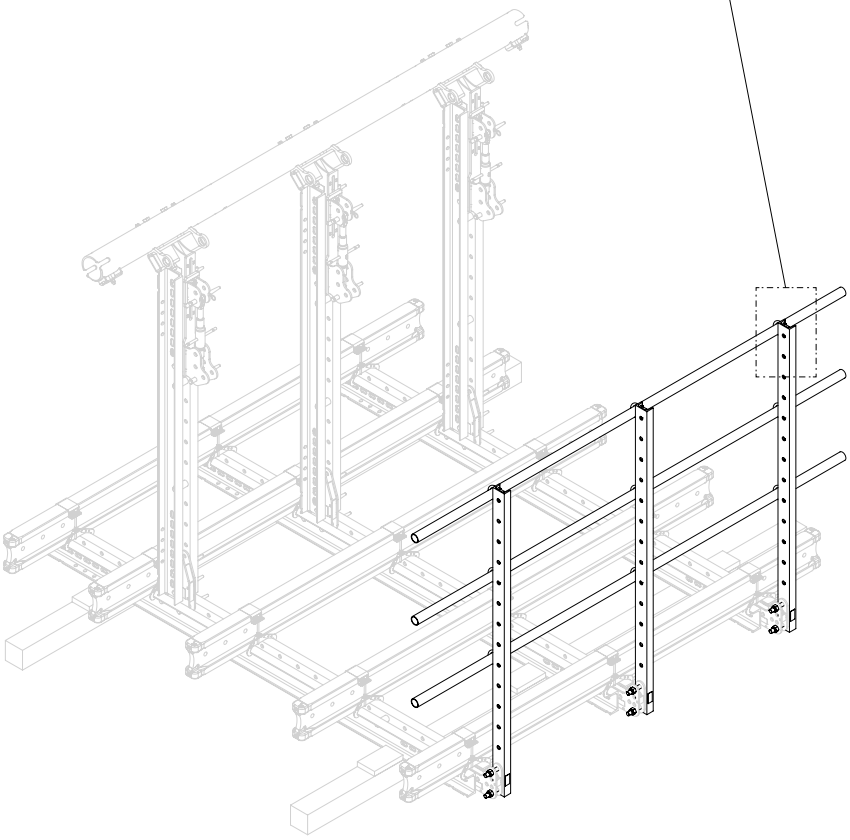


Fig. B3.23

Fitting the platform decking for the working platform

PERI recommends separating the decks of platform decking for vertical structures. This allows recesses to be implemented more easily.

Components

50.j Steel Waler SRU 297 U120
56 Girders VT 20K
57 Hook Strap Uni HBU 20-24
70 Toe Board 15 x 3
72 Wood Screw 6x40 SK-TX30 HPI
73 Reinforced angle bracket 90°
74 Wood Screw 6x80 SK-TX30
75 Platform decking

Installing the platform decking

1. Saw platform decking (**75**) A, B, C, D, for example multi-layer plywood sheets, to suit the project-specific substructure.
2. Recess the platform decking around vertical superstructures. Cut recesses to suit the requirements of the project.
3. Align platform decking (**75**) A, B, C and screw tightly to Girders VT 20K (**56**) with wood screws 6x80 SK-TX30 (**74**).

(Fig. B3.24 + Fig. B3.24a)

Fitting the toe board

1. Fasten a 15 x 3 toe board (**70**) to the deck (**75**) using reinforced angle brackets 90° (**73**) spaced out at intervals of approx. 100 cm, securing each of them with 8x Wood Screws 6x40 SK-TX30 HPI (**72**).

(Fig. B3.24 + Fig. B3.24a)

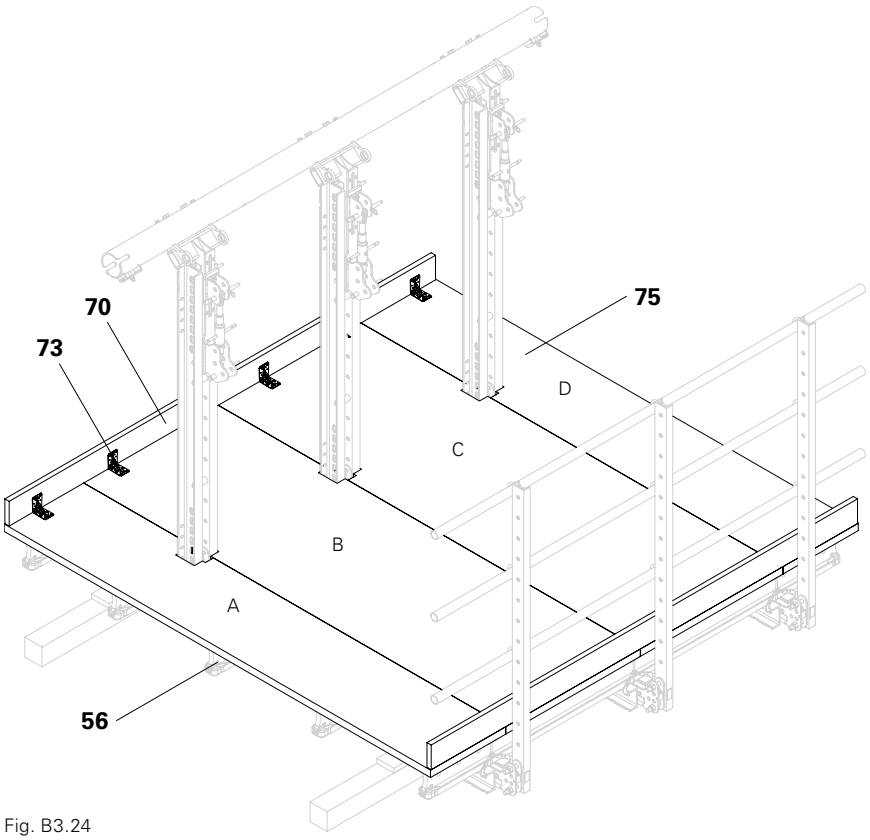


Fig. B3.24

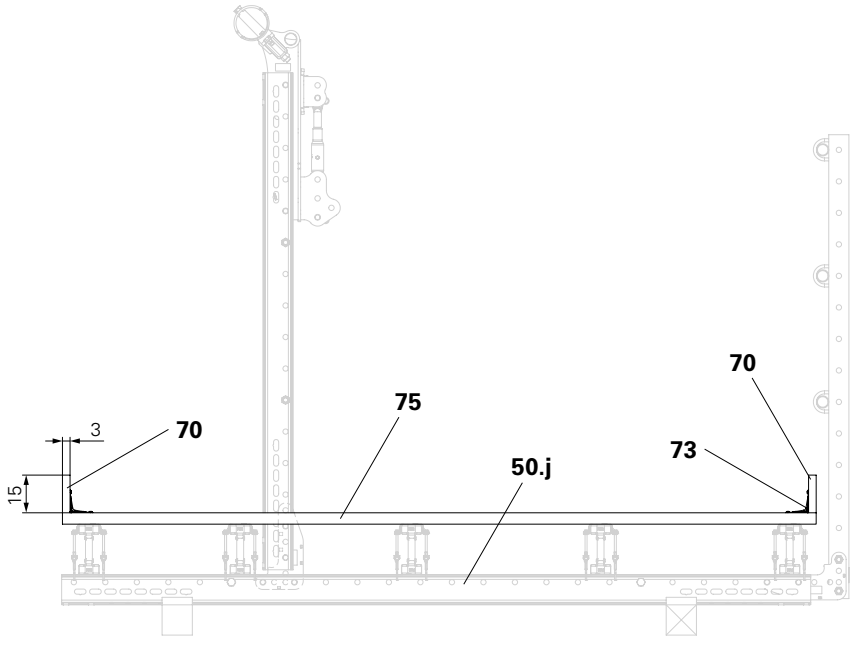


Fig. B3.24a

Completing the Working Platform set-up process

Components

13 Angle Connector SRU VCT
26 Articulated spindle Ø 21 35 - 47
28 Fitting Pin Ø21x120 mm
29 Cotter Pin 4/1 ga
50.f Steel Waler SRU 222 U120
50.h Steel Waler SRU 247 U120

Fitting the Angle Connector SRU VCT

1. Fit the Angle Connector SRU VCT (**13**) to the vertical Steel Waler SRU (**50.f**) with Fitting Pin Ø21x120 mm (**28**). Secure with Cotter Pin 4/1 ga (**29**). (Fig. B3.25 + Fig. B3.25a)
2. Fit the articulated spindle Ø 21 35 - 47 (**26**) to the Angle Connector SRU VCT (**13**) with Fitting Pin Ø21x120 mm (**28**). Secure with Cotter Pin 4/1 ga (**29**).
3. Fit the articulated spindle Ø 21 35 - 47 (**26**) to the vertical Steel Waler SRU (**50.f**) with Fitting Pin Ø21x120 mm (**28**). Secure with Cotter Pin 4/1 ga (**29**). (Fig. B3.25 + Fig. B3.25a)
4. Fit additional Angle Connectors SRU VCT (**13**) in the manner described above.

- The Angle Connector SRU VCT (**13**) with the roller unit is supported at right angles to the steel body of the bridge.
- Fine adjustment can be carried out later by turning the Articulated Spindle Ø 21 35-47 (**26**).

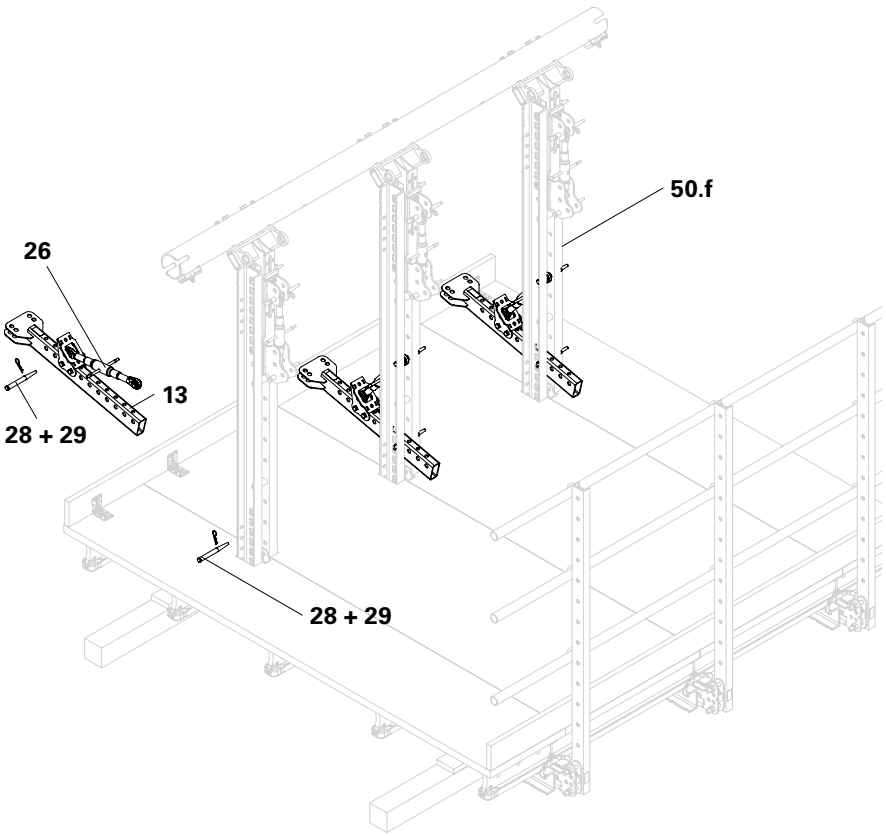


Fig. B3.25

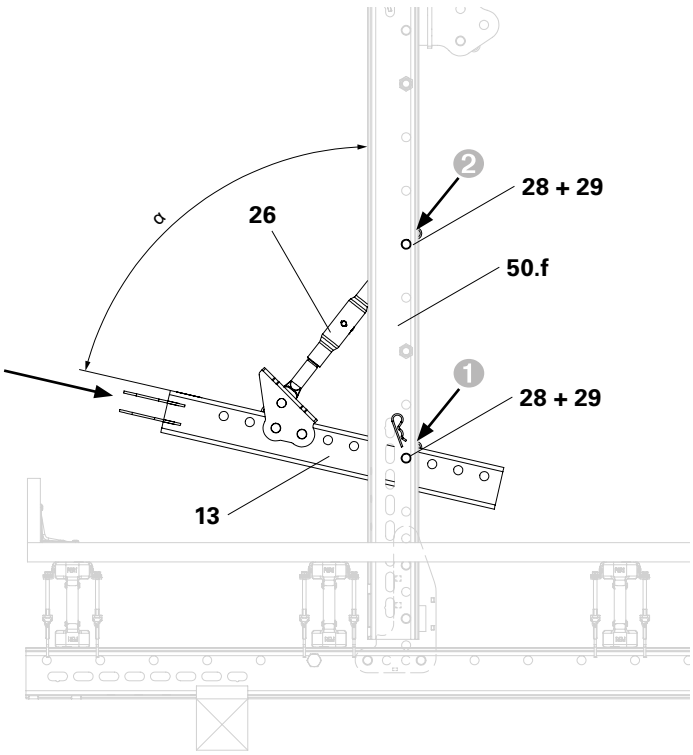


Fig. B3.25a

Installing the horizontal Steel Waler SRU

Components

13 Angle Connector SRU VCT
14 Roller Unit Socket VCT
14.1 G-Hook
14.2 Adjusting nut
15 Roller Unit VCT
28 Fitting Pin Ø21x120 mm
29 Cotter Pin 4/1 ga
50.h Steel Waler SRU 247 U120
81 Adj. Base Plate UJB 38-36/17
82 Spindle Counterplate VARIOKIT

Assembly

1. Slide the Steel Waler SRU 247 U120 (**50.h**) onto the Angle Connectors SRU VCT (**13**).
2. Position the steel waler as follows.
   – Fit the Steel Waler SRU and Angle Connector SRU VCT with 2x Fitting Pins Ø21x120 mm (**28**). Secure with 2x cotter pin 4/1 (**29**).
3. Fit the remaining Angle Connectors SRU VCT (**13**) as using 2x Fitting Pins Ø21x120 mm (**28**) as described above.
   Secure with 2x cotter pin 4/1 (**29**).

(Fig. B3.26 + Fig. B3.26a)

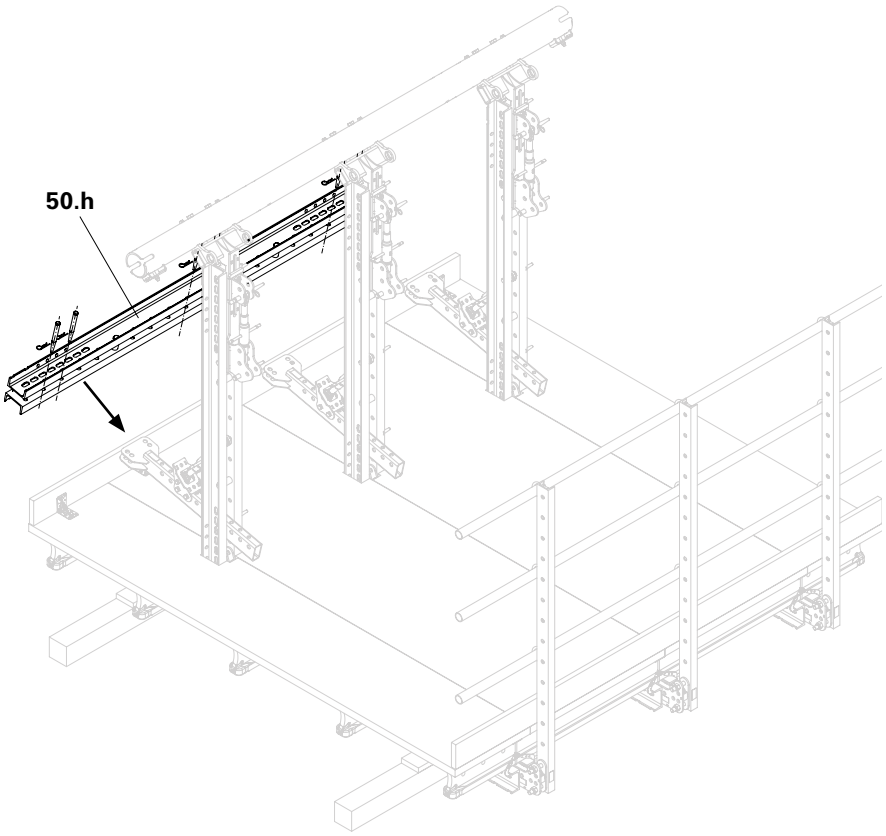


Fig. B3.26

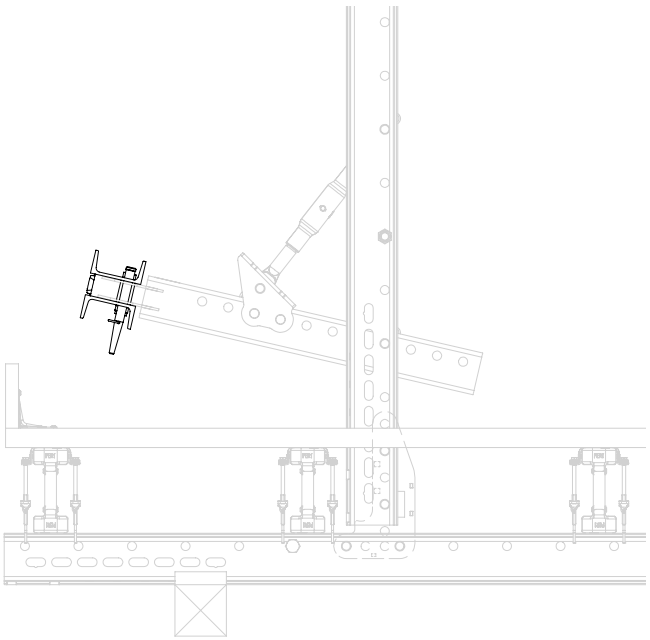


Fig. B3.26a

Fitting the Roller Unit VCT and Adj. Base Plate UJB Ø38 mm 50/30

Use Roller Unit VCT (**15**) for the concreting load. Verification must be carried out on a project-specific basis. Additional support may be required using an Adj.Base Plate UJB Ø38 mm 50/30 (**81**).

Assembly

1. Push the Roller Unit Socket VCT (**14**) into the Steel Waler SRU (**47**) directly alongside the Angle Connector SRU VCT (**13**) and fit with 2x Fitting Pins Ø 21 x 120 (**28**).
   Secure with 2x cotter pin 4/1 (**29**).
2. Release the G-hook (**14.1**) and slide the Roller Unit VCT (**15**) into the Roller Unit Socket VCT (**14**).
3. Insert the G-Hook (**14.1**) into the visible hole and push it up to the stop.
   → The inner tube of the Roller Unit VCT (**15**) is fixed in place.

(Fig. B3.27a)

4. Turn the adjusting nut (**14.2**) on the handle to the desired dimension.

(Fig. B3.27a)

Installation variant with Adj. Base Plates as the pressure point during concreting

1. Insert 3x Adj. Base Plate UJB 38-36/17 (**81**) into the Angle Connectors SRU VCT (**13**) with 3x Spindle Counterplates VARIOKIT (**82**). The base plate is used to support the load and rests against the steel trough.

(Fig. B3.27 + Fig. B3.27a)

→ The Roller Unit VCT is in contact with the steel trough in drive mode.

The distance between the formwork unit and the steel trough can be adjusted using the Roller Unit VCT (**15**) Adj. Base Plates (**81**).

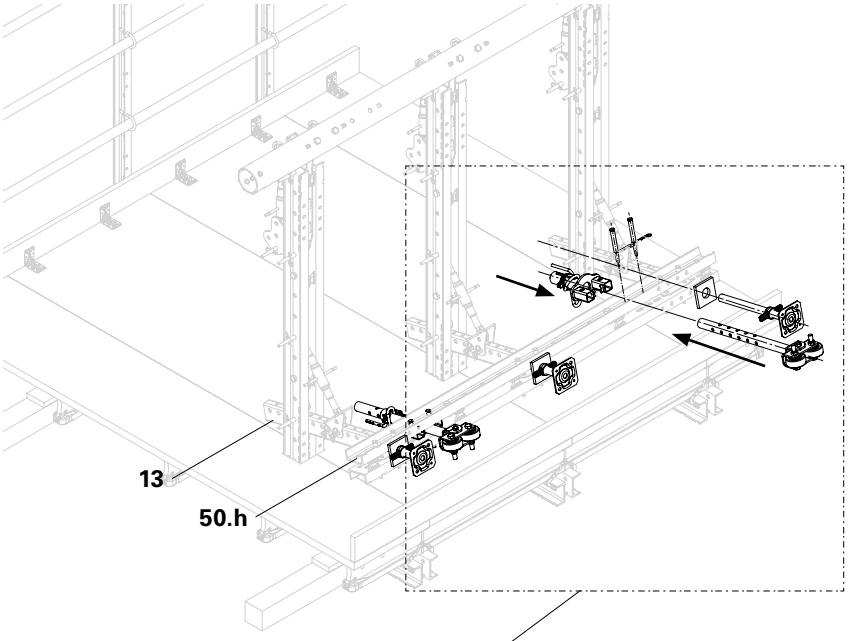


Fig. B3.27

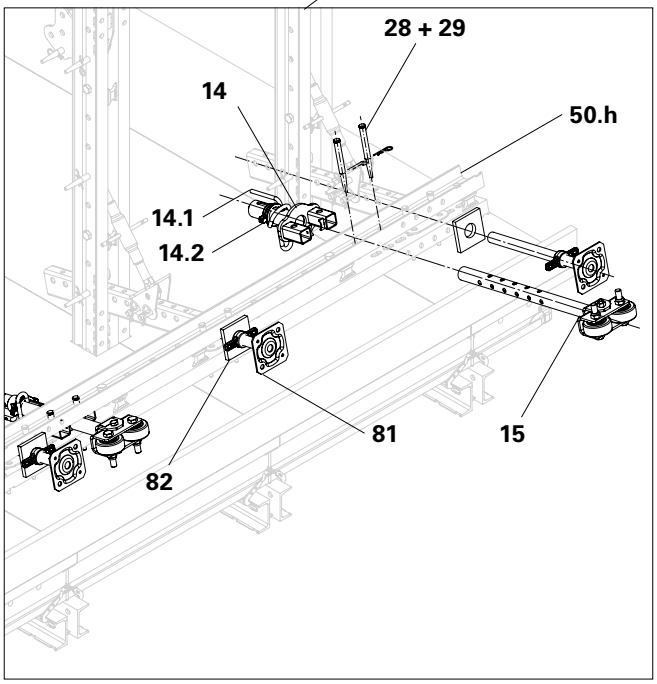


Fig. B3.27a

When moving by crane, secure the Adj. Base Plate UJB 38-36/17 (**81**) to prevent it from falling out.

Fitting the heavy-duty spindle to the working platform

Components

28 Fitting Pin Ø21x120 mm
29 Cotter Pin 4/1 ga
36 Heavy Duty Spindle SLS 200-300
50.f Steel Waler SRU 222 U120
55 Scaffold Tube Steel Ø 48.3 x 3.2

Assembly

1. Place the heavy Duty Spindle SLS 200-300 (**36**) on the scaffolding tube (**55**) of the lateral protection.
2. Fit the Heavy Duty Spindle SLS 200-300 (**36**) on the Steel Waler SRU 222 U120 (**50.f**) with Fitting Pin Ø21x120 mm (**28**). Secure with Cotter Pin 4/1 ga (**29**).

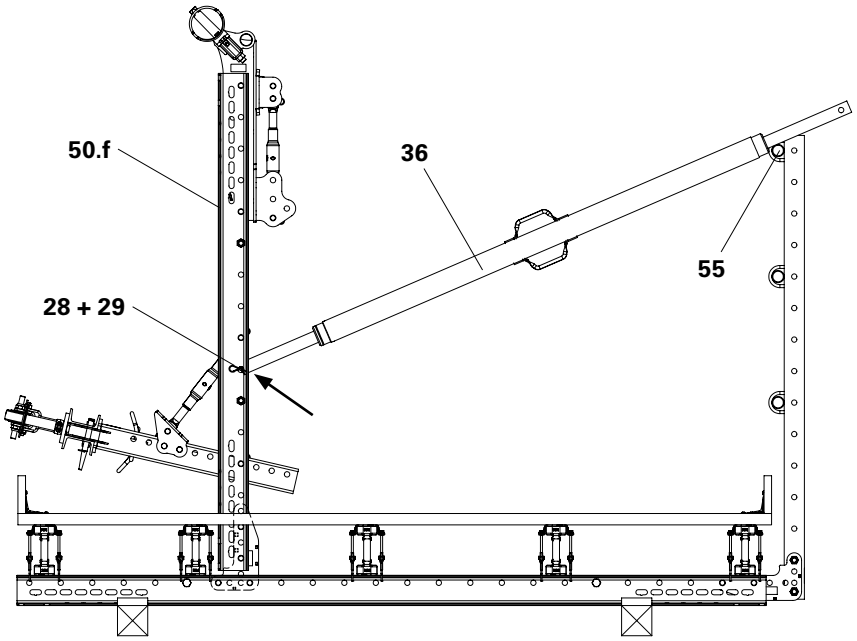


Fig. B3.28

Once the cantilevered formwork assembly (**39**) and the working platform assembly (**38**) processes have been completed, they can be mounted on the formwork unit, see “B4 Installing the formwork unit” on page 88.

Attachment points for crane lifting gear

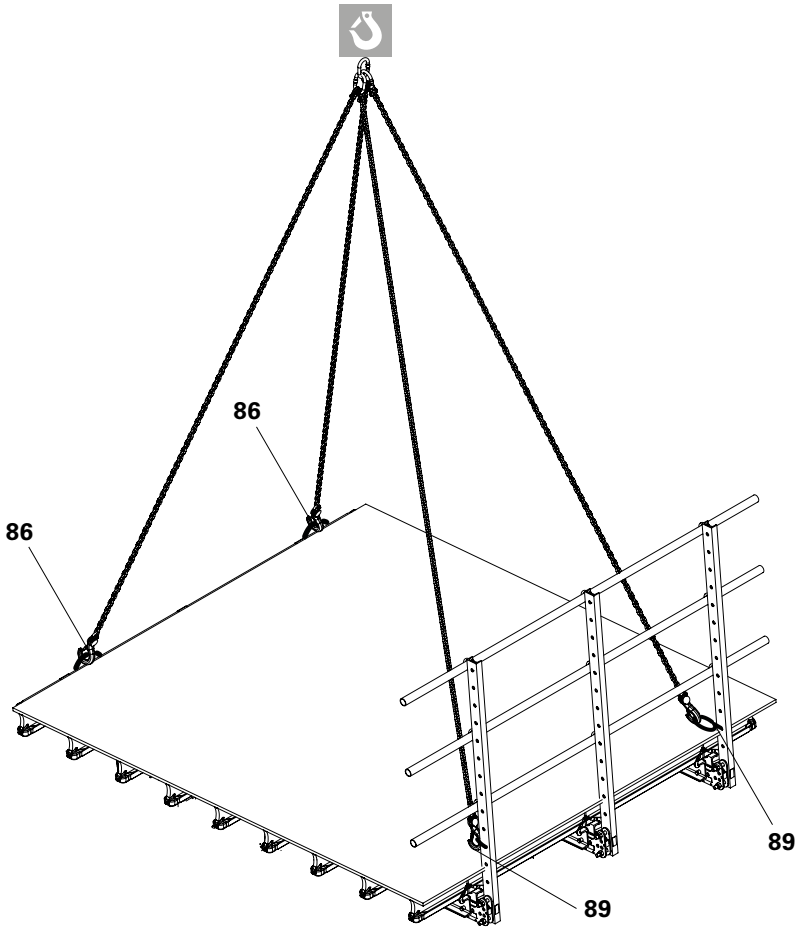
- Be mindful of the actual formwork weight.
- Take the max. crane sling angle into consideration.
- Use appropriate 4-sling lifting gear.
- The lifting equipment must have sufficient load-bearing capacity.

Components:

86 Round sling
89 Crane Eye-2 CB 240 0.7t

Attachment

1. Attach the 4-sling lifting gear with a round sling (**86**) and Crane Eye-2 CB 240 0.7t (**89**).



Fitting the cantilevered formwork on the working platform

Danger

When attaching and removing the 4-sling lifting gear.
⇒ From a safe position, or
⇒ use PPE.
There is the possibility of the cantilevered formwork (**39**) falling down during transport!
This can lead to serious injuries or even death.
⇒ Do not stand under the suspended load.
⇒ Do not carry out any work under suspended loads.
When attaching the cantilevered formwork to the working platform, the formwork unit may tilt.
This can lead to serious injuries or even death.
⇒ Project-specific proof of stability is required.
⇒ Secure the formwork unit to prevent it from tipping.

Warning

Risk of crushing when connecting the platforms. This can lead to serious irreversible injuries.
⇒ Use PPE, safety helmet, gloves, safety shoes.
⇒ Prevent loads from swinging.
⇒ Keep your extremities away from the pinch points.

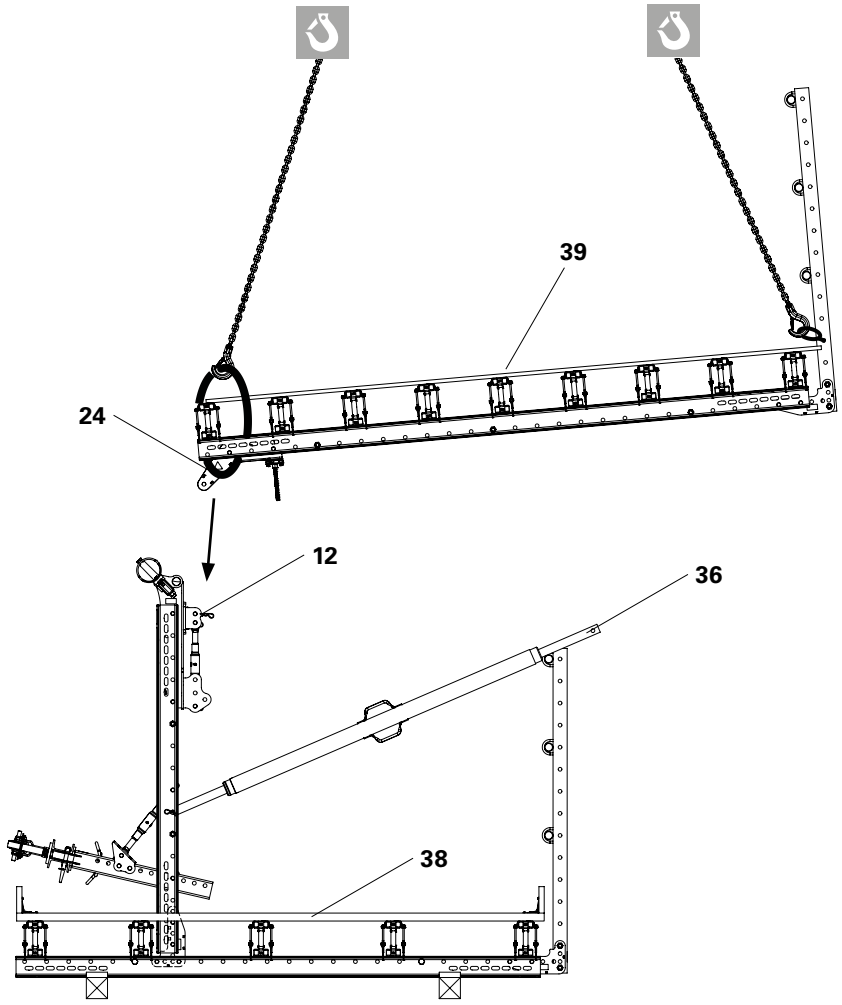


Fig. B4.01

- Prerequisite:
  The cantilevered formwork and working platform assemblies are preassembled and ready for assembly.
- For assembly, a crane or other lifting device as well as a level assembly surface are required.

Components:

12 Adjusting Unit VCT
24 Striking Lever VCT
28 Fitting pin Ø 21 x 120
29 Cotter Pin 4/1 ga
36 Heavy Duty Spindle SLS 200-300
38 Working platform (assembly)
39 Cantilevered formwork (assembly)
86 Round sling
89 Crane Eye-2 CB 240 0.7t

Assembly

1. Attach the pre-assembled cantilevered formwork (**39**) to the attachment points on the crane and position it on the adjusting unit (**12**).
2. Fit the Striking Lever VCT (**24**) to the Adjusting Unit VCT (**12**) with Fitting Pin Ø21x120 mm (**28**).
   Secure with Cotter Pin 4/1 ga (**29**).

(Fig. B4.01 + Fig. B4.02)

3. Swivel the Heavy-Duty Spindle SLS upwards (**36**) and fit it in the specified position with Fitting Pin Ø21x120 mm (**28**).
   Secure with Cotter Pin 4/1 ga (**29**).

(Fig. B4.02)

4. Remove the crane lifting gear, remove the round slings (**86**).
5. Unhook and remove the crane lifting gear from the guardrail post from a safe position. If necessary, remove Crane Eye-2 CB 240 0.7t (**89**).

(Fig. B4.02)

- Have all fitting pins been inserted and secured with cotter pins?

- Ensure that the fitting direction for the Heavy-Duty Spindles SLS (**36**) is the same. For example, the hole in the internal thread is pointing downwards.

(Fig. B4.02)

- The coupled formwork unit is now ready for installation on the bridge support.

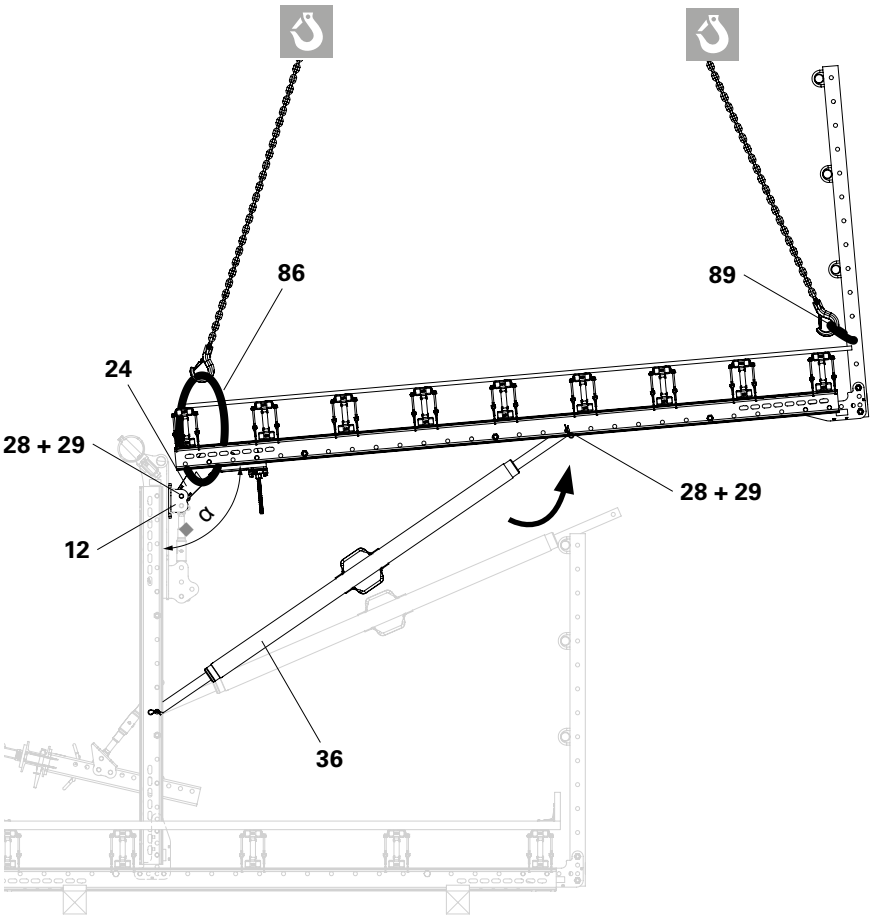


Fig. B4.02

Setting up the operating platform for the leading and finishing platform

PERI recommends setting up a level assembly area.

Assembling the operating platform from PERI UP FLEX components

- The operating platform must be designed specifically for the project.
- The operating platform is assembled as an auxiliary structure and is lifted onto the suspended leading or finishing platform and bolted onto it.
- Use components from the PERI UP Scaffolding Kit as required. See PERI UP Scaffolding Kit.
- The structure of the finishing platform corresponds to that of the leading platform, only in a mirrored form.
- All spindles must be secured with Handle Locking UJS (**83**), see "Movement by crane" on page 93.

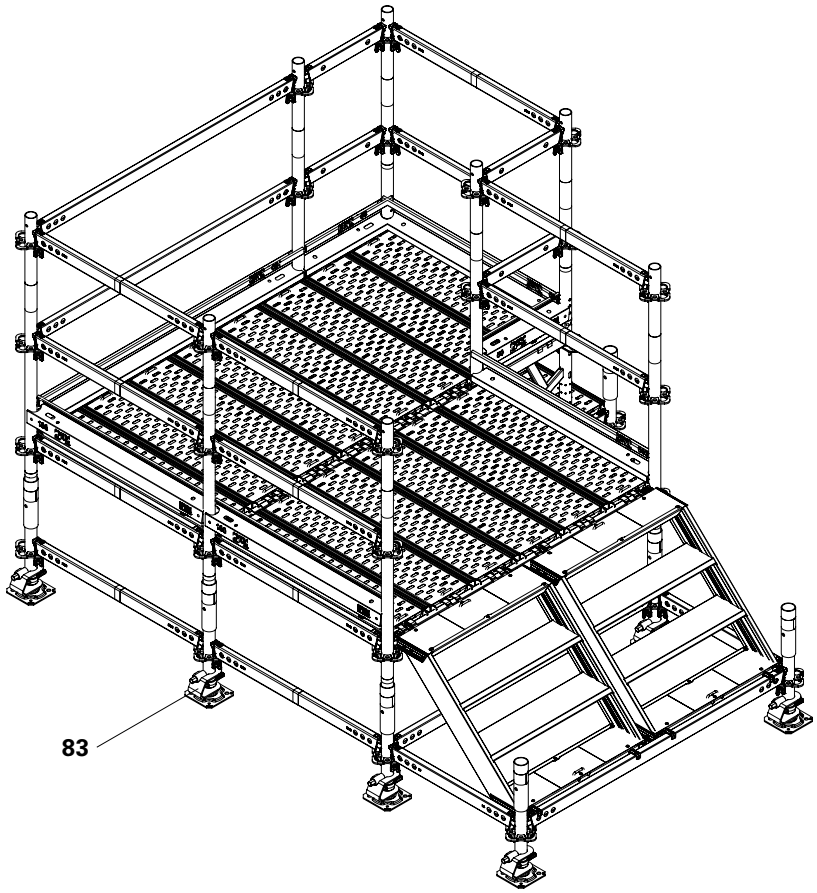


Fig. B5.01

The PERI UP Flex Operating Platform and the access to the cantilevered formwork is assembled using items from the PERI UP Scaffolding Kit as required.

- Standards UVR-2
- Horizontal Ledger UH-2
- Safety Entry Gate UPS 75
- Ladder tower (for components, see PERI UP Scaffolding Kit).

Means of descent on the operating platform

Components:

69 Toeboard Steel UPY
76 Horizontal Ledger UH-2
83 Handle Locking UJS
91 Steel Deck UDG-2 25x75
92 Steel Deck UDG-2 25x100
93 Console Bracket ECM 50
94 Base Standard UVB 25

Means of descent during assembly

- Having a means of descent to a lower assembly surface (contact area) enables work to be carried out ergonomically beneath the concreted cantilever arm.

Procedure

1. Unlock, release and set aside the two upper Steel Decks UDG-2 25x100 (**92**) from the Console Bracket ECM 50 (**93**).
2. Remove and set aside the front horizontal ledger (**76**) and the toe board (**69**).
3. It is now possible to descend to the lower Steel Decks UDG-2 25x100 (**92**).

Do not fit the toe boards (**69**) until the operating platform and the ladder tower have been raised, as they could be damaged by the crane chains.

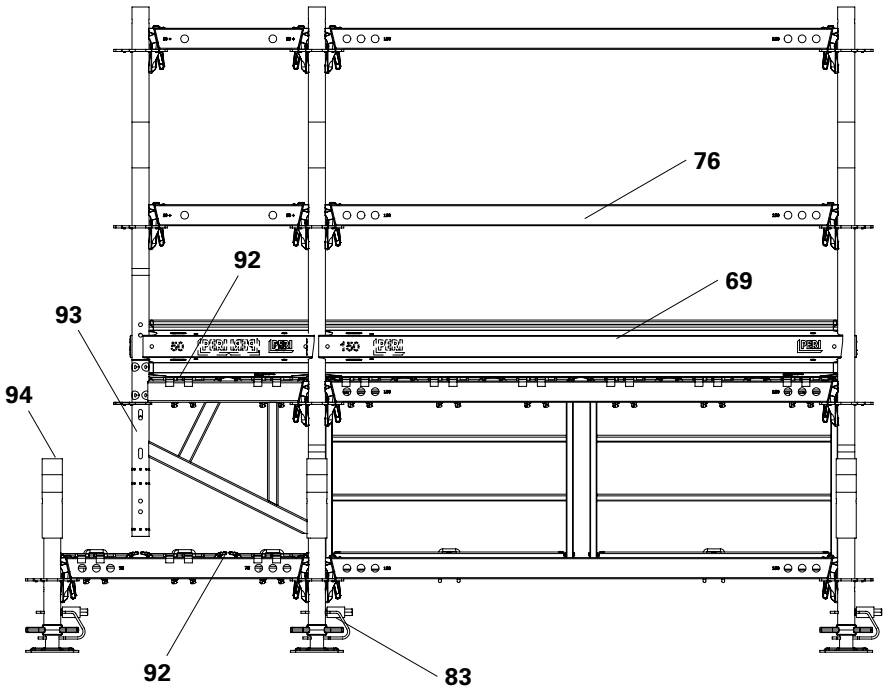


Fig. B5.01a

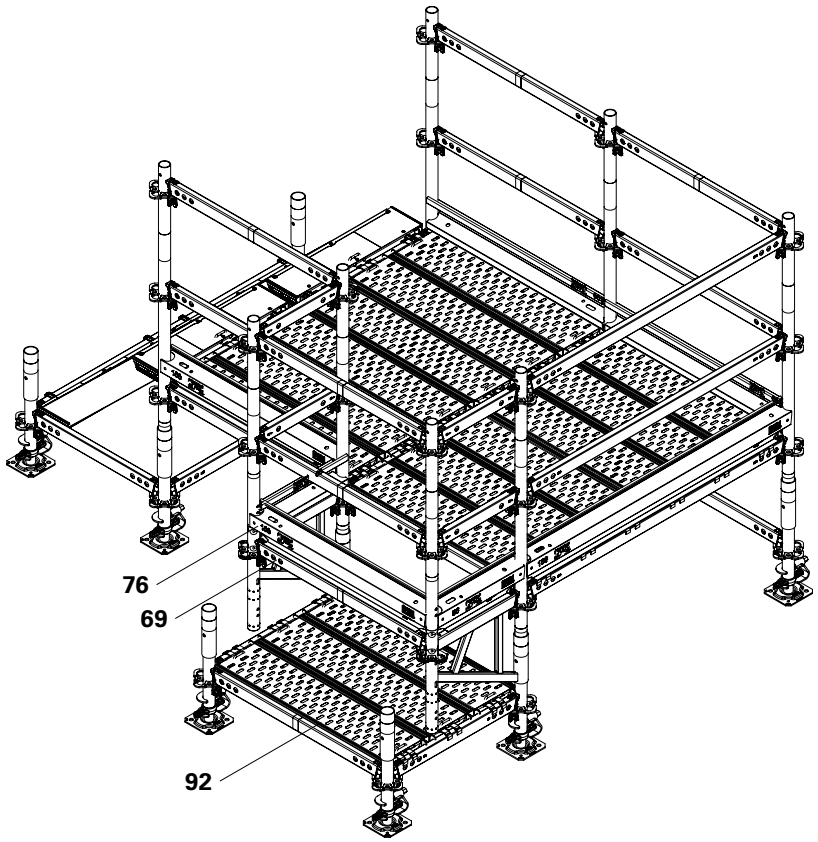


Fig. B5.01b

Fitting the hydraulic pump on the operating platform

Components:

76	Horizontal Ledger UH-2
103	Hydraulic Pump RCS MAX
103.2	Suspension hook
115	Tension belt

Assembly

1. Attach the Hydraulic Pump RCS MAX (**103**) to the crane by fitting 2-sling lifting gear at the attachment points and lift it over the operating platform.
(Fig. B5.02 + Fig. B5.02a)
2. Set the Hydraulic Pump RCS MAX (**103**) down on the upper Horizontal Ledger UH-2 (**76**) with the suspension hook (**103.2**) and attach it.
3. Unhook the crane hook and remove the 2-sling lifting gear and crane.
4. Attach the Hydraulic Pump RCS MAX (**103**) to the lower Horizontal Ledger UH-2 (**76**) using the tension belt (**115**).
(Fig. B5.02 + Fig. B5.02a)

As an alternative to the Hydraulic Pump RCS MAX (**103**), the Hydraulic Pump RCS 4 x 190/380 - 460 V (article no. 109766) can be used (note: pressure is limited to 190 bar in this case).

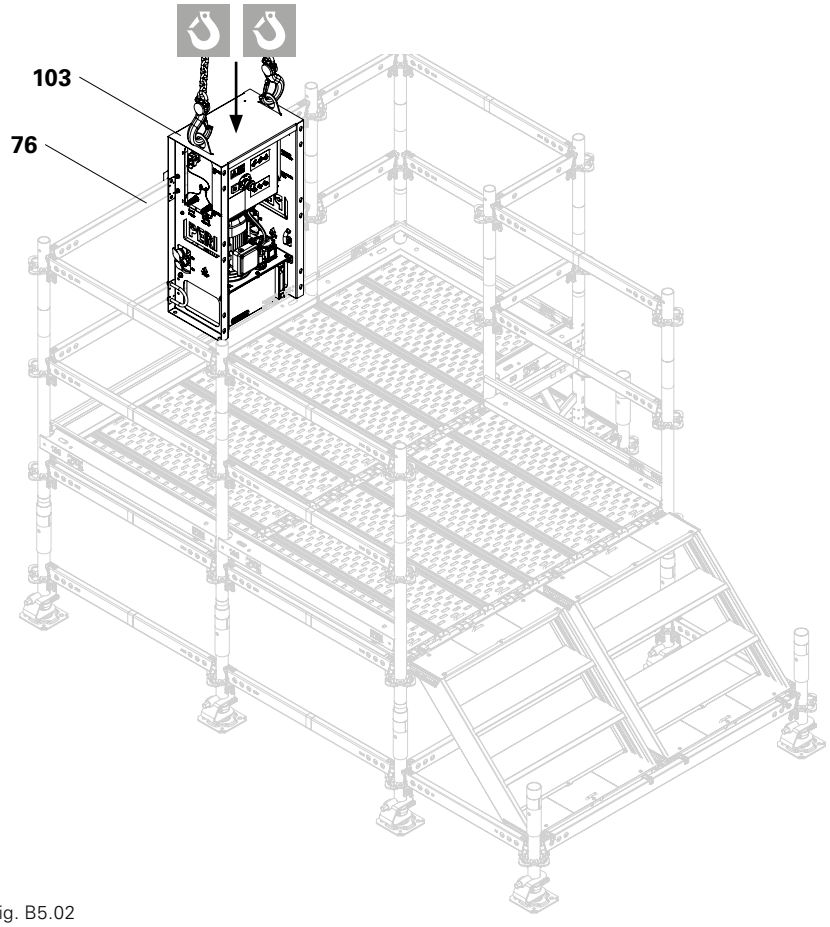


Fig. B5.02

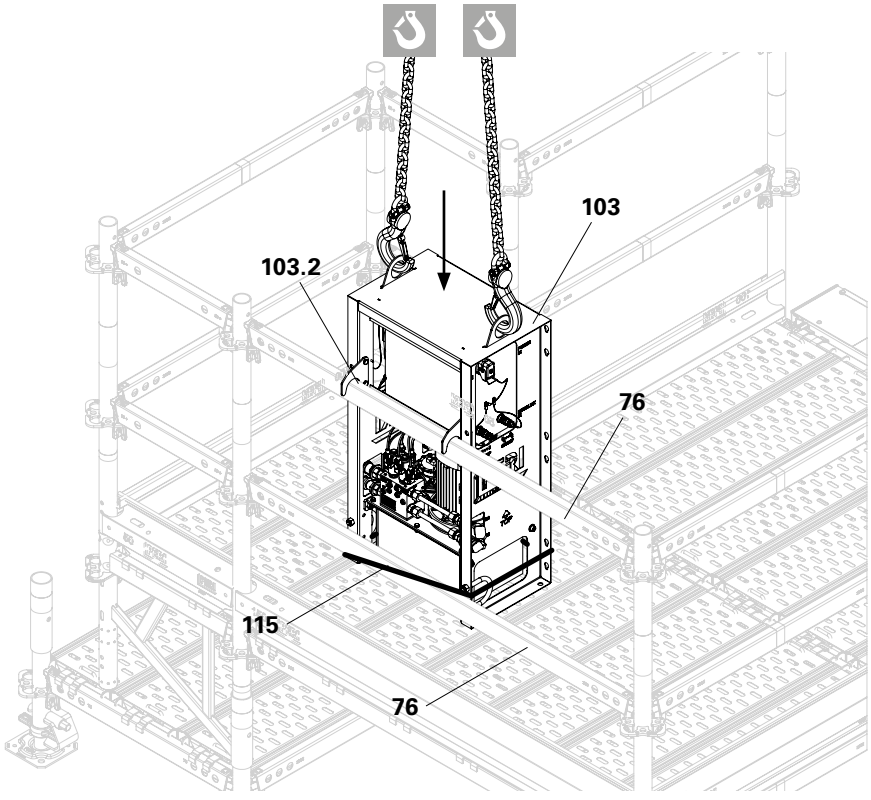


Fig. B5.02a

Movement by crane

Spindle locking is required if, for example, the Adj. Base Plates have to be secured against falling out to enable movement by crane.

Spindle locking is only suitable for movements carried out by a crane. Maximum permissible tensile force Z = 1.5 kN

Components:

81 Adj. Base Plate UJB 38-36/17
81.1 Clamping nut
83 Handle Locking UJS
83.1 Screw
94 Base Standard UVB 25
94.1 Hole

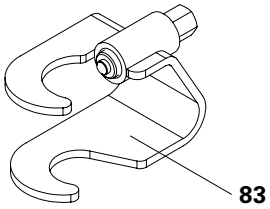


Fig. B5.03

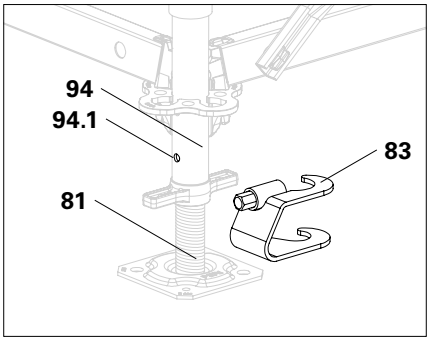


Fig. B5.03a

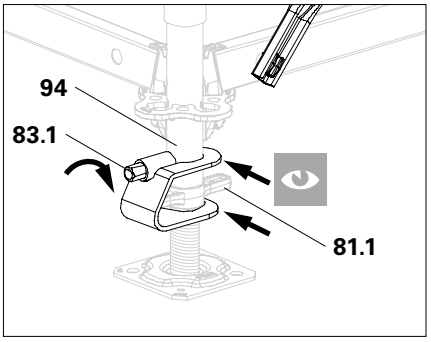


Fig. B5.03b

Handle Locking UJS

- A vertical with a stake-out hole, e.g. Base Standard UVB or Standard UVR, UVH, is required for assembly.
- The clamping nut remains rotatable, the Adj. Base Plate thus remains adjustable.

Assembly

1. Place the Handle Locking UJS (**83**) onto the Adj. Base Plate (**81**) and the base standard from the side. The clamping nut (**81.1**) must be inside the Handle Locking UJS.

(Fig. B5.03a)

2. Tighten the spindle locking with the screw (**83.1**) in the hole of the vertical (**94.1**).

(Fig. B5.03b)

- Have all spindles been secured with Handle Locking UJS (**83**)?

Pre-assembling the ladder tower for the leading and finishing platform

Ladder tower

- The ladder tower provides access to the formwork level above.
- The ladder tower must be designed for the specific needs of the project.
- The ladder tower is fitted with a ladder before use.

Assembly structure

1. Assemble the ladder tower with Safety Entry Gate UPS 75 according to specifications using components from the PERI UP Scaffolding Kit. See PERI UP Scaffolding Kit - Core components.
2. Fit Ladder Connector UAM-S or (**79**) on the horizontal ledger (**76**).

(Fig. B5.04)

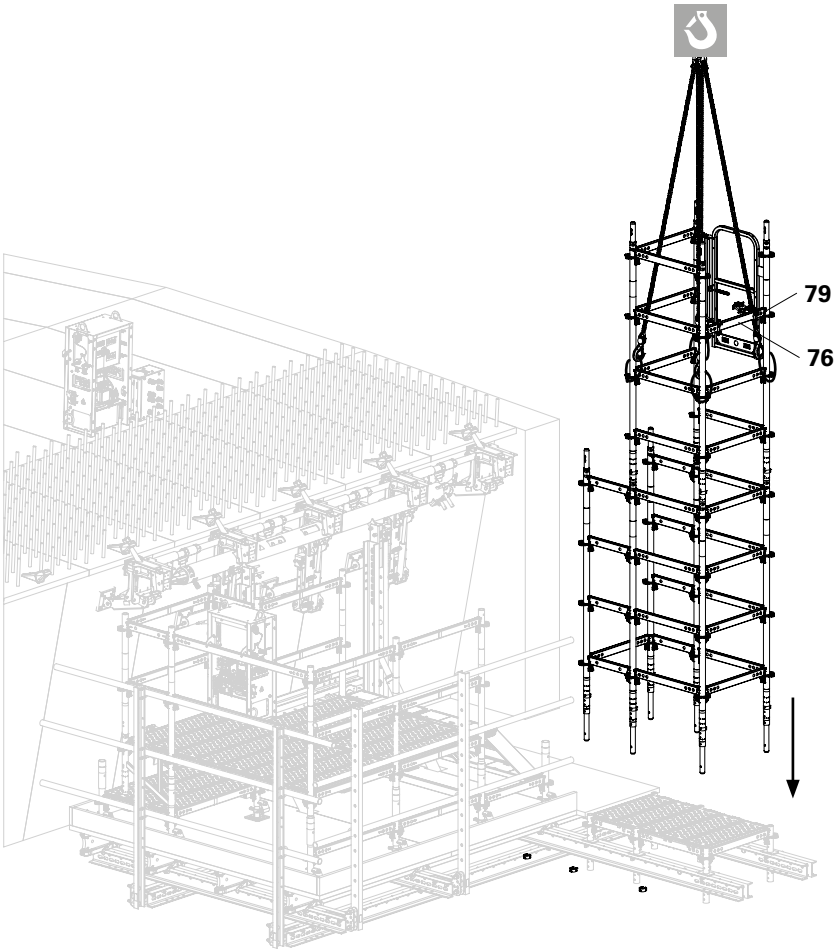


Fig. B5.04

PERI recommends checking the pre-assembled ladder towers for the leading and finishing platforms at ground level for accuracy of fit.

Checking for accuracy of fit

1. Lift the pre-assembled ladder towers onto the leading and finishing platforms on the ground and place them in position.
   Check for accuracy of fit.
2. If the spindles of the ladder towers are not aligned with the VARIOKIT UVA Base Standards in the leading or finishing platform, determine the cause and ensure an accurate fit.
3. Put the ladder towers for the leading and finishing platforms into temporary storage.

- Are the ladder towers aligned with the relevant leading and finishing platforms?
- Do they fit accurately?
- Are the ladder towers labelled and assignable?

Head bracing for anchor bracket

Head bracing for anchor brackets

- Head Bracing VCT (**17/18/19**) is required for the welded Anchor Bracket VCT M30 (**3**) to absorb and transfer forces.
- The Head Bracing VCT (**17/18/19**) is pre-assembled with the head bracing (**20**), see "Preparing head bracing" on page 31.

Components

3	Anchor Bracket VCT M30
5	Suspension Head VCT
17	Head Bracing VCT 100
18	Head Bracing VCT 125
19	Head Bracing VCT 150
20	Spindle Head Bracing VCT
20.1	Nut Head Bracing VCT
21	Face Spanner VCT
29	Cotter Pin 4/1 ga
32	Bolt Ø 20 x 98

Assembly

1. Fit the bottom hole of the Suspension Head VCT (**5**) with bolt Ø 20 x 98 (**32**) (see arrow). Secure with Cotter Pin 4/1 ga (**29**).
2. Fit the pre-prepared Head Bracing VCT (**17/18/19**) with the fork opening into bolt Ø 20 x 98 (**32**) in the Suspension Head VTC (**5**).

(Fig. B5.05)

3. Swivel the Head Bracing VCT (**17/18/19**) upwards and fit Suspension Head VCT (**5**) with bolt Ø 20 x 98 (**32**). Secure with Cotter Pin 4/1 ga (**29**).

(Fig. B5.06 + Fig. B5.07)

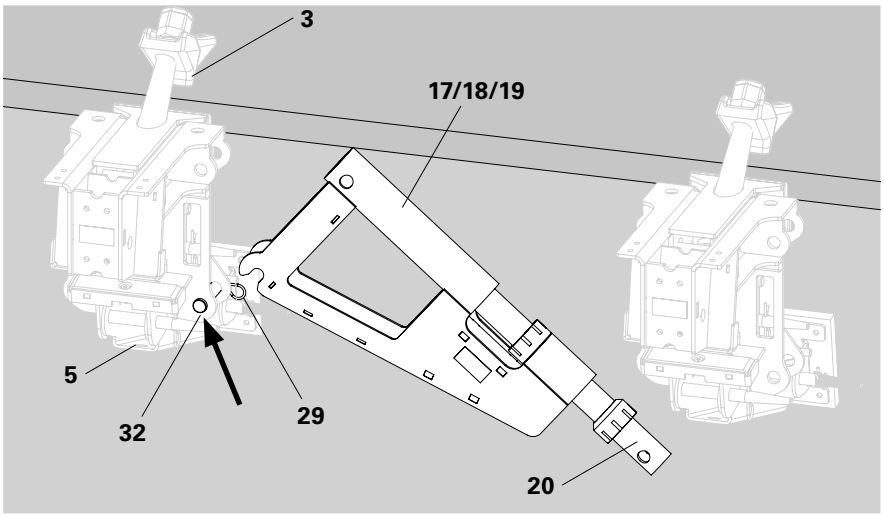


Fig. B5.05

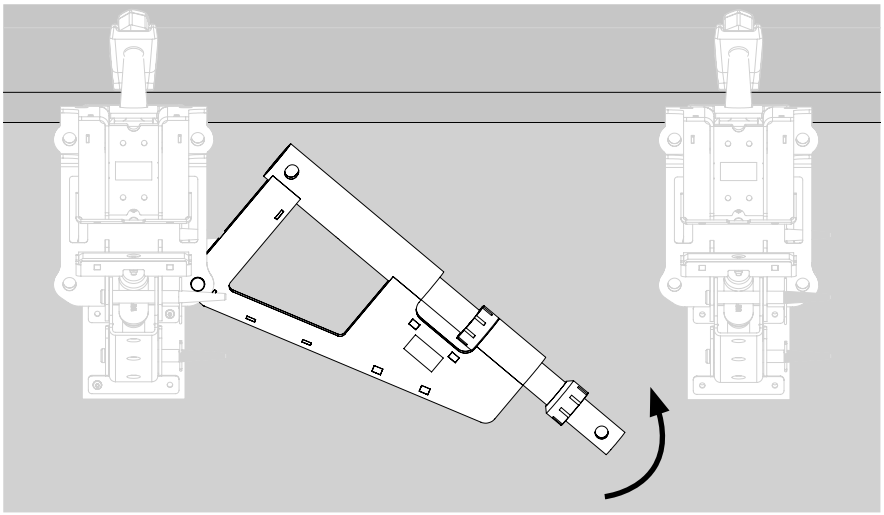


Fig. B5.06

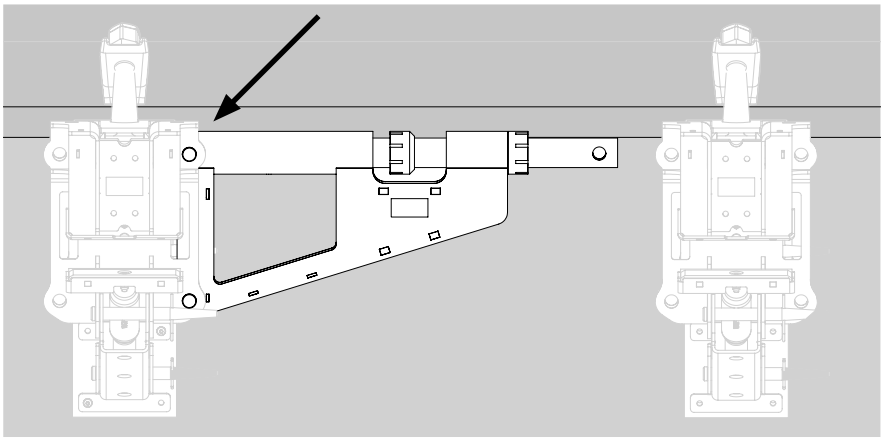


Fig. B5.07

4. Unscrew the Spindle Head Bracing VCT (**20**) up to the next Suspension Head VCT (**5**), shift it and fit it with bolt Ø 20 x 98 (**32**).
   Secure with Cotter Pin 4/1 ga (**29**).
(Fig. B6.01)
5. Apply slight tension to the head bracing using the spindle and nut.
6. Tighten both nuts for Head Bracing VCT (**20.1**).
(Fig. B6.02)

→ A rigid connection is established for the Suspension Heads VCT (**5**).

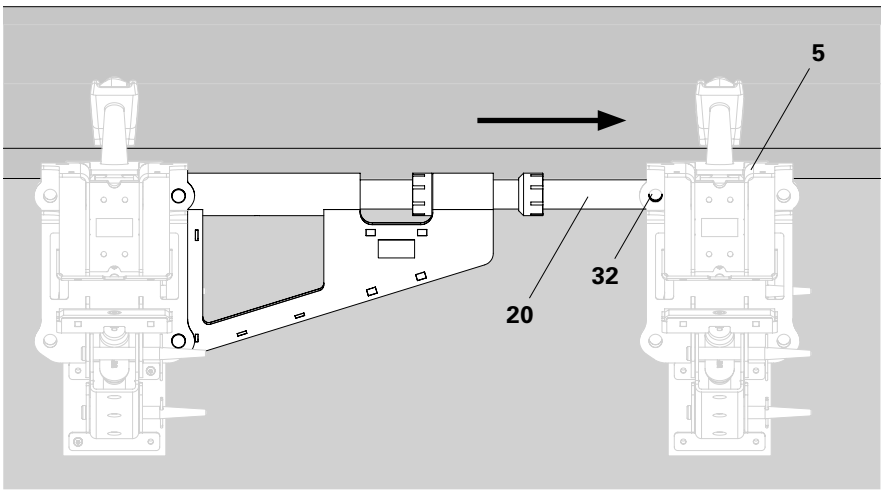


Fig. B6.01

- The position and alignment of the suspension heads must not be changed by tightening the nuts in an uncontrolled manner.
- Tighten the nuts with the Face Spanner VCT (**21**).
- Removing the spring cotter from below facilitates the subsequent disassembly process.

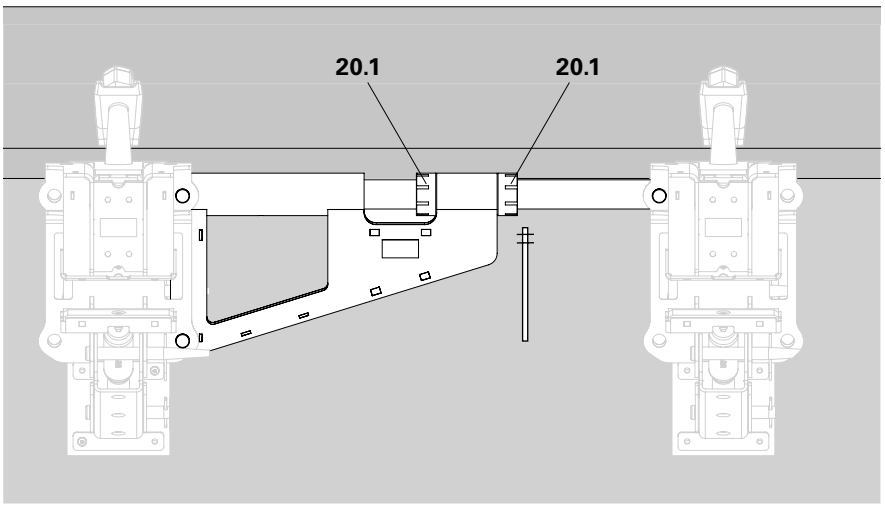


Fig. B6.02

- Are all bolts secured with cotter pins?
- Are all the nuts of the Head Bracing VCT (**20.1**) tightened?
- Has a basic level of tension been established between the Suspension Heads VCT (**5**)?

Fitting the roller unit for moving along the bottom chord flange

- When moving along the bottom chord of the steel structure, the Roller Unit VCT (**15**) can be adjusted precisely on the bottom chord flange (**43**) using the Parallel Connector VARIOKIT (**31**).

(Fig. B7.01a + Fig. B7.03)

- The Roller Unit VCT (**15**) is mounted in such a way that the rollers can move vertically on the flange.
- The number of roller units per platform is determined on a project-specific basis according to static specifications.
- The roller unit is mounted on the vertical Steel Waler SRU (**50.f**) at the height of the bottom chord flange (**47**). For adjustment information, see "Parallel Connector VARIOKIT" on page 37.

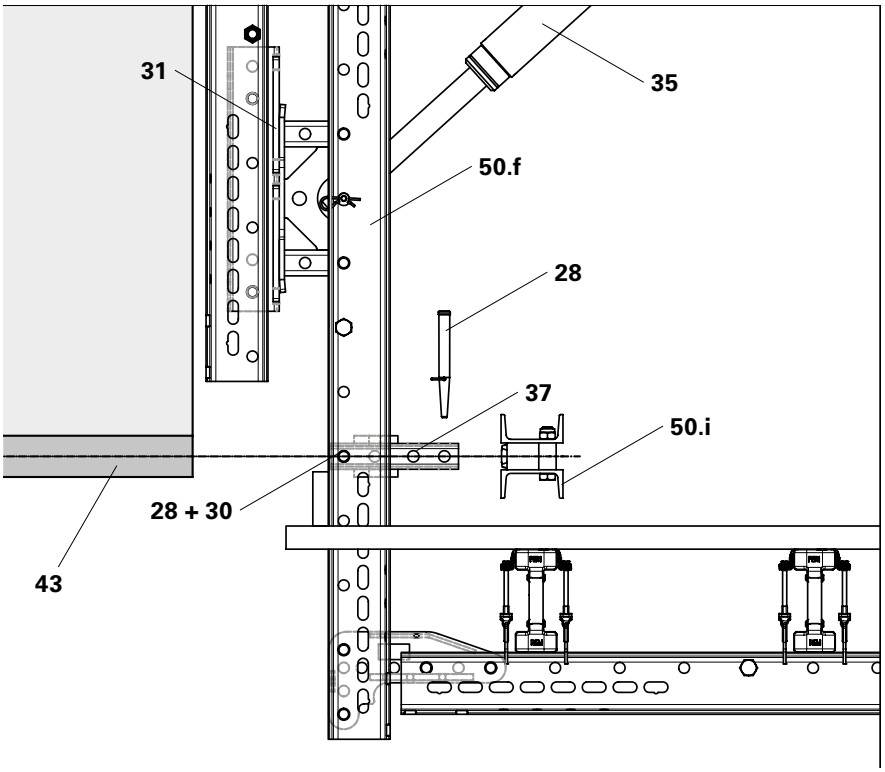


Fig. B7.01

Components:

14 Roller Unit Socket VCT
14.1 G-Hook
14.2 Adjusting nut
15 Roller Unit VCT
28 Fitting Pin Ø21x120mm
29 Cotter Pin 4/1 ga
31 Parallel Connector VARIOKIT
35 Heavy Duty Spindle SLS 100-180
37 Cross Connector VARIOKIT
43 Bottom chord flange
50.f Steel Waler SRU 222 U120
50.i Steel Waler SRU 272 U120

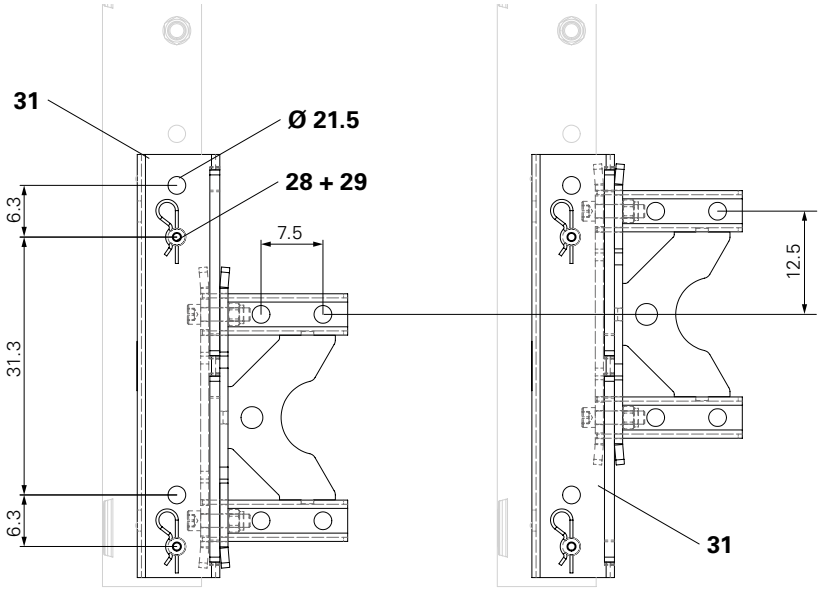


Fig. B7.01a

Assembly

1. Slide the Cross Connector VARIOKIT (**37**) into the vertical Steel Waler SRU (**50.f**) at the height of the centre axis of the bottom chord flange (**43**) and fit it with Fitting Pin Ø21x120 mm (**28**). Secure with Cotter Pin 4/1 ga (**29**).
2. Slide the horizontal Steel Waler SRU (**50.i**) onto the Cross Connector VARIOKIT (**37**) and align it.

(Fig. B7.01)

3. Fit Roller Unit Socket VCT (**14**) to Steel Waler SRU (**50.f**) with 2x Fitting Pins Ø 21x120 and secure with 2x Cotter Pins 4/1 ga.
4. Push the Roller Unit VCT (**15**) into the Roller Unit Socket VCT (**14**) and fit the G-hook (**14.1**) into the desired position.
   → The inner tube of the Roller Unit VCT (**15**) is fixed in place.
5. Turn the adjusting nut (**14.2**) on the handle to the desired dimension.

(Fig. B7.02 – Fig. B7.04)

- The distance between the platform and the bottom chord flange (**47**) can be adjusted using the Roller Unit VCT (**15**).

(Fig. B7.02 + Fig. B7.03)

- The Parallel Connector VARIOKIT can be used to precisely adjust the height of the Roller Unit VCT (**15**) in relation to the bottom chord flange (**43**).

(Fig. B7.01a)

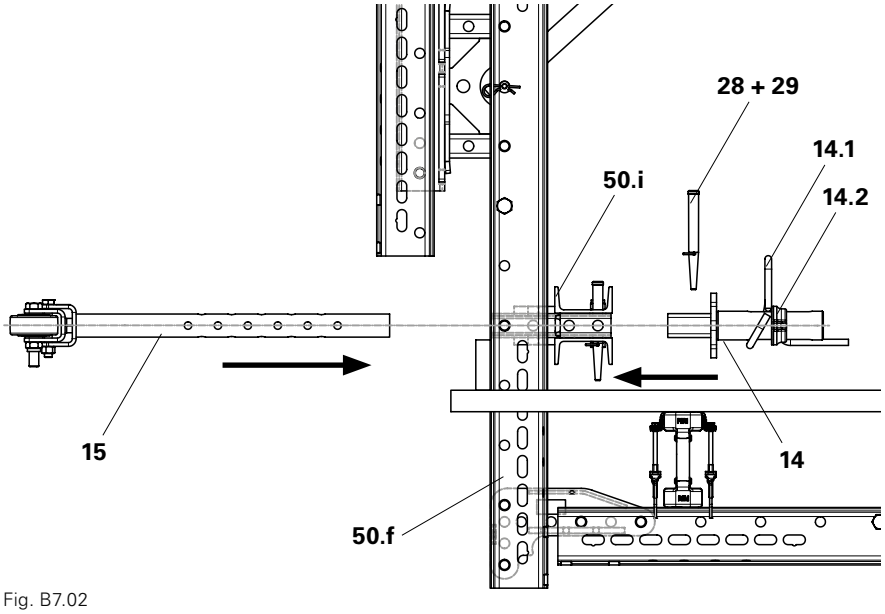


Fig. B7.02

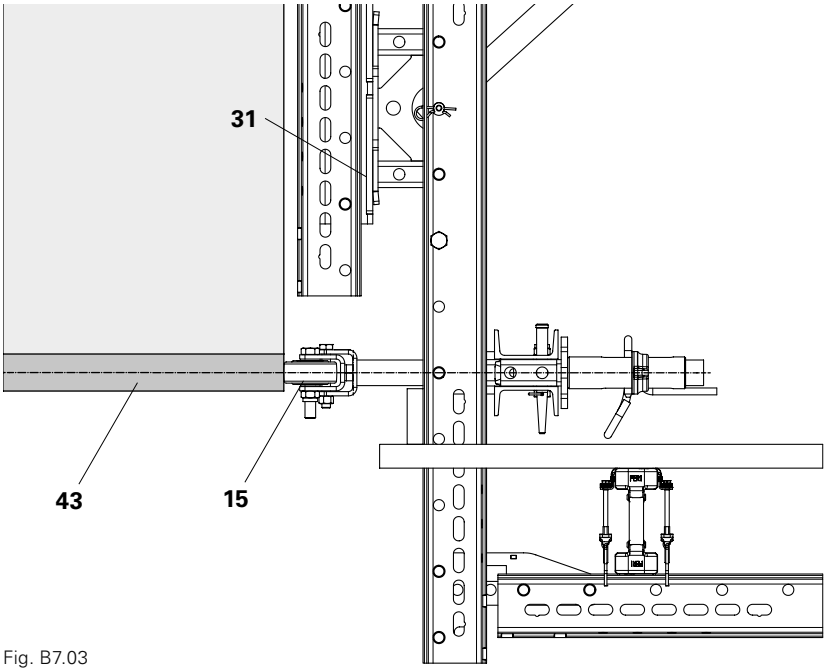


Fig. B7.03

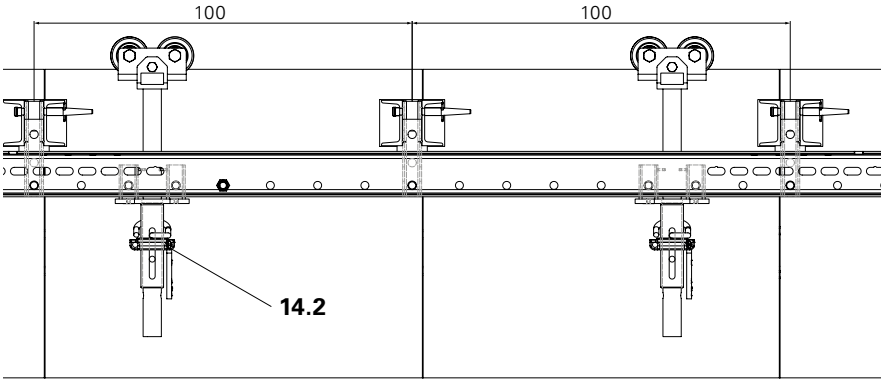


Fig. B7.04

Assembling and disassembling the platforms and formwork units

Lifting the leading and finishing platform and formwork units onto the steel bridge with the Assembly Head VCT

- The assembly and disassembly sequence for the leading and finishing platforms and the formwork units must be planned before use. It may be necessary to have additional tie points (Anchor Brackets VCT or holes) on or in the steel structure.
- The assembly and disassembly points of the elements can be used at the abutments of the bridge or at another accessible point on the bridge. Both can be spatially separated from each other.
- A sequence plan must be drawn up showing the position of the Assembly Heads VCT, the insertion point of an assembly fork, the crane position and the details of the element loads.
- The unit assembly and disassembly processes may result in open fall edges. Either close them or use PPE.

(Fig. B8.01)

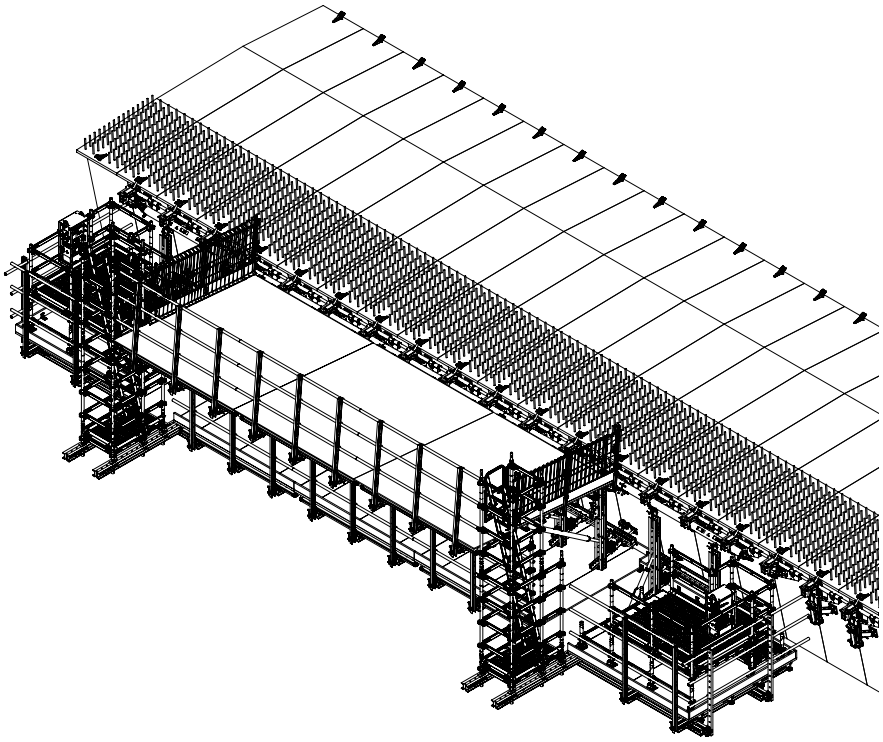


Fig. B8.01

Process of lifting the leading platform into the Assembly Heads VCT

Risk of falling

Risk of falling due to open fall edges!
A fall will result in death or serious irreversible injury.
Risk of falling due to open fall edges during all work on the leading platform, e.g. when removing the 4-sling lifting gear.

⇒ Use PPE and decide on suitable attachment points.

The leading platform may fall down during transport!
This can lead to serious injuries or even death.

⇒ Do not stand under the suspended load.
⇒ Do not carry out any work under suspended loads.
⇒ Guide the leading platform with ropes during insertion and repositioning processes.

Warning

- Risk of crushing when lifting the leading platform into the assembly heads.

⇒ Prevent loads from swinging.
⇒ Keep your extremities away from the pinch points.

Assembly Head VCT
The Assembly Head VCT (**40**) enables attachment of the leading and finishing platforms and formwork units.
Follow the assembly instructions for the Assembly Head VCT and hydraulics!

Components:

5 Suspension Head VCT
22 Drive Rail VCT
40 Assembly Head VCT
40.2 Clamping shoe
40.4 Pawl
40.5 Lever
40.6 Flag
103 Hydraulic Pump RCS MAX
125 Flow Divider RCS MAX

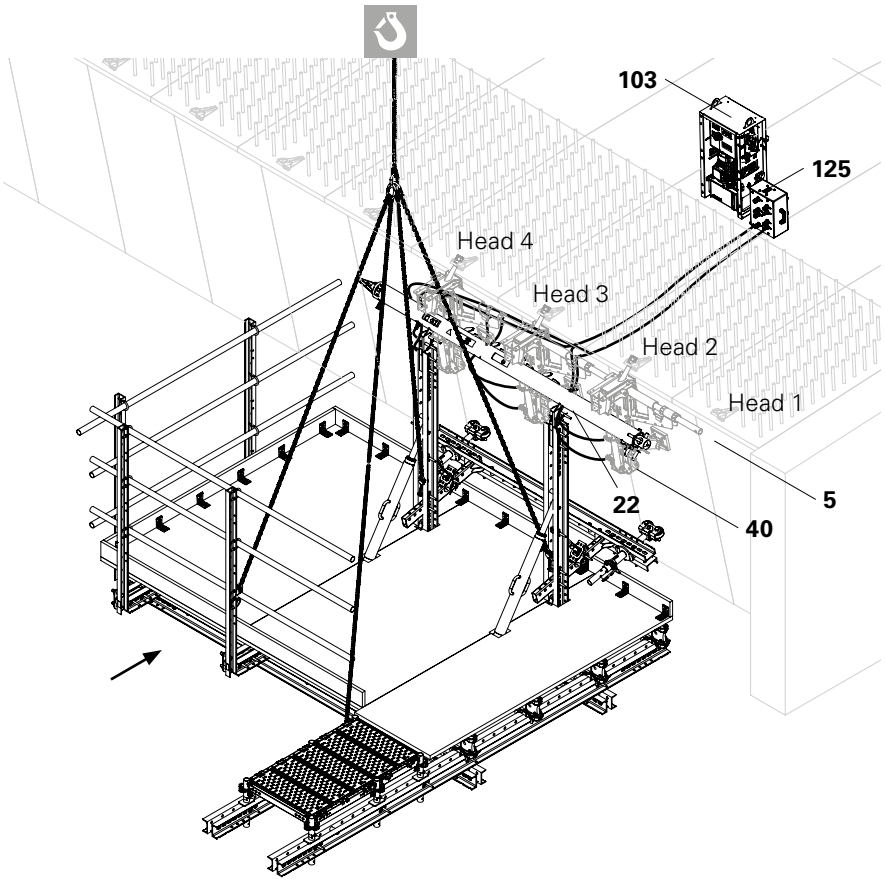


Fig. B8.02

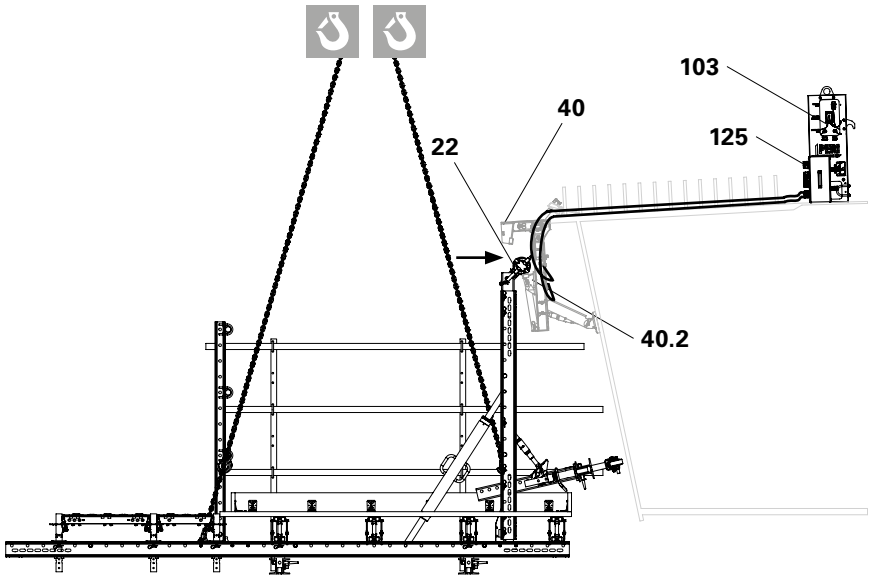


Fig. B8.02a

Prerequisite

- The Hydraulic Pump RCS MAX (**103**) is positioned on the steel structure with the Flow Divider RCS MAX (**125**).
- The Assembly Heads VCT (**40**) are connected to the Hydraulic Pump RCS MAX (**103**) with Flow Divider RCS MAX (**125**) using hydraulic hoses.
- The Assembly Head VCT (**40**) is in an open position (the clamping show (**40.2**) is at the bottom).

(Fig. B8.02 + Fig. B8.02a)

- For connection and installation, see the installation instructions for the Drive Rail VCT and hydraulics.
- Do not place the drive rail on the clamping shoes of the Assembly Heads VCT (**40**).

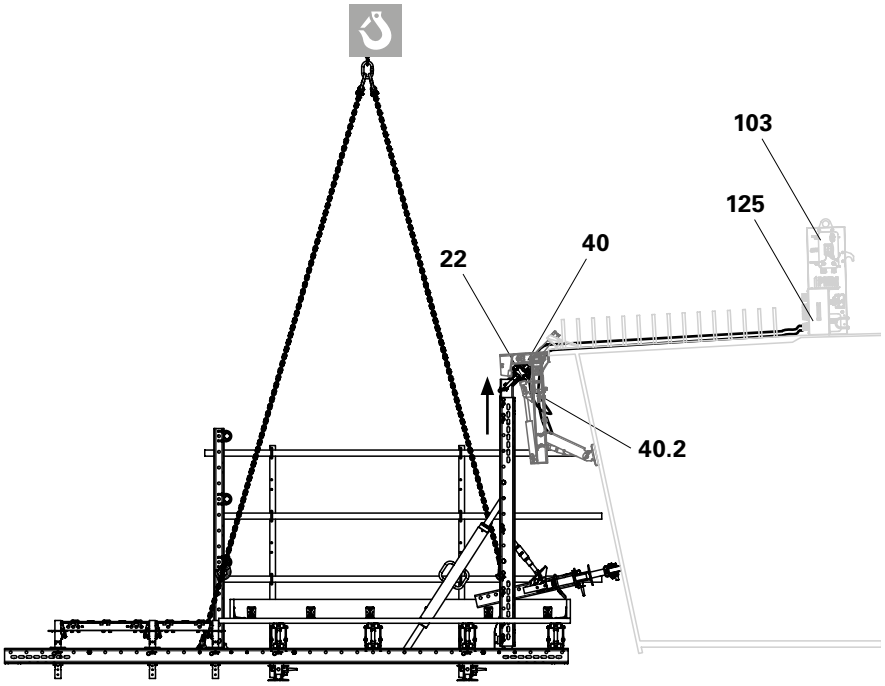


Fig. B8.03

Leading platform lifting process

1. Attach the leading platform to the crane using 4-sling lifting gear.
2. Lift the leading platform with Drive Rail VCT (**22**) into the 3 Assembly Heads VCT (**40**). Guide with ropes.

(Fig. B8.03 + Fig. B8.03a)

Closing the assembly heads

1. Using Hydraulic Pump RCS MAX (**103**) and Flow Divider RCS MAX (**125**) (on steel structure), raise the hydraulic clamping shoe (**40.2**) until the mechanical pawl (**40.4**) audibly engages. Retract the hydraulic clamping shoe until it is seated on the pawl.

(Fig. B8.03 + Fig. B8.03a)

2. Lower the leading platform slightly until the drive rail is resting on the clamping shoes.

→ The leading platform is secured mechanically in the assembly heads (**40**).

→ The pawl (**40.4**) in the assembly head is activated.

3. Unhook the 4-sling lifting gear, use PPE.

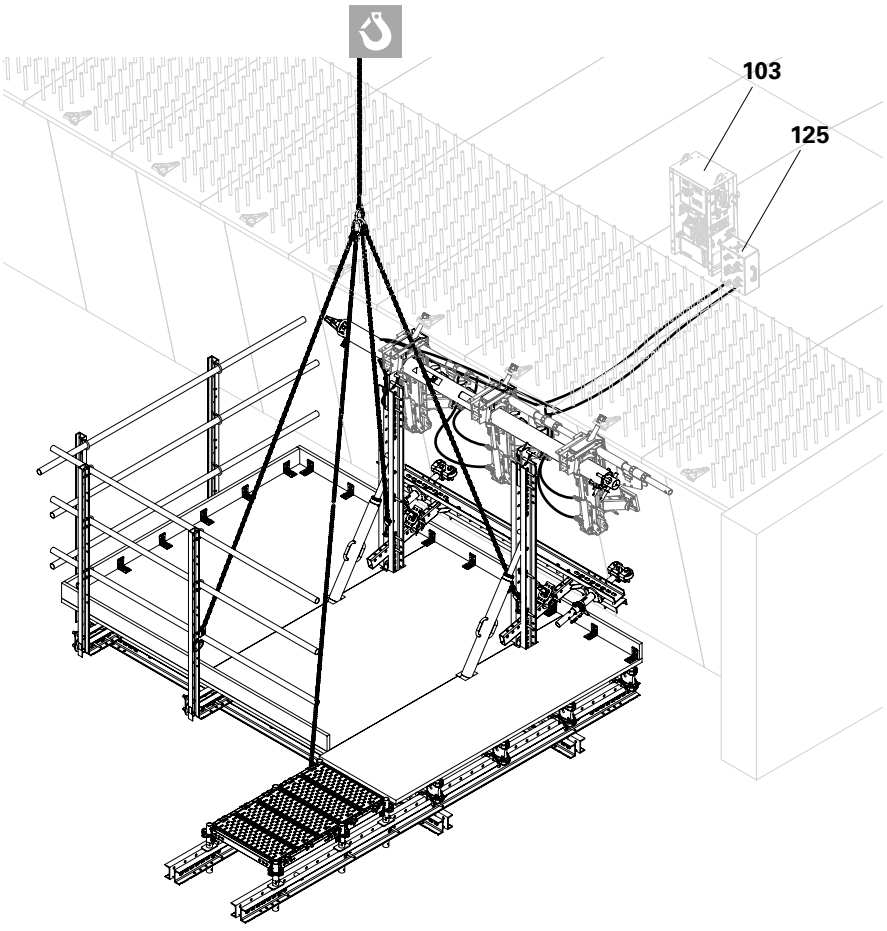


Fig. B8.03a

Preparing assembly heads for next use

Components:

40 Assembly Head VCT
40.5 Lever
40.6 Flag

1. Detach the 4-sling lifting gear.
   → Use PPE.
2. Deactivate the pawl on all assembly heads (**40**).
   To do this, pull the lever (**40.5**) in the shifting gate forwards until it engages at the top. The flag (**40.6**) serves as a visual identifier.
   → The assembly head is prepared for the next use, see Assembly Head VCT and hydraulics.

(Fig. B8.04 + Fig. B8.04a)

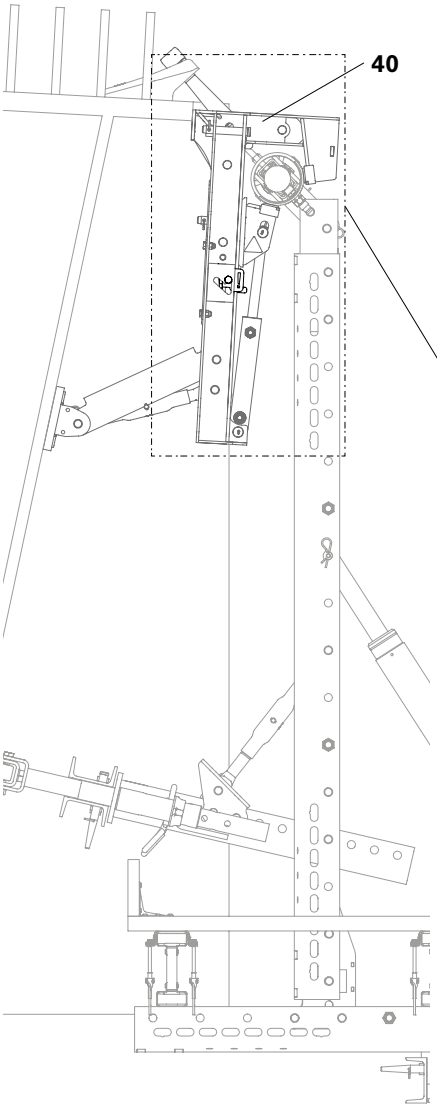


Fig. B8.04

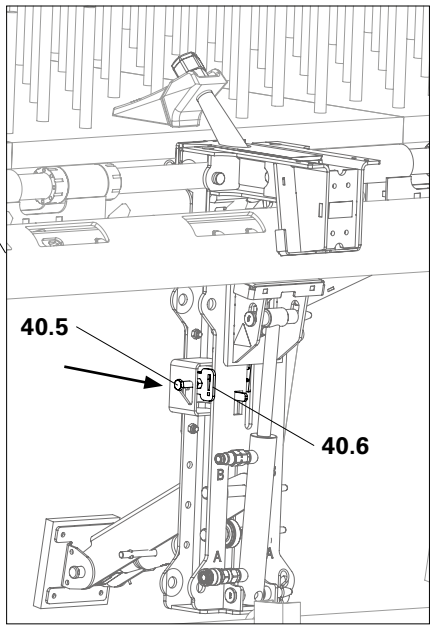


Fig. B8.04a

Lifting the operating platform with hydraulic pump onto the leading platform

Danger

Risk of falling due to open fall edges during all work on the leading platform, e.g. when removing the 4-sling lifting gear.

⇒ Use PPE and decide on suitable attachment points.

Requirements

- The assembled operating platform is ready for transport, see "Setting up the operating platform for the leading and finishing platform" on page 90.
- Hydraulic Pump RCS MAX (**103**) is attached to the operating platform, hydraulic hoses are connected, vented and secured for transport, see the assembly instructions for the Assembly Head VCT and hydraulics.

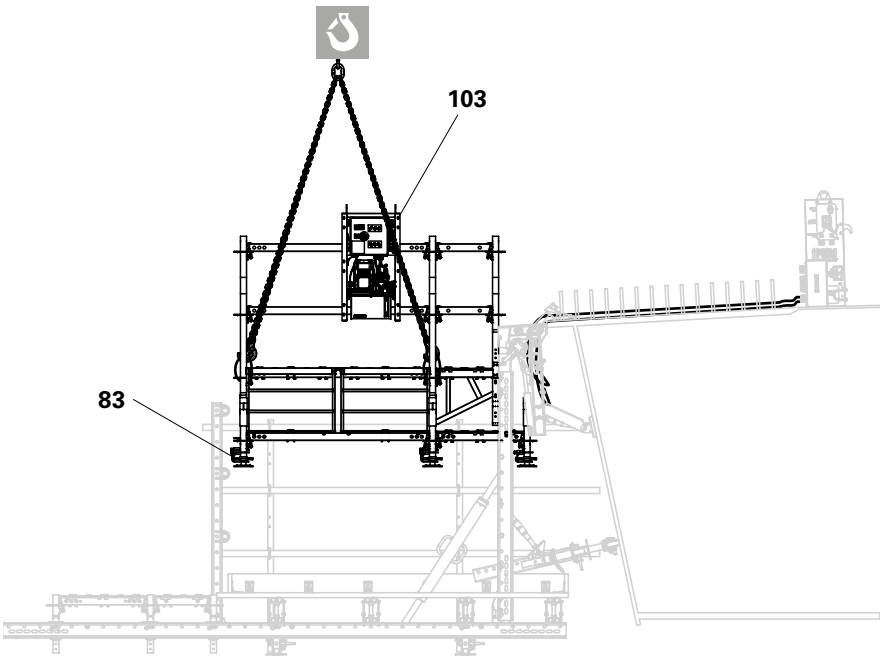


Fig. B8.05

Components:

5 Suspension Head VCT
17 Head Bracing VCT 100
18 Head Bracing VCT 125
19 Head Bracing VCT 150
20 Spindle Head Bracing VCT
72 Wood Screw 6x40 SK-TX30 HPI
83 Handle Locking UJS
89 Crane Eye-2 CB 240 0.7t
103 Hydraulic Pump RCS MAX

- The 4-sling lifting gear can be attached to the rosette with a lifting eye (**89**) or round sling (**86**).

- Have all spindles been secured with Handle Locking UJS (**83**)?

- The system can generally be operated with just one hydraulic pump. The direction of travel must be changed on the Drive Rail VCT on the leading and finishing platform. The drive profile is operated from the platform on which the hydraulic pump is positioned.
- If tandem operation (both cylinders of the drive rails) is required, a hydraulic pump must also be installed on the other operating platform. For safety reasons, simultaneous operation of both drive rails with only a single unit is not recommended.

Lifting and installing the operating platform

1. Attach the operating platform with mounted Hydraulic Pump RCS MAX (**103**) and connected, transport-secured hydraulic hoses to the rosettes with 4-sling lifting gear. Attach the crane hook to the rosette or use a round sling.
2. Lift the operating platform with hydraulic pump onto the leading platform.
   Guide with ropes.
3. Position at the intended location.

(Fig. B8.05 + Fig. B8.05a)

4. Remove the 4-sling lifting gear.
5. Screw the Adj. Base Plates to the deck of the working platform using wood screws 6 x 40 SK-TX 30 (**72**).

(Fig. B8.06)

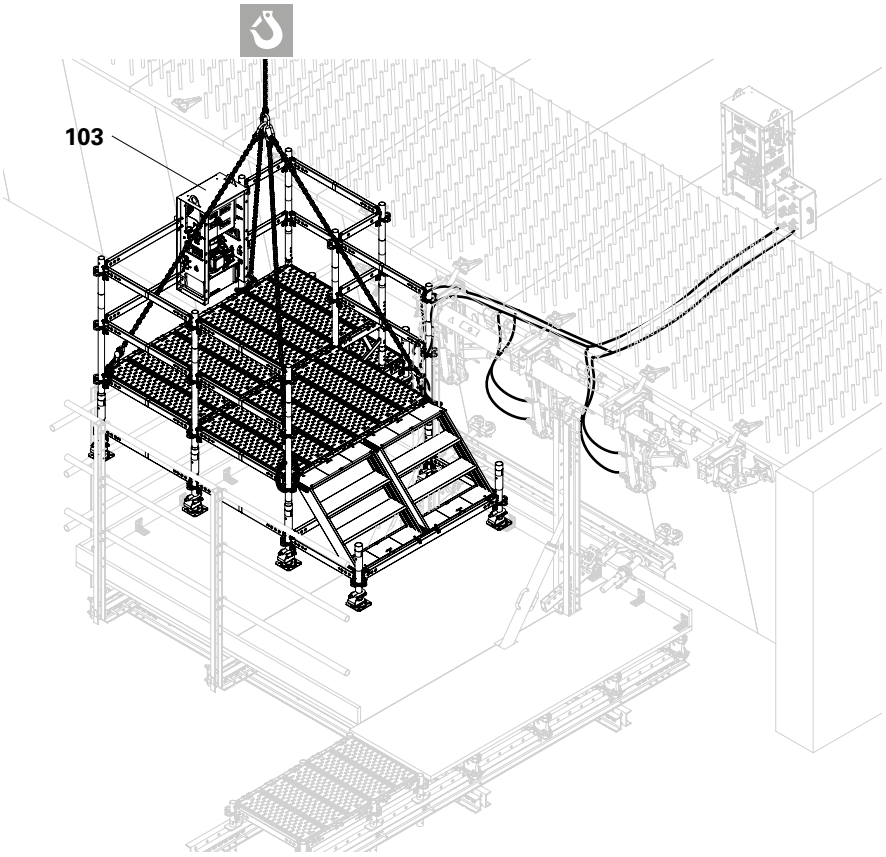


Fig. B8.05a

Fitting the Suspension Head VCT

1. Attach Suspension Head VCT (**5**) with head reinforcement (17, 18, 19) and spindle (**20**), see "Head bracing for anchor brackets" on page 95.

(Fig. B8.06)

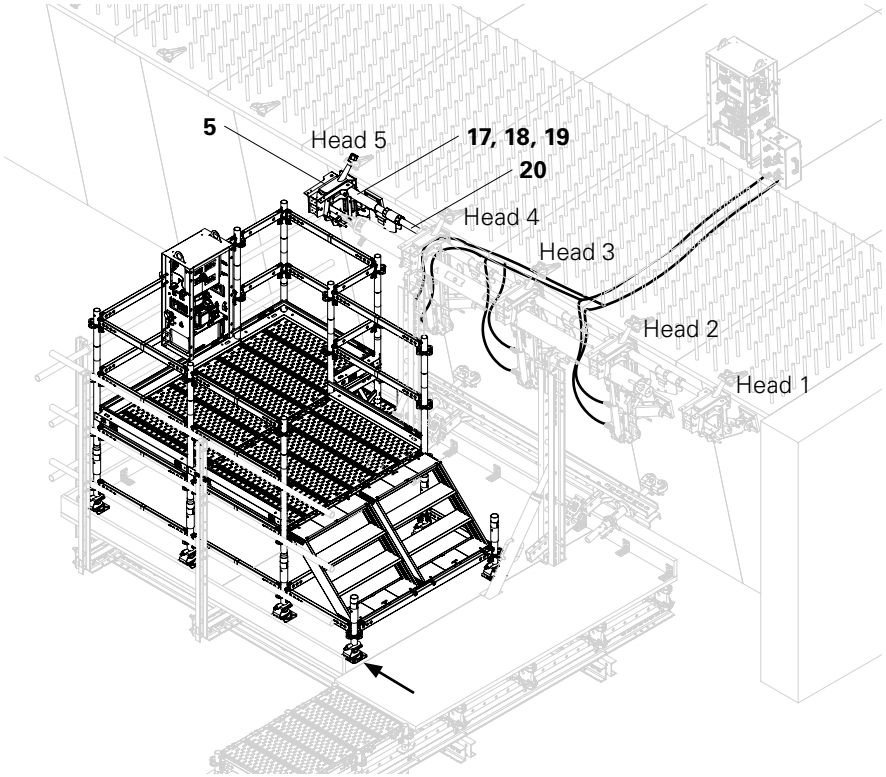


Fig. B8.06

Mounting the ladder tower on the leading platform

Prerequisite

- The leading platform ladder tower is ready for transport.
- The leading platform ladder tower was checked on the ground for accuracy of fit on the leading platform.
- Before lifting, secure all Base Standards Variokit UVA (**77**) with Locking Pins Ø48-57 mm (**78**).
- Stabilise the ladder tower with an additional Horizontal Ledger UH-2 (**76**) before lifting in.

Components:

76 Horizontal Ledger UH-2
77 Base Standard Variokit UVA
78 Locking Pin Ø48-57 mm

Assembly

1. Attach the ladder tower to the crane using 4-sling lifting gear.
2. Move the ladder tower into position above the leading platform.
3. From a safe workplace, lower the ladder tower onto the base standards (**77**) and secure with Locking Pins Ø48-57 mm (**78**).
4. Remove the stabilising additional Horizontal Ledger UH-2 (**76**) from the ladder tower.
5. Remove the 4-sling lifting gear. Use PPE for this.

(Fig. B8.07)

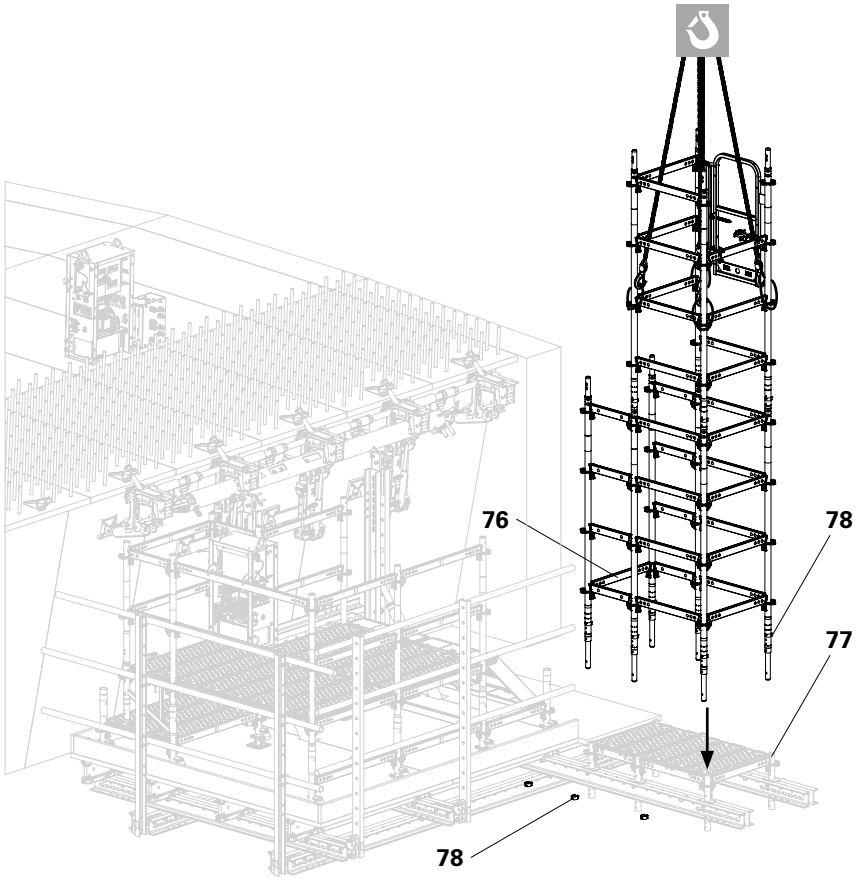


Fig. B8.07

The ladder tower must be firmly connected to the leading platform.

- Are all Base Standards Variokit UVA (**77**) secured with Locking Pins Ø48-57 mm (**78**)?
- Is the spring clip of the locking pin (**78**) in contact with the tube?

Fitting the toe boards and access ladder

Only fit the toe boards after the lifting-in process, otherwise they may be damaged by the crane lifting gear.

PERI UP components such as toe boards from the PERI UP Scaffolding Kit are used as lateral protection, see PERI UP Scaffolding Kit "Additional technical documentation" on page 6

Components:

69 Toeboard Steel UPY
76 Horizontal Ledger UH-2
79 Ladder Connector Ledger UAM-S
80 Aluminium ladder

Assembly of lateral protection

1. Fit Steel Toe Board UPY (**69**) as lateral protection on the operating platform and ladder tower. (Fig. B8.08 + Fig. B8.08a)

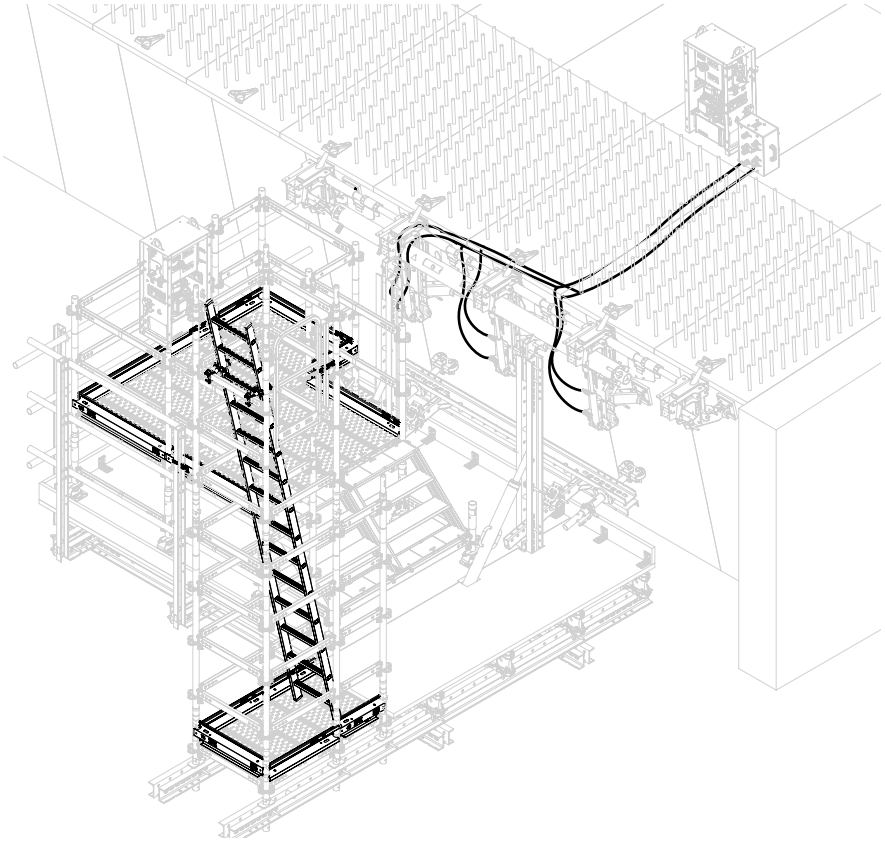


Fig. B8.08

- The detailed assembly process for the access ladder is described in the Instructions for Assembly and Use for PERI UP Scaffolding Kit, see “Additional technical documentation” on page 6.
- PERI UP components from the PERI UP Scaffolding Kit are used for the access ladder.
  → See PERI UP Scaffolding Kit

Fitting the access ladder

Fitting the ladder

1. Place the ladder, for example the Ladder Alu UAI (**80**), in the half shells of the ladder connectors and screw the Ladder Connector Ledgers UAM-S (**79**) tight.

(Fig. B8.08 + Fig. B8.08a)

If other ladders are used, also follow the manufacturer's instructions for use.

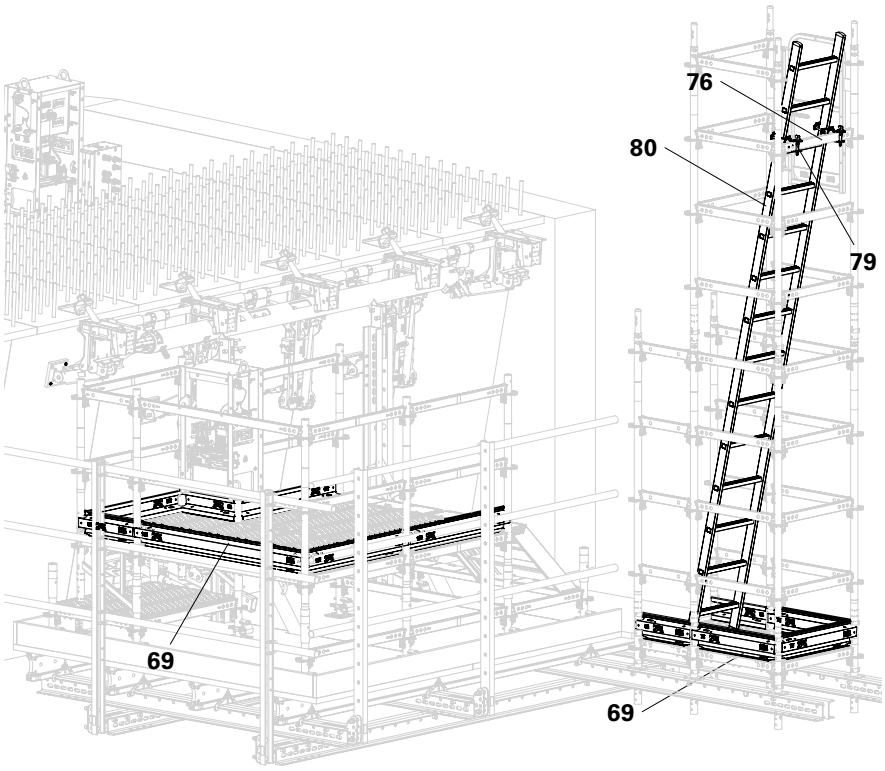


Fig. B8.08a

Preparing the leading platform for movement

Risk of falling

When working on the leading platform, there is a risk of falling due to open fall edges.

⇒ Use PPE and decide on suitable attachment points.

For connection and travel, see the installation instructions for the Drive Rail VCT and hydraulics "Additional technical documentation" on page 6.

Preparatory work

1. The Hydraulic Pump RCS MAX (**103**) required for movement is hydraulically connected to the Drive Rail VCT (**22**).
2. The power connection to the Hydraulic Pump RCS MAX (**103**) has been established.
3. The pawl is deactivated on all assembly heads (**40**).

Moving the leading platform

1. Move the leading platform step by step to the left out of the closed Assembly Heads VCT (**40**) (see arrow).
2. Fit additional Suspension Heads VCT (**5**) successively on the Anchor Brackets VCT M30 (**3**) from the leading platform.
3. Move the leading platform to the left in the direction of travel until the Rail Track Coupler VCT (**11**) is in the centre of head 5.

Subsequent work

1. Open the assembly heads (**40**) hydraulically with Hydraulic Pump RCS MAX (**103**) and Flow Divider RCS MAX (**125**) from the steel trough.

(Fig. B8.09)

→ The assembly heads are now free and ready for the next operation (lifting in the formwork unit).

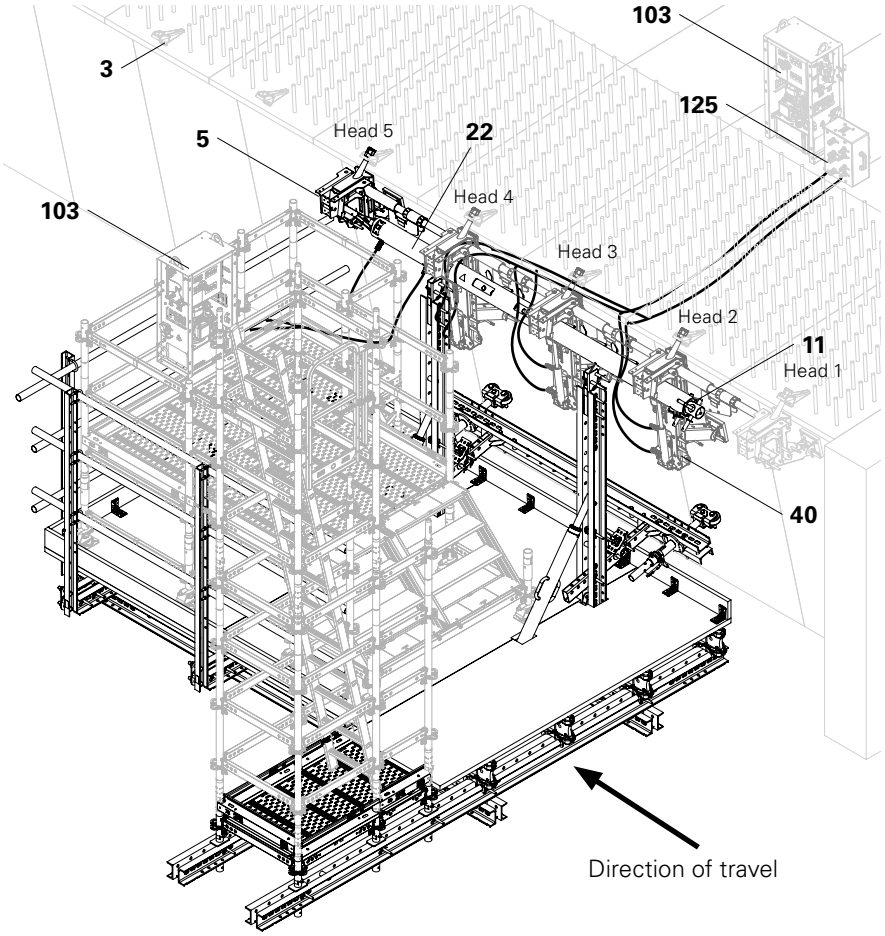


Fig. B8.09

Lifting the formwork unit into the Assembly Head VCT

Risk of falling

When attaching the 3-sling lifting gear.
⇒ Use PPE and decide on suitable attachment points.
The shuttering unit may fall during transport!
This can lead to serious injuries or even death.
⇒ Do not stand under the suspended load.
⇒ Do not carry out any work under suspended loads.
⇒ Guide the formwork unit with ropes during the insertion and repositioning processes.

Warning

Risk of crushing when lifting in the formwork unit.
⇒ When lifting the formwork unit into the raised position, ensure a safe and secure position.

Preparatory work
The formwork unit is complete and in temporary storage.
The Rail Track Coupler VCT (**11**) has been installed on the formwork unit standing on the floor.

- To ensure even load distribution and support, only one crane chain (mono) (**46**) is used on the lateral protection with round sling and Crane Eyes-2 CB 240 0.7t (**89**).
- The single strand of the crane chain (mono) (**46**) is shortened accordingly.

(Fig. B8.10 – Fig. B8.10a)

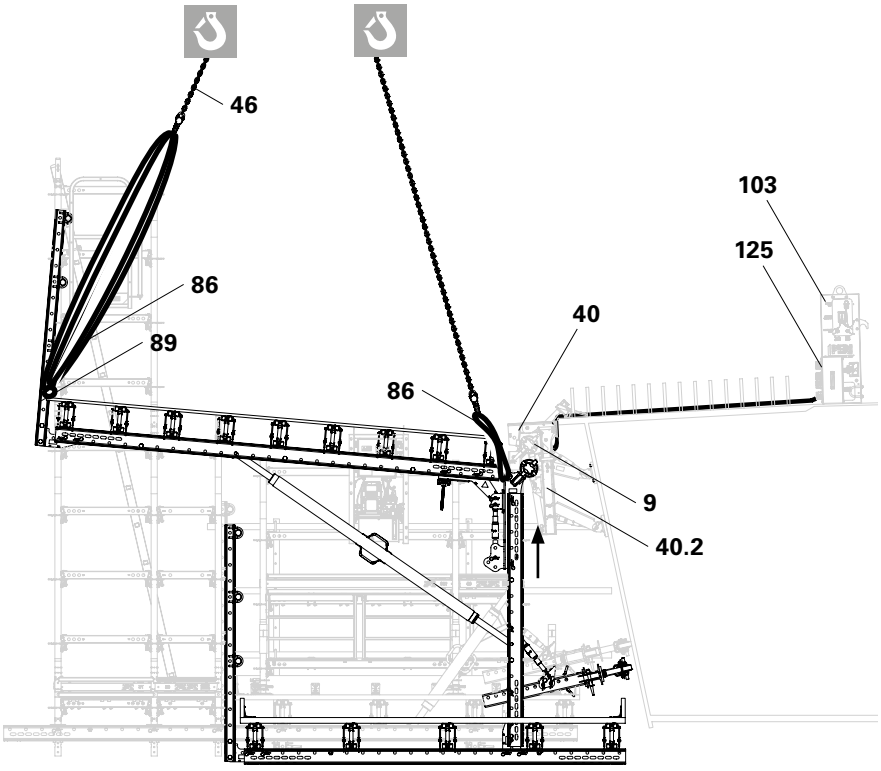


Fig. B8.10

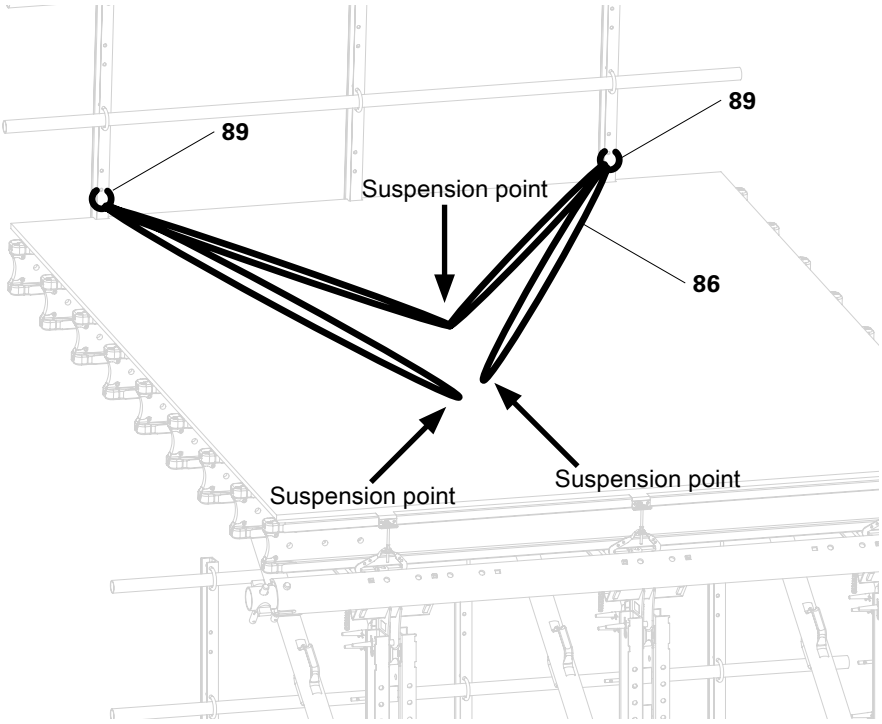


Fig. B8.10a

Components:

3 Anchor Bracket VCT M30
5 Suspension Head VCT
9 Rail Track VCT 300
11 Rail Track Coupler VCT
22 Drive Rail VCT
40 Assembly Head VCT
40.2 Clamping shoe
46 Crane chain (mono)
86 Round sling
89 Crane Eye-2 CB 240 0.7t
103 Hydraulic Pump RCS MAX
125 Flow Divider RCS MAX

Procedure

1. Pull the round sling 8 m (**86**) through the 2x Crane Eyes-2 CB 240 0.7t (**89**).

(Fig. B8.10a))

2. Hook both ends (suspension point) into the crane hook.

(Fig. B8.10 – Fig. B8.11)

3. Pick up round sling 8 m (**86**) between the 2 Crane Eyes-2 CB 240 0.7t (**89**) (suspension point) and hook it into the crane hook.

(Fig. B8.10a))

⇒ 4 round sling strands are suspended from the crane hook on the crane chain (mono) (**46**).

Lifting the formwork unit in

1. Attach the formwork unit to the crane using 3-sling lifting gear and round slings (**86**).
2. Lift the formwork unit with Rail Track VCT 300 (**9**) into the 3 assembly heads (**40**).
   Guide with ropes.

(Fig. B8.10 – Fig. B8.11)

Closing the assembly heads

(Fig. B8.10)

See leading platform on page 101.

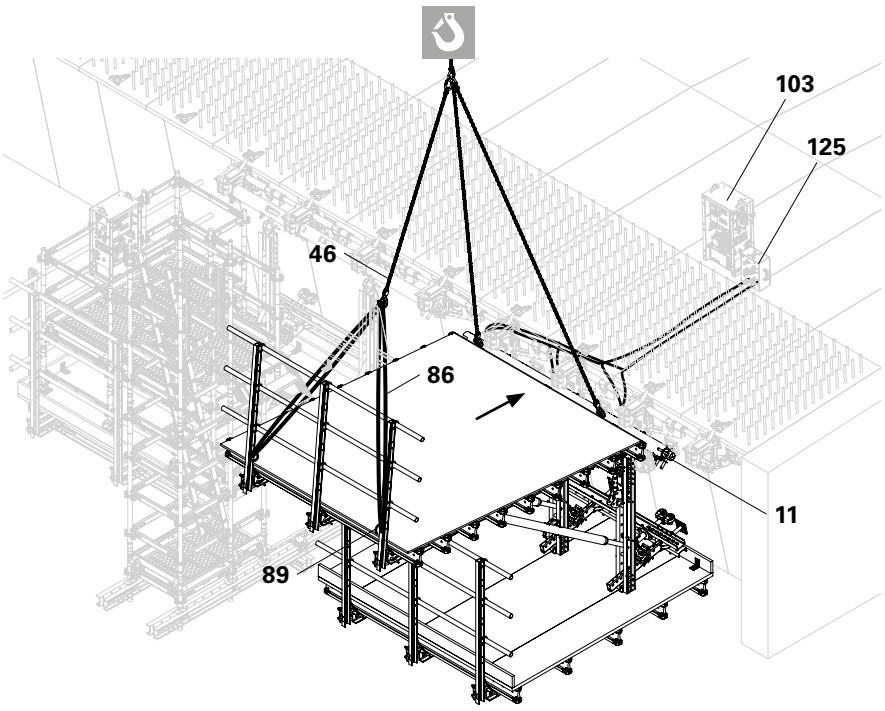


Fig. B8.11

For the first formwork unit, fit the front side protection mesh, see Section "B3 Pre-assembly of formwork unit" on page 70

→ Use PPE.

Coupling the formwork unit in the Suspension Head VCT (head 5)

Warning

- Risk of crushing when coupling.

⇒ When coupling the leading and finishing platforms and the formwork unit in a raised position, ensure a safe and secure position.

Components:

5	Suspension Head VCT
9	Rail Track VCT 300
10	Coupler Pin VCT
11	Rail Track Coupler VCT
22	Drive Rail VCT
22.13	U-plate
29	Cotter Pin 4/1 ga
40	Assembly Head VCT
40.2	Clamping shoe

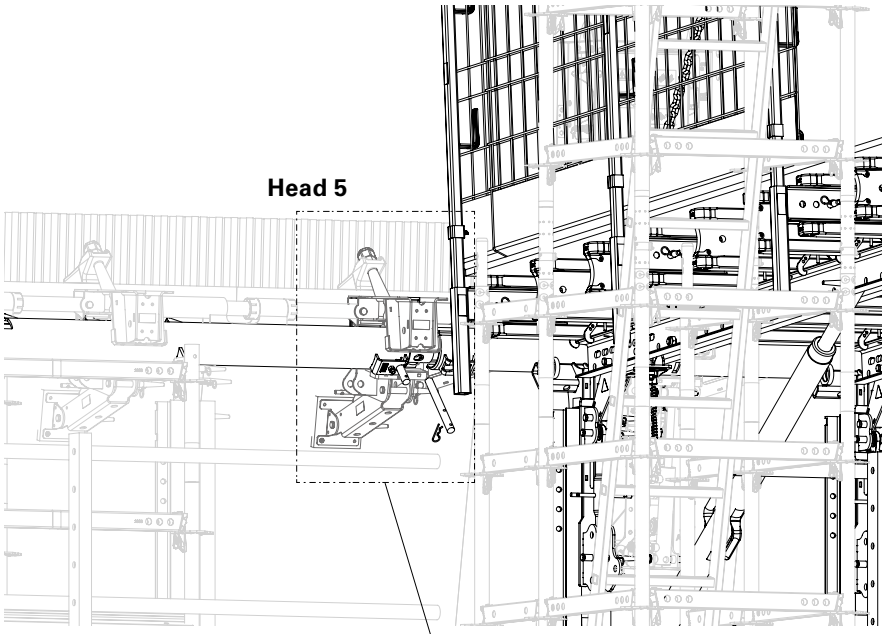


Fig. B8.12

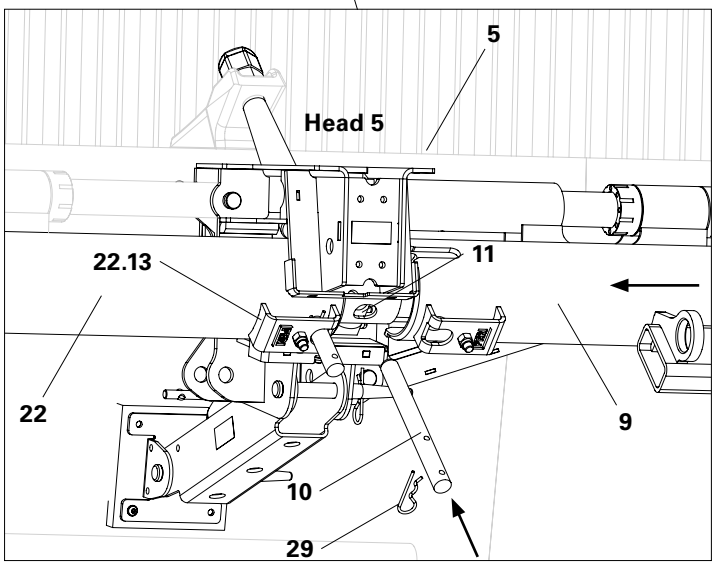


Fig. B8.12a

The coupling process takes place in Suspension Head VCT (**5**) (head 5). The formwork unit hangs on the crane in the closed assembly heads (**40**).

Coupling process

1. Remove the Cotter Pin 4/1 ga (**28**) from the Coupler Pin VCT (**10**) at the connection point to be coupled.
2. Swivel the formwork unit towards the leading platform with the crane until the Rail Track Coupler VCT (**11**) is centred more or less centrally in head 5.
3. Fit the Rail Track VCT 300 (**9**) with Coupler Pin VCT (**10**) to Rail Track Coupler VCT (**11**) and secure with Cotter Pin 4/1 ga (**29**).

(Fig. B8.12 + Fig. B8.12a)

4. Detach the 3-sling lifting gear. Use PPE for this.

- Secure Coupler Pin VCT (**10**) from below with Cotter Pin 4/1 ga (**29**).
- Be sure to insert Cotter Pin 4/1 ga (**29**) between the Drive Rail VCT (**22**) and the U-plate (**22.13**).

The profiles are coupled in the Suspension Head VCT (**5**). Both profiles are resting in the Suspension Head VCT (**5**) and are at the same height.

Moving the leading platform with formwork unit

After coupling to the formwork unit:

Preparatory work

1. Deactivate the pawl on all assembly heads (**40**).
   The Assembly Head VCT is ready for the next use.

(Fig. B8.13)

The clamping shoe (**40.2**) is resting on the pawl and must first be lifted slightly hydraulically in order to lower it.

→ The pawl is released and can engage.

→ The clamping shoe can be moved downwards.

Moving the carriage

1. Move the VCT Composite Track, consisting of the leading platform and coupled formwork unit, out of the assembly heads (**40**) in the direction of travel.
2. Move the VCT Composite Track until the Rail Track Coupler VCT (**11**) comes to rest in the centre of the Suspension Head VCT (**5**) (head 5).

(Fig. B8.13 + Fig. B8.13a)

3 Open the Assembly Heads VCT (**40**) hydraulically.

(Fig. B8.13 + Fig. B8.13a)

→ The assembly heads are now free and ready for the next operation (lifting in the next formwork unit).

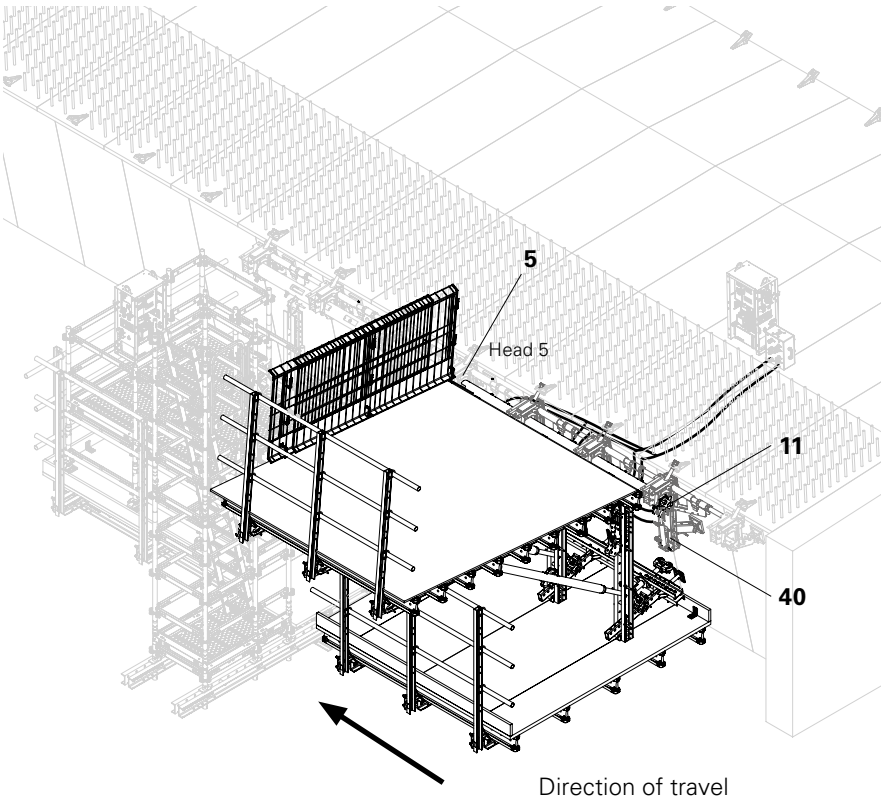


Fig. B8.13

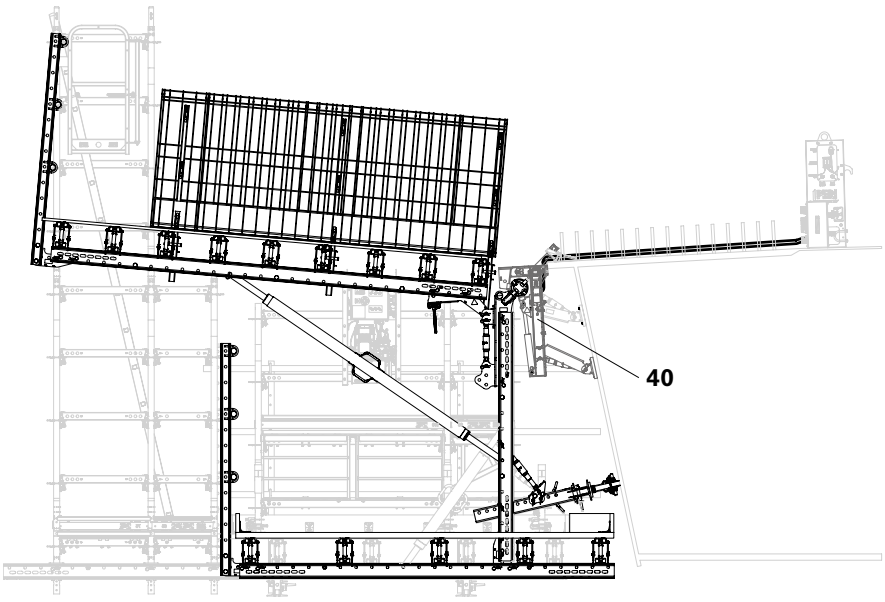


Fig. B8.13a

Coupling further formwork units

- For the attaching and coupling procedure, see "Lifting the formwork unit into the Assembly Head VCT" on page 109 onwards.
- The last shuttering unit is fitted with front side protection like the first one.

(Fig. B8.14)

Components:

5	Suspension Head VCT
10	Coupler Pin VCT
11	Rail Track Coupler VCT
22	Drive Rail VCT
38	Working platform (assembly)
39	Cantilevered formwork (assembly)
40	Assembly Head VCT
40.2	Clamping shoe
42	Cover Strip LPS 20x373
103	Hydraulic Pump RCS MAX
125	Flow Divider RCS MAX

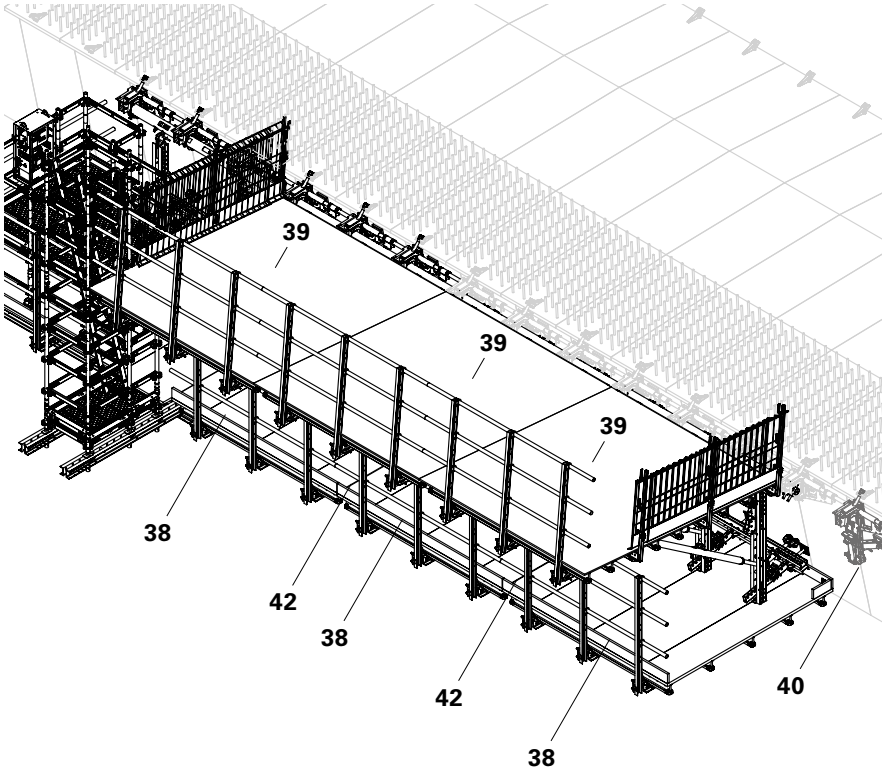


Fig. B8.14

Closing the formwork and gaps

- Saw the filler strips (formlining strips) between the cantilevered formwork (**39**). The cuts should be adapted to the respective concreting section.
- Bridge gaps between working platforms (**38**) with a sufficiently stable compensation element or intermediate element, and secure it on one side so that it cannot slip, e.g. with Cover Tape LPS 20 x 373 (**42**) (article no. 125945).

→ see "C1 Shuttering" on page 133.

Process of lifting the finishing platform into the Assembly Heads VCT

Risk of falling

When removing the 4-sling lifting gear.
⇒ Use PPE and decide on suitable attachment points.
The leading platform may fall down during transport!
This can lead to serious injuries or even death.
⇒ Do not stand under the suspended load.
⇒ Do not carry out any work under suspended loads.
⇒ Guide the leading platform with ropes during insertion and repositioning processes.

Warning

⇒ When lifting the leading platform into the raised position, ensure a safe and secure position.
- Risk of crushing when lifting the leading platform into the assembly heads.

Finishing platform lifting process
1. Attach the finishing platform to the crane using 4-sling lifting gear.
2. Lift the finishing platform with Drive Rail VCT (**22**) into the 3 Assembly Heads VCT (**40**).
   Guide with ropes.

(Fig. B8.15 + Fig. B8.15a)

Closing the assembly heads
(Fig. B8.17)
See finishing platform on page 101.

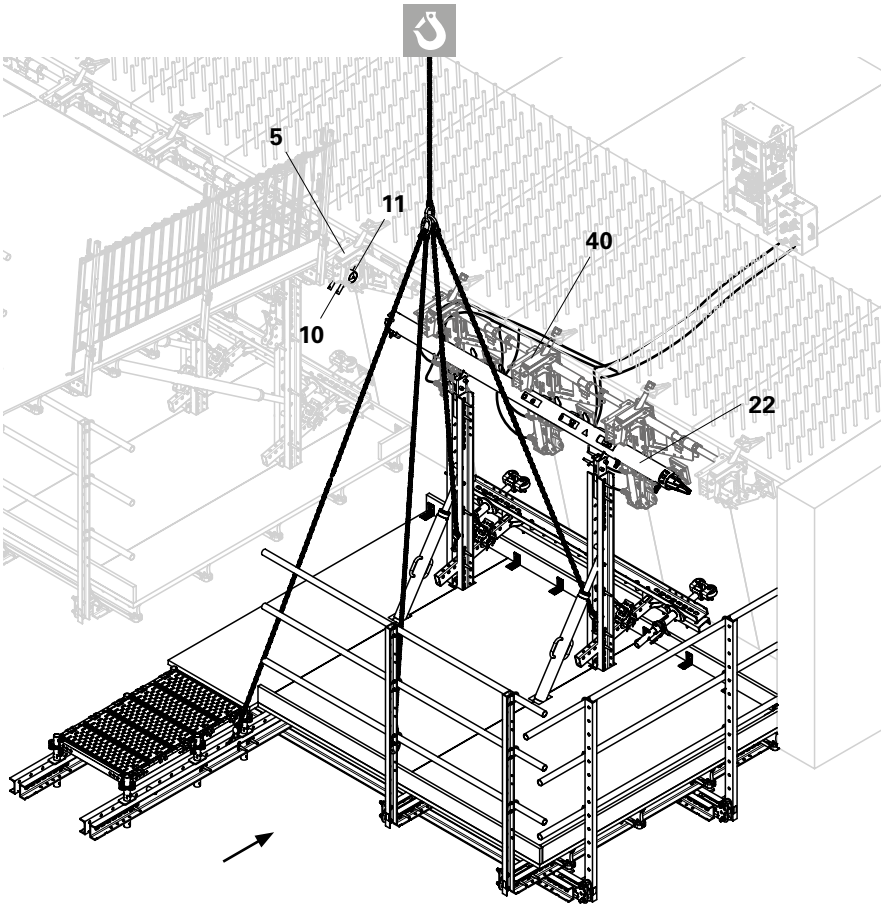


Fig. B8.15

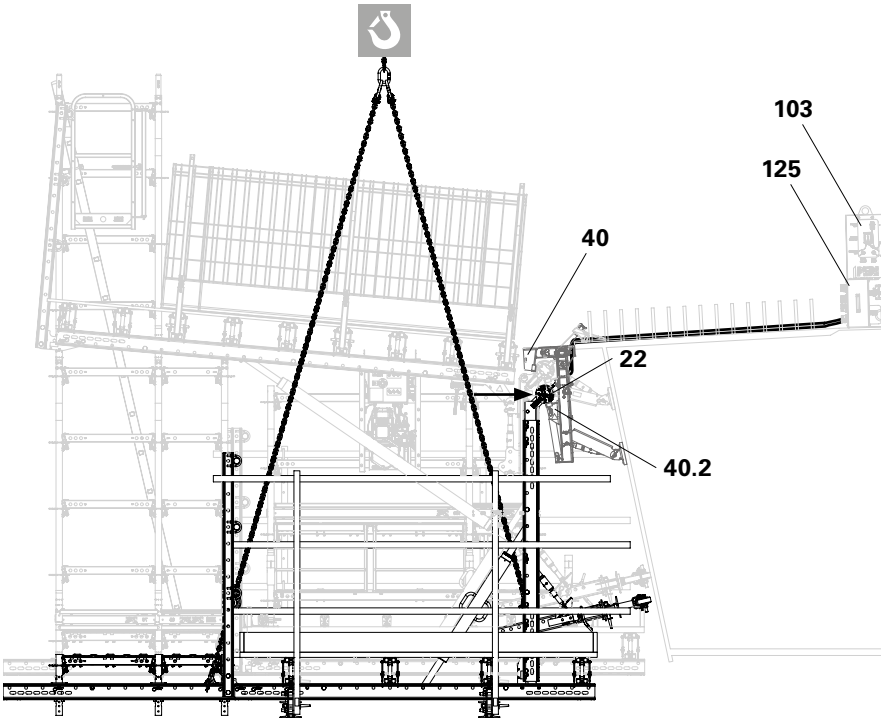


Fig. B8.15a

Coupling the finishing platform to the formwork unit

Coupling the finishing platform

1. Move the finishing platform in closed assembly heads to the left in the direction of travel up to Suspension Head VCT (**5**) (head 5).
2. Fit Drive Rail VCT (**22**) to Rail Track Coupler VCT (**11**) with Coupler Pin VCT (**10**) and secure with Cotter Pin 4/1 ga (**29**), see B8 on page 111.

(Fig. B8.16)

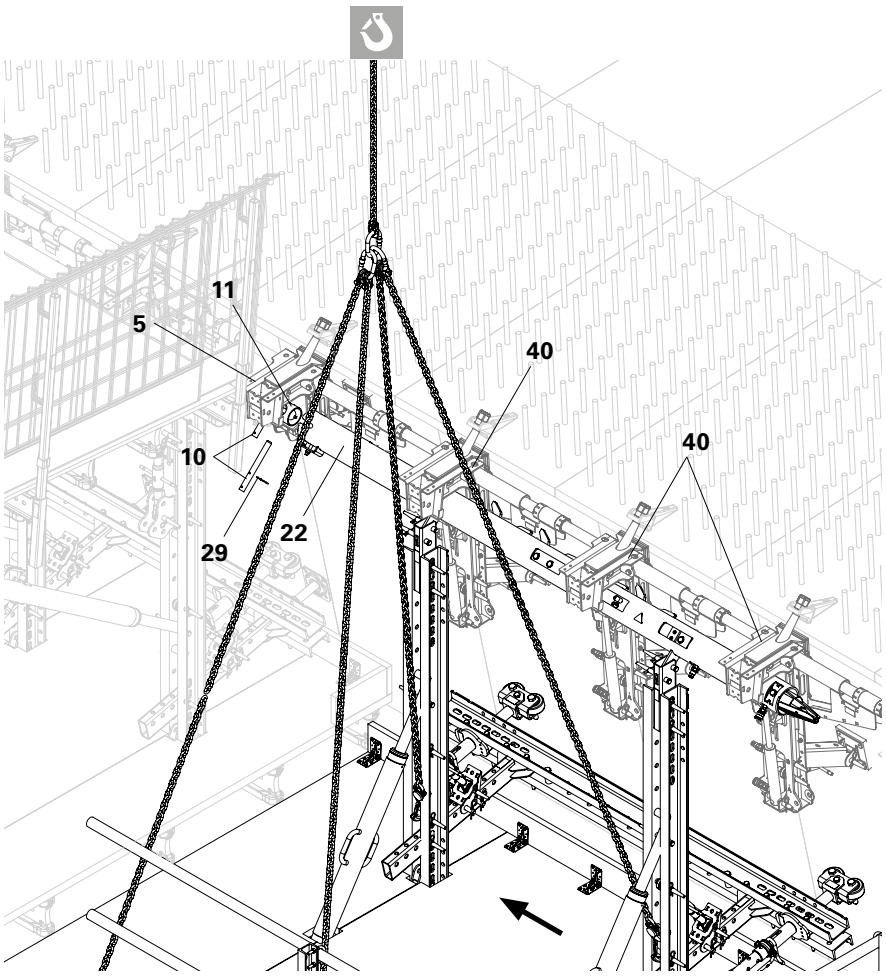


Fig. B8.16

Completing the finishing platform

Preparatory work

- The assembled operating platform is ready for installation, see "Setting up the operating platform for the leading and finishing platform" on page 90.
- The assembled ladder tower, which has been tested for accuracy of fit, is ready for installation.

Finishing platform and ladder tower

- The finishing platform is a leading platform in mirrored form on the formwork unit, see "Process of lifting the leading platform into the Assembly Heads VCT" on page 100.
- See also "Mounting the ladder tower on the leading platform" on page 105.
- The work steps are the same as for the leading platform.

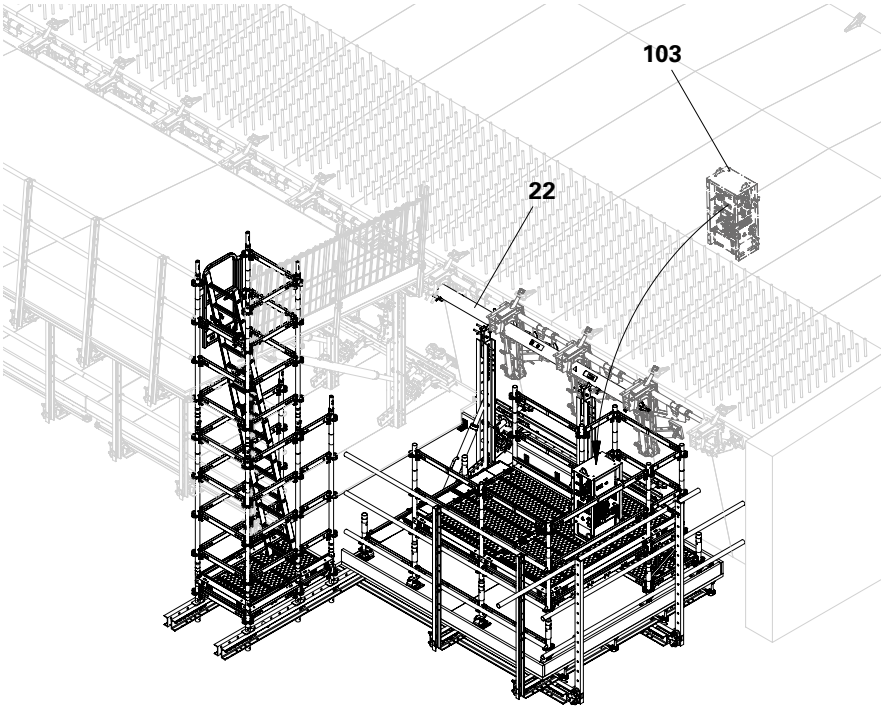


Fig. B8.17

Lifting and installing the operating platform

1. Lift the operating platform, see Section "Lifting the operating platform with hydraulic pump onto the leading platform" on page 103 .
   Guide with ropes.
2. Position at the intended location for the specific project.
3. Remove the 4-sling lifting gear.
4. Screw the Adj. Base Plates to the deck of the working platform using wood screws 6 x 40 SK-TX 30 (**72**).

Lifting and installing the ladder tower

Assembly

1. Attach the ladder tower to the crane using 4-sling lifting gear.
2. Move the ladder tower into position above the finishing platform.
3. Lower the ladder tower onto the base standards (**77**) and secure with Locking Pins Ø48-57 mm (**78**).
4. Remove the 4-sling lifting gear. Use PPE for this.

Repositioning the hydraulic pump

- Once all the platforms have been mounted, the hydraulic pump on the steel bridge is dismantled.
- This hydraulic pump is required to propel the finishing platform.

Components:

22 Drive Rail VCT
40 Assembly Head VCT
40.2 Clamping shoe
103 Hydraulic pump

Repositioning the hydraulic pump

1 Remove the hydraulic pump (**103**) from the steel bridge, see the assembly instructions for the Drive Rail VCT and hydraulics.
2. Attach the hydraulic pump (**103**) to the crane using the 2-sling lifting gear, lift it onto the operating platform of the finishing platform, hook it in and secure it.
3. Remove the 2-sling lifting gear.
4. Connect the hydraulic pump (**103**) to the Drive Rail VCT (**22**) hydraulically.
5. Establish the electrical connection for the hydraulic pump (**103**).

(Fig. B8.17 + Fig. B8.18)

→ The composite track is fully assembled with leading and finishing platforms and formwork units.

(Fig. B8.19)

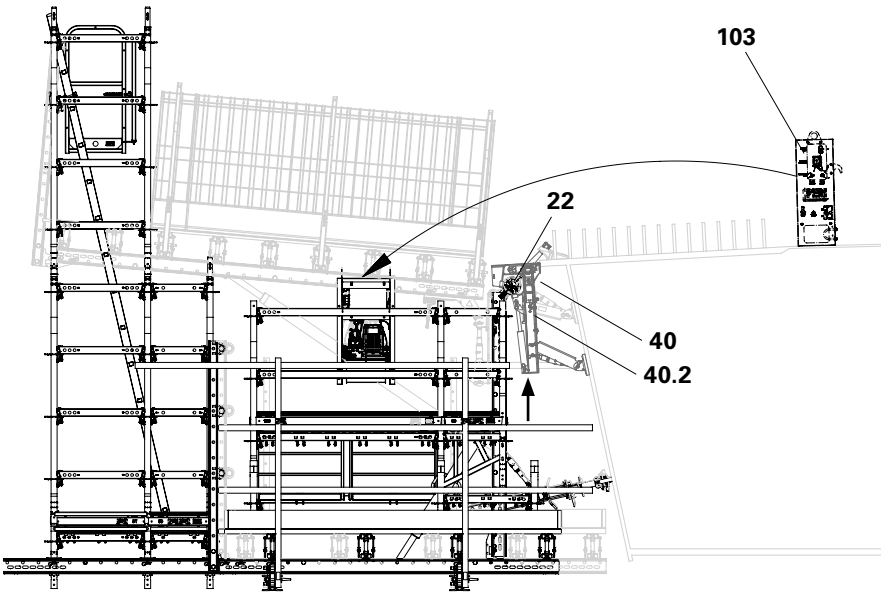


Fig. B8.18

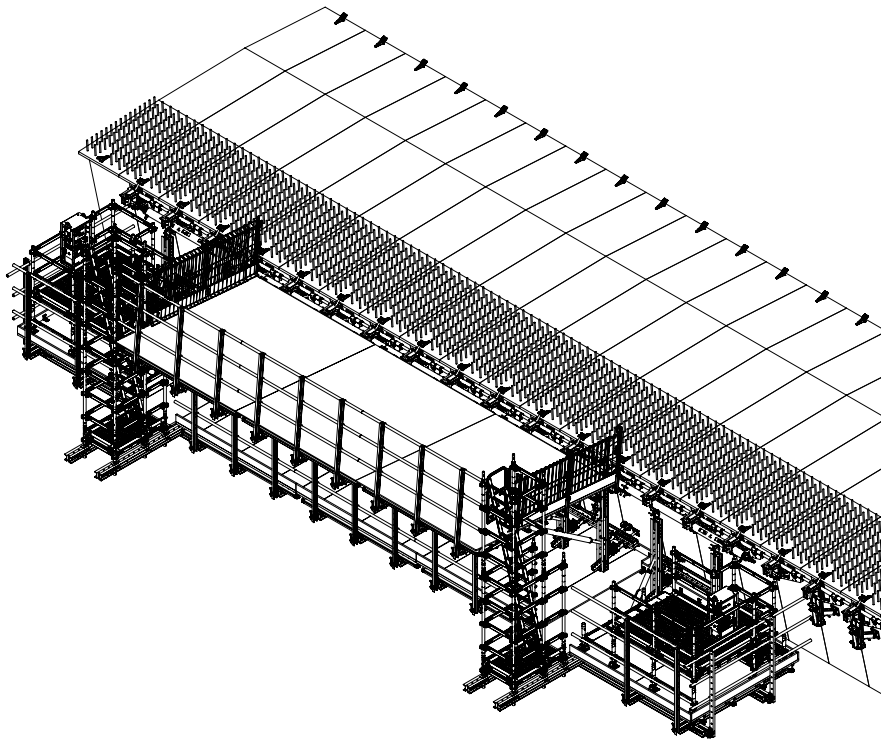


Fig. B8.19

Fitting the transport unit

Transport unit

- The roller-guided transport unit is used for ergonomic material transport, e.g. for Suspension Head VCT, bracing, cone socket.
- The Suspension Heads VCT and accessories required for further assembly are removed from the finishing platform and transported to the leading platform by way of the transport unit.

Components:

5 Suspension Head VCT
27 Head bracing
28 Fitting Pin Ø21x120 mm
29 Cotter Pin 4/1 ga
50 Steel Waler SRU
51 End Piece Transport Unit VCT
52 Traction cable
52.1 Insertion aid
55 Scaffold Tube Steel
67 Transport Unit VCT
68 Scaffold Tube Suspens VCT 50
68.1 Fixing screw
68.2 Insertion aid

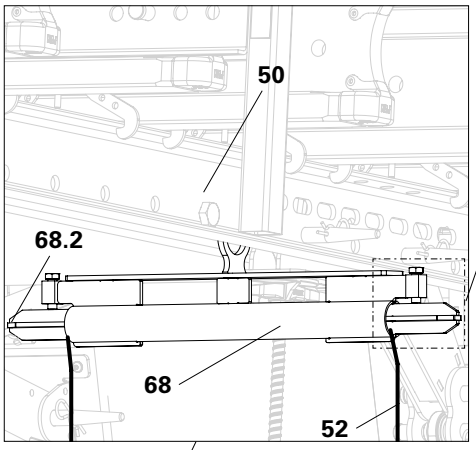


Fig. B9.01a

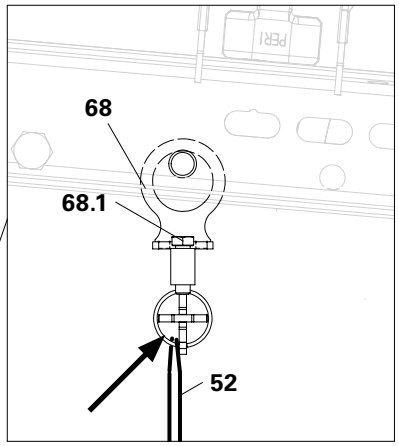


Fig. B9.01b

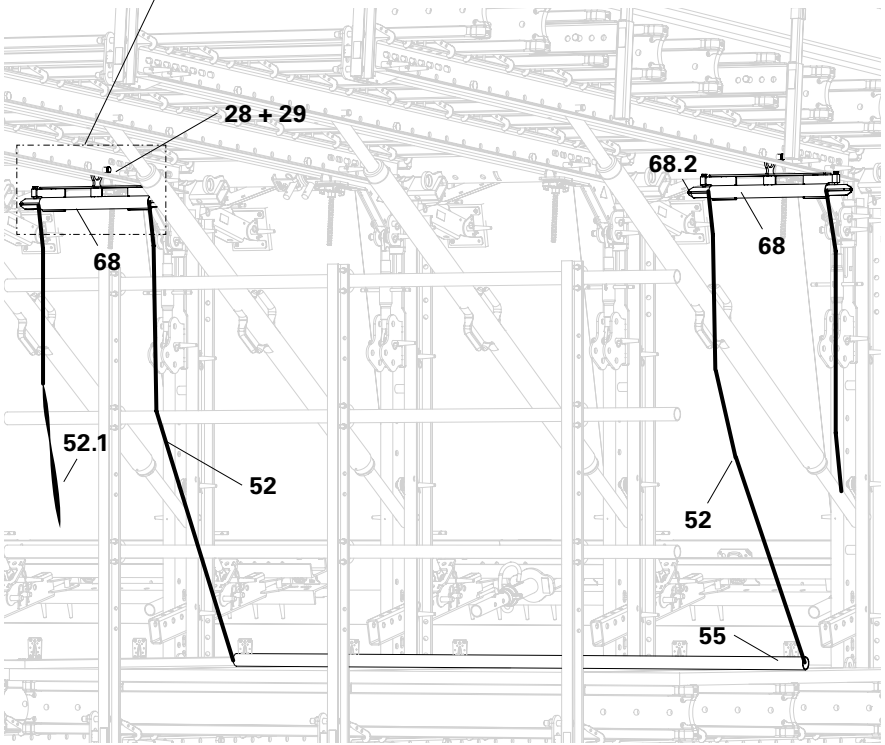


Fig. B9.01

Keep the traction cable (**52**) at least twice as long as the length of the transport unit.
Always loop the traction cable through the same opening of the Scaffold Tube Suspens VCT 50 (**68**) (lower left compartment)!
(Fig. B9.01b)

Fitting the transport unit rail

1. Fit the Scaffold Tube Suspens VCT 50 (**68**) to Steel Waler SRU at a distance of approx. 3 m with Fittings Pins Ø21x120 mm (**28**).
   Secure with Cotter Pin 4/1 ga (**29**).

(Fig. B9.01)

2. Attach the insertion aid (**52.1**), e.g. 5 mm of reinforcing steel, to the traction cable (**52**) and pull the traction cable through the Scaffold Tube Suspens VCT 50 (**68**) in the lower left compartment.
(Fig. B9.01b)
3. Pull the traction cable (**52**) through the scaffold tube (**55**) lying on the ground and through the 2nd Scaffold Tube Suspens VCT 50 (**68**).
(Fig. B9.01)
4. Lift the scaffold tube (**55**) between the Scaffold Tube Suspens VCT 50 (**68**), slide it onto the insertion aids (**68.2**) and clamp with a screw (**68.1**).
(Fig. B9.01 – Fig. B9.02)
5. Complete the transport unit step by step as described above.
(Fig. B9.02)
6. Slide the Transport Unit VCT (**67**) onto the rail.
(Fig. B9.03 + Fig. B9.03a)
7. Measure or check whether transversely attached Suspension Heads VCT (**5**) are able to move – in the event of a collision, shift Scaffold Tube Suspens VCT 50 (**68**) in the Steel Waler SRU (**50**).
(Fig. B9.05 – Fig. B9.06a)

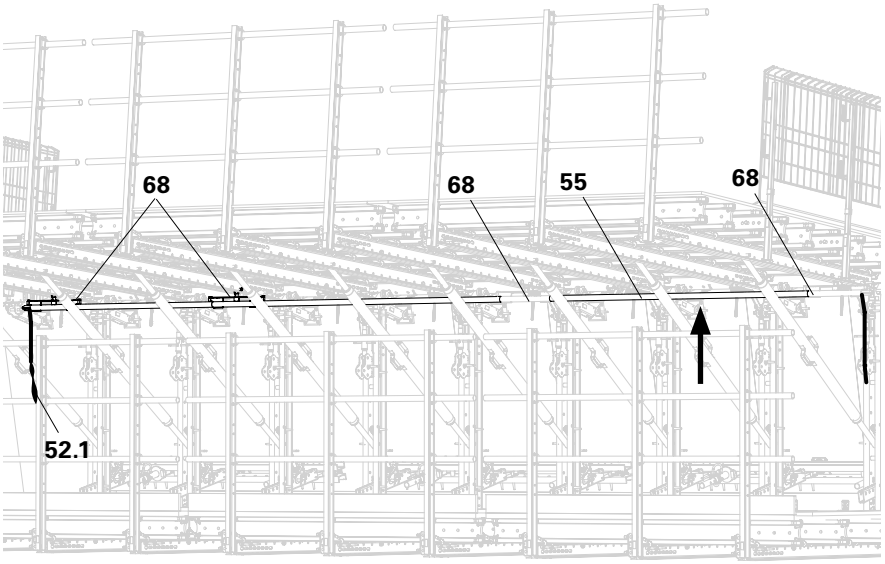


Fig. B9.02

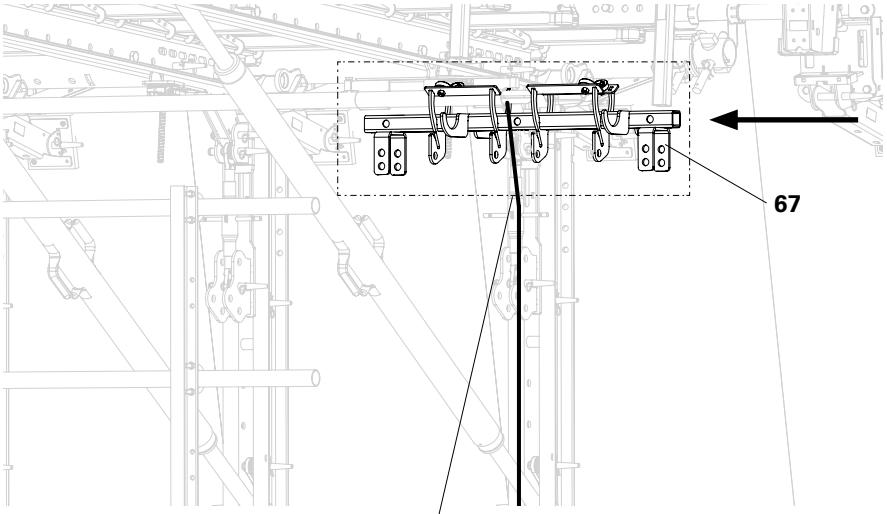


Fig. B9.03

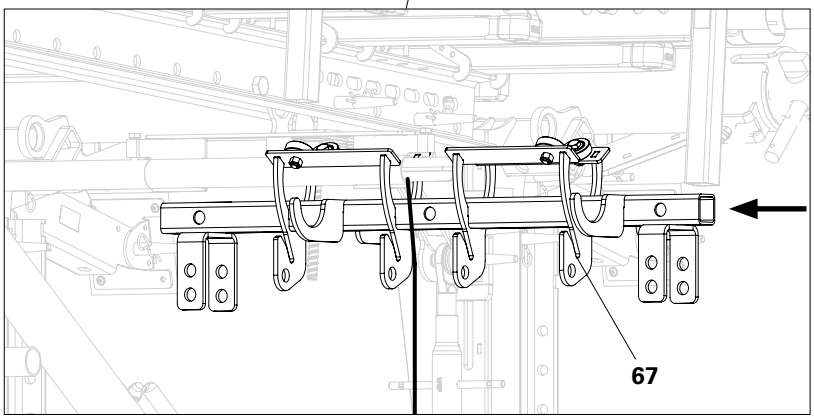


Fig. B9.03a

8. Place both End Pieces Transport Unit VCT (**51**) with an inserted traction cable on the insertion aid (**68.2**) of the Scaffold Tube Suspens VCT 50 (**68**) and clamp with the fixing screw (**68.1**).
(Fig. B9.04 + Fig. B9.04a)
9. Knot the ends of the traction cable (**52**) to the Transport Unit VCT (**67**).
→ The Transport Unit VCT can now be moved by pulling on the traction cable.
(Fig. B9.04a)

- Are all fixing screws (**68.1**) tightened?
- Are all bolts secured with cotter pins?

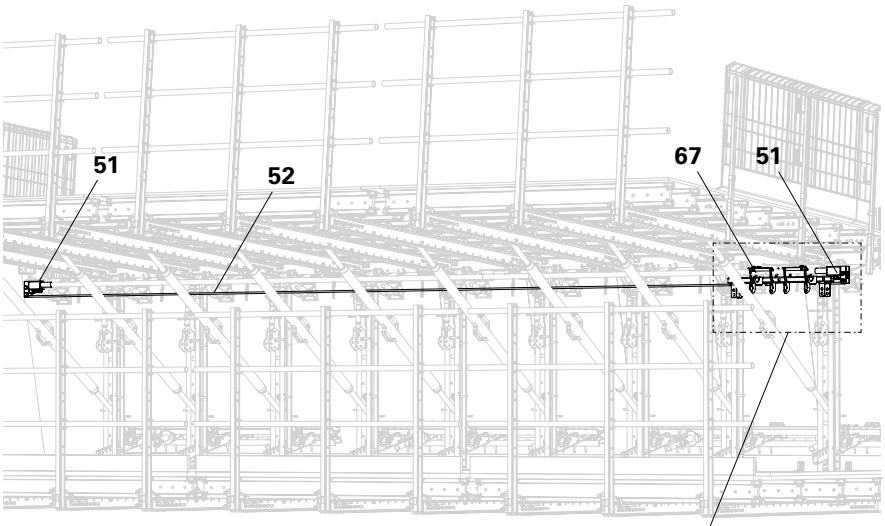


Fig. B9.04

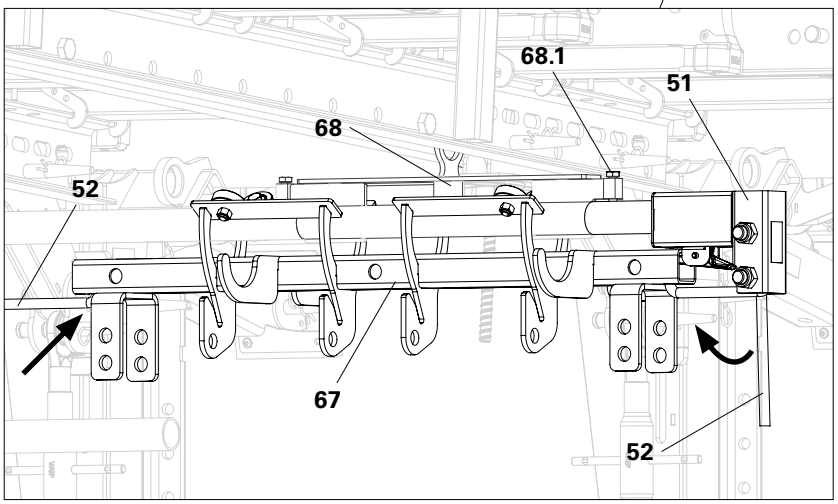


Fig. B9.04a

Can the transversely attached Suspension Heads VCT (**5**) and head bracing (**27**) be shifted freely?
(Fig. B9.05 – Fig. B9.06a)

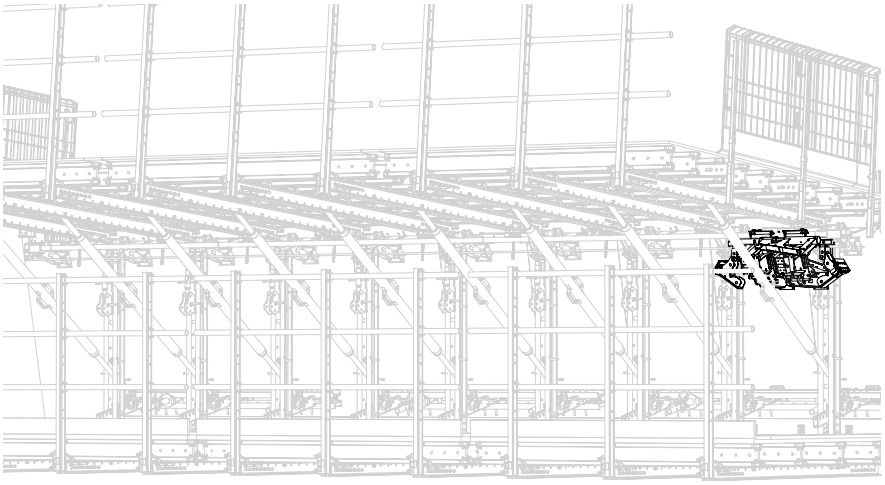


Fig. B9.05

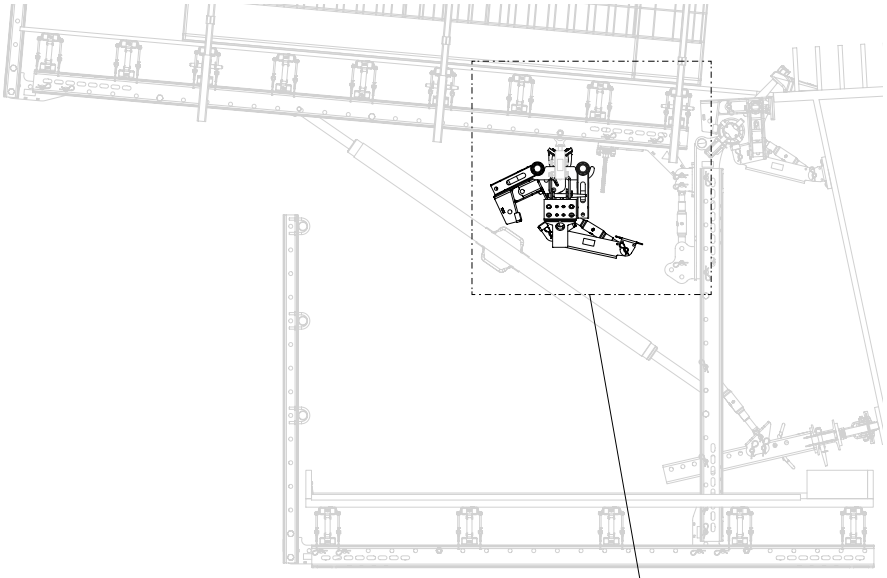


Fig. B9.06

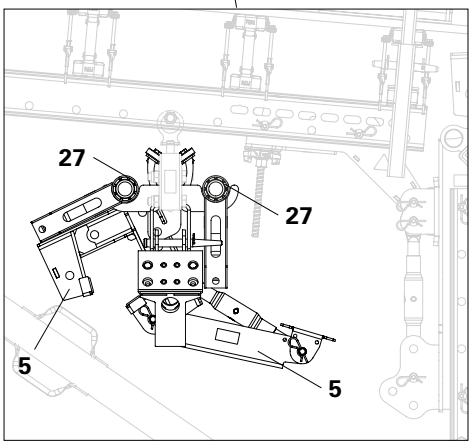


Fig. B9.06a

Extending the rail for the leading and finishing platform

1. Extend Girders VT 20K (**56**) of the cantilevered formwork at the front using timber straps and Girders VT 20K (**56**).
2. Alternatively, 2x 4 x 19 cm planks can be inserted under the formlining at the side of Girder VT 20K to extend it. Screw the planks to the Girder VT 20K according to the project specifications.
3. Fit Steel Walers SRU (**50**) under the extended Girders VT 20K (**56**) and mount with Hook Strap Uni HBU 20-24 (**57**).
4. Fit additional Scaffold Tube Suspens VCT 50 (**68**) with Fitting Pins Ø21x120 mm (**28**) and secure with Cotter Pins 4/1 ga (**29**).
5. If necessary, extend the traction cable (**52**) and pull it through the Scaffold Tube Steel (**55**), additional Scaffold Tube Suspens VCT 50 (**68**) and the end piece of Transport Unit VCT (**51**).
6. Extend the rail with Scaffold Tube Steel (**55**) and connect with Scaffold Tube Suspens VCT 50 (**68**).
7. Clamp the dismantled end piece of Transport Unit VCT (**51**) to the additional Scaffold Tube Suspens VCT 50 (**68**) with screw (**68.1**).
8. Knot the traction cable (**52**) to Transport Unit VCT (**67**).

(Fig. B9.07 + Fig. B9.07a)

Components:

28 Fitting Pin Ø21x120 mm
29 Cotter Pin 4/1 ga
50 Steel Waler SRU
51 End Piece Transport Unit VCT
52 Traction cable
55 Scaffold Tube Steel
56 Girders VT 20K
57 Hook Strap Uni HBU 20-24
67 Transport Unit VCT
68 Scaffold Tube Suspens VCT 50
68.1 Fixing screw

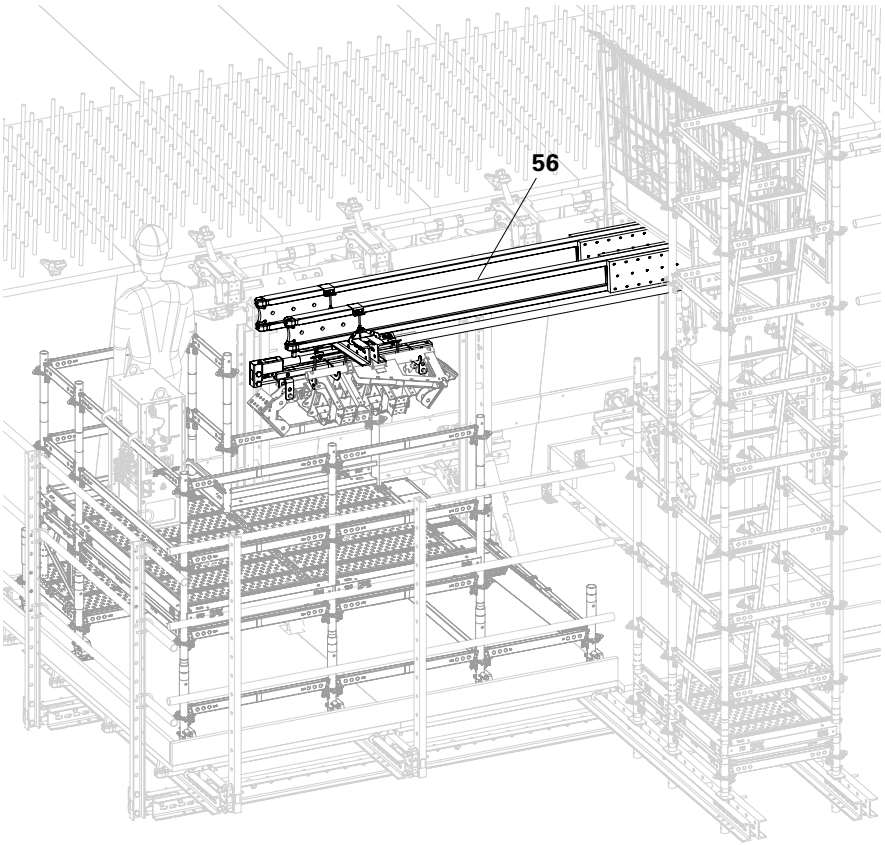


Fig. B9.07

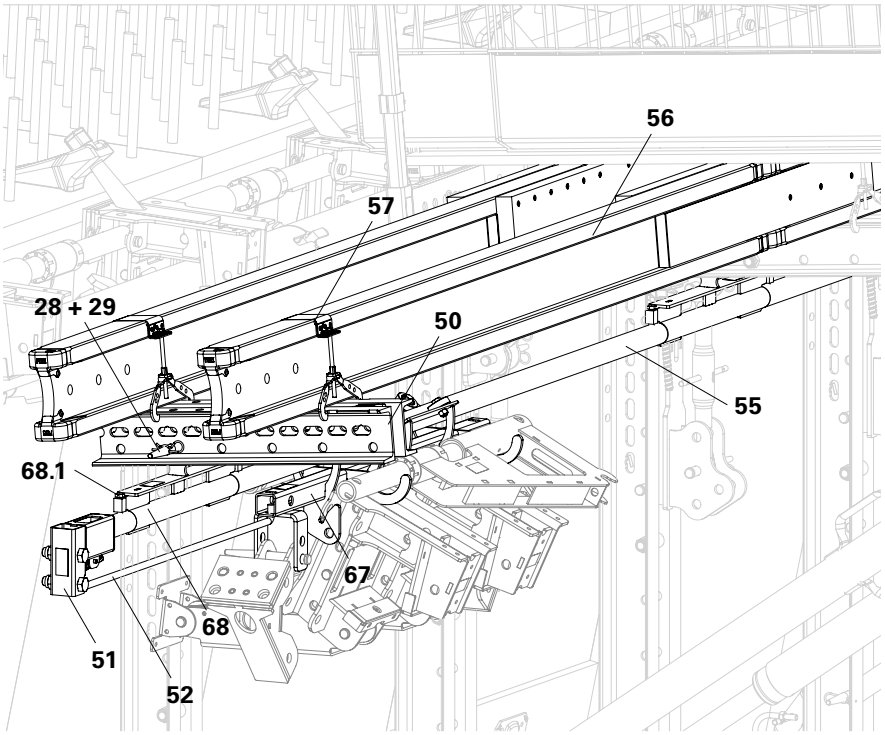


Fig. B9.07a

Shuttering the infill area at the anchor bracket

- Before concreting, the infill area formwork (**62**) between the prefabricated cantilevered formwork (**39**) and the bridge flange needs to be produced on site.
- The infill area can be covered with single or double shuttering boards (e.g. open formwork with rough-sawn board cladding).
- The head bracing (**27**) and the Girder VT 20K (**56**) support the formwork in the infill area (**62**).
- Concrete thicknesses of d= 55 cm can be formed in this infill area.

Components:

1	Cone Bolt VCT M30
5	Suspension Head VCT
27	Head bracing
39	Cantilevered formwork (assembly)
39.1	Formlining for cantilevered formwork P1
56	Girders VT 20K
57	Hook Strap Uni HBU 20-24
62	Infill area formwork
62.1	Formlining strip P2
62.2	Filler strip P3
62.2a	Filler strip P3 (3-part)
62.2b	Filler strip P3 (3-part)
62.2c	Filler strip P3 (3-part)
62.3	Base plate G1
62.3a	Compensation strip
62.3b	Compensation strip
62.4	Compensation plank (provided on site)
62.5	Support board (provided on site)

Fitting compensation planks

1. Saw a compensation plank to approx. 2.5 x 11.5 cm (w x h) (**62.4**) on site.
2. Slide the compensation plank (**62.4**) onto Girder VT 20K (**56**) between the hook straps (**57**) and fit with nails or wood screws.

(Fig. B10.01 – Fig. B10.01b)

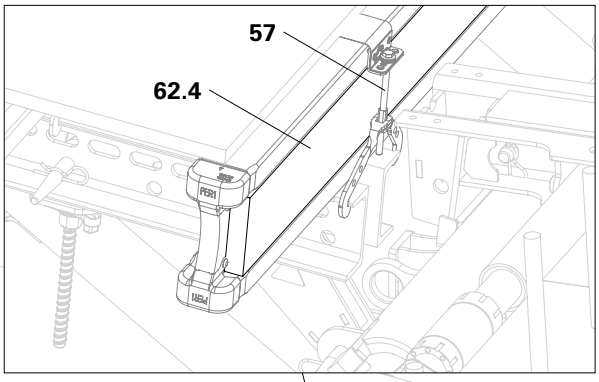


Fig. B10.01a

Fig. B10.01

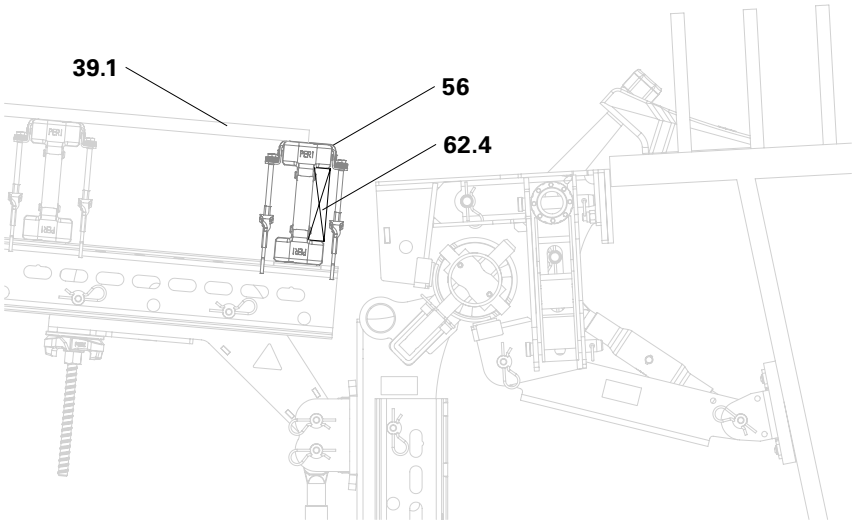


Fig. B10.01b

- The base plate G1 (**62.3**) is placed on the support board (**62.5**).
- The formlining strip P2 (**62.1**) sits on top of this.
- It is positioned in the same plane as the formlining for cantilevered formwork P1 (**39.1**).

(Fig. B10.02b)

Fitting the support boards

1. Saw 4x support boards to approx. 4 x 18 cm (w x h) (**62.5**) on site for base plate G1 (**62.3**).
2. Support boards (**62.5**) are fitted between the hook straps (**57**).
3. Lower the support board (**62.5**) by the thickness of the base plate G1 (**62.3**) and fit with wood screws.
   → The formlining strip P2 (**62.1**) and cantilevered formwork P1 (**39.1**) are in the same plane.

(Fig. B10.02 – Fig. B10.02b)

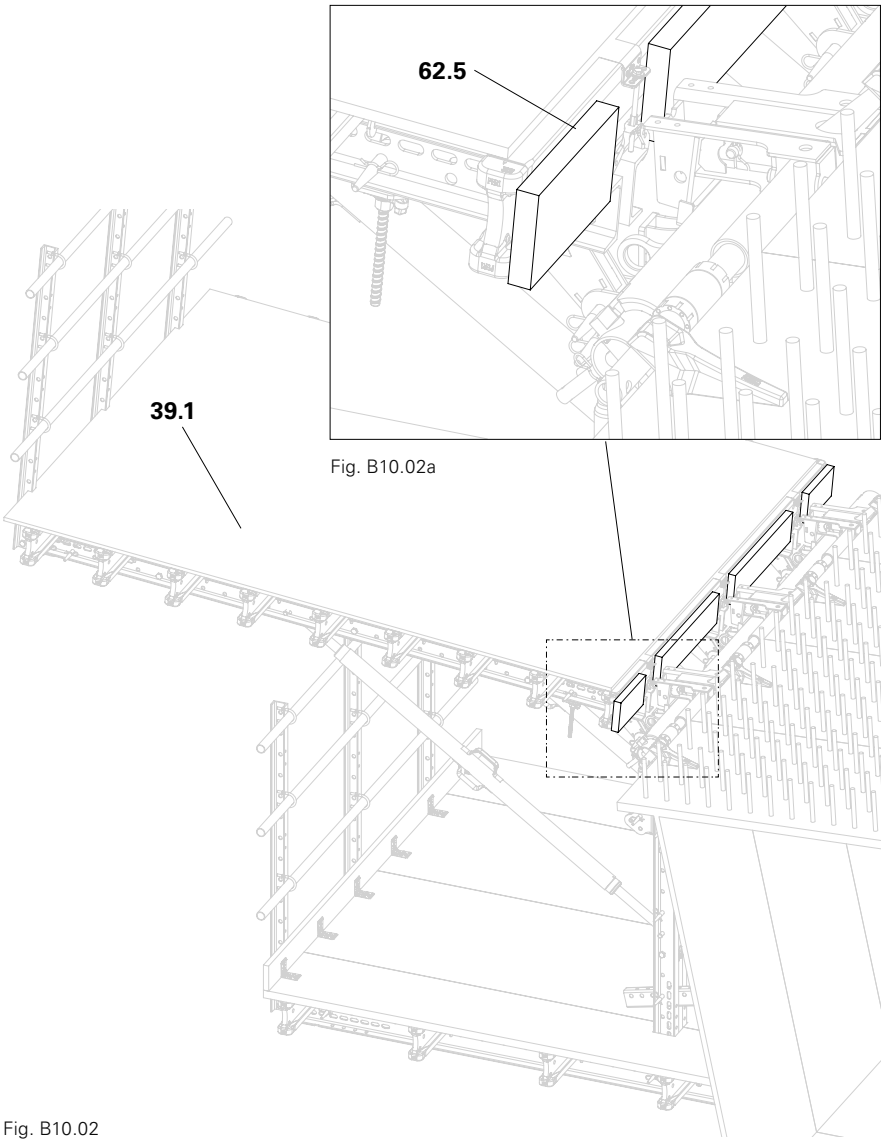


Fig. B10.02a

Fig. B10.02

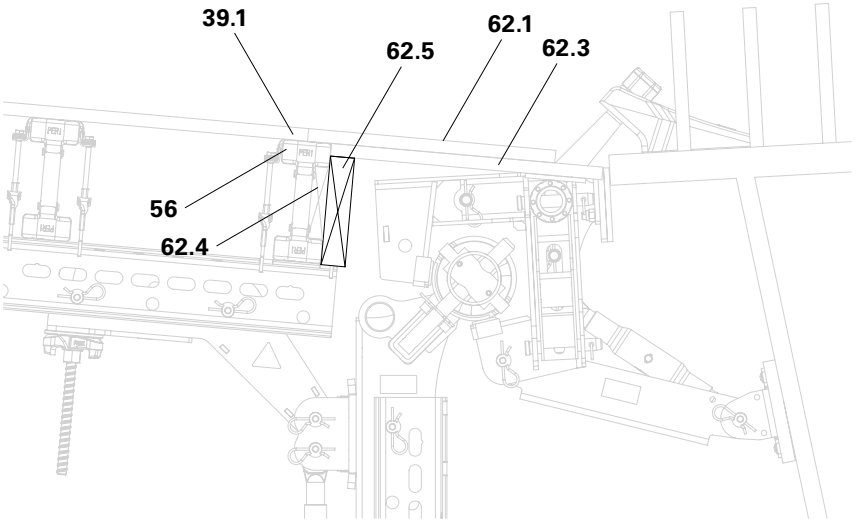


Fig. B10.02b

Producing base plate G1

- Base plate G1 (**62.3**) is project-specific and can be reused for the duration of the project.
- It serves as an additional support plate for the formlining strips P2 (**62.1**) and the filler strip P3 (**62.2**) and is therefore always required.
- Base plate G1 (**62.3**) rests on the head bracing (**27**) between the Suspension Heads VCT (**5**) and the support board (**62.5**) mounted on Girder VT 20K (**56**).
- Only ever place the base plate G1 (**62.3**) on top, do not fix it in place with nails etc.!
- This could hinder the process of deshuttering the cantilevered formwork.
- Base plate G1 has a recess for the Suspension Head VCT.
- The distance, dimension (a) between base plates G1, is approx. 5 - 10 cm.
  → They can therefore be used flexibly.
- Base plates G1 sit flush with Girder VT 20K (**56**) on the cantilevered formwork. The distance, dimension (b) to the steel support flange, is approx. 0.5 - 1.0 cm.

(Fig. B10.03 – Fig. B10.03c)

- The different distances between base plate G1 (**62.3**) and the head bracing (**27**) are compensated for with thin compensation strips (**62.3a + 62.3b**).
- Attach compensation strips (**62.3a + 62.3b**) to base plate G1 (**62.3**) from below

(Fig. B10.03 – Fig. B10.03c)

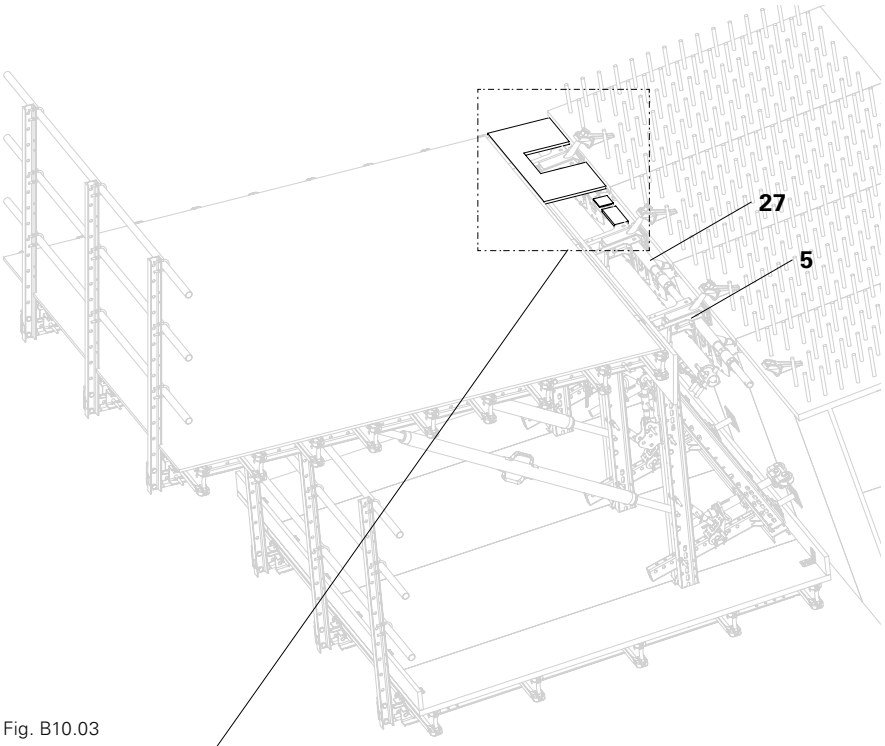


Fig. B10.03

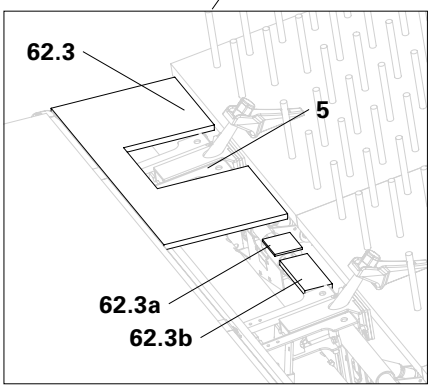


Fig. B10.03a

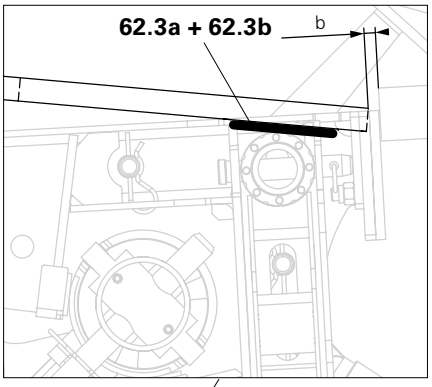


Fig. B10.03c

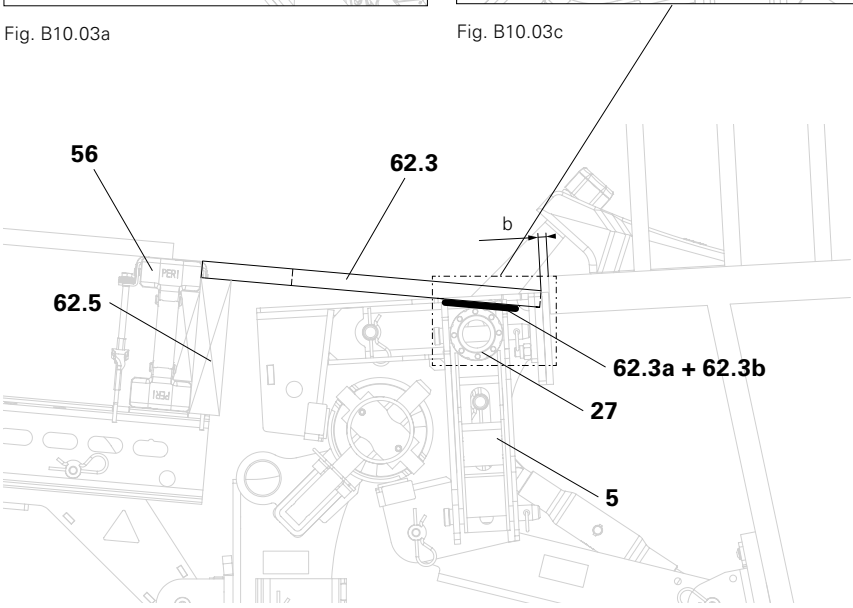


Fig. B10.03b

Producing and setting out the base plate

1. Saw base plate G1 (**62.3**) around Suspension Head VCT (**5**) using the dimensions specified for the project. Base plate G1 (**62.3**) rests on the head bracing (**27**) and the Girder VT 20K (**56**) together with compensation strips (**62.3a + 62.3b**).

(Fig. B10.04a)

2. Fit thin compensation strips (**62.3a + 62.3b**) under base plate G1 (**62.3**) using wood screws.
   → Base plate G1 rests on the head bracing (**27**).

(Fig. B10.04b)

3. The length of base plate G1 (**62.3**) is determined in a project-specific manner by way of dimension (a), approx. 5 - 10 cm, and the distance between the Suspension Heads VCT (**5**).

(Fig. B10.03 – Fig. B10.03b)

4. Set out the base plates G1 (**62.3**) at intervals of approx. 5 - 10 cm, dimension (a).
5. Place base plate G1 (**62.3**) flush against Girder VT 20K (**56**) of the cantilevered formwork and maintain a distance of approx. 0.5 - 1.0 cm, dimension (b), from the steel support flange.

(Fig. B10.03b)

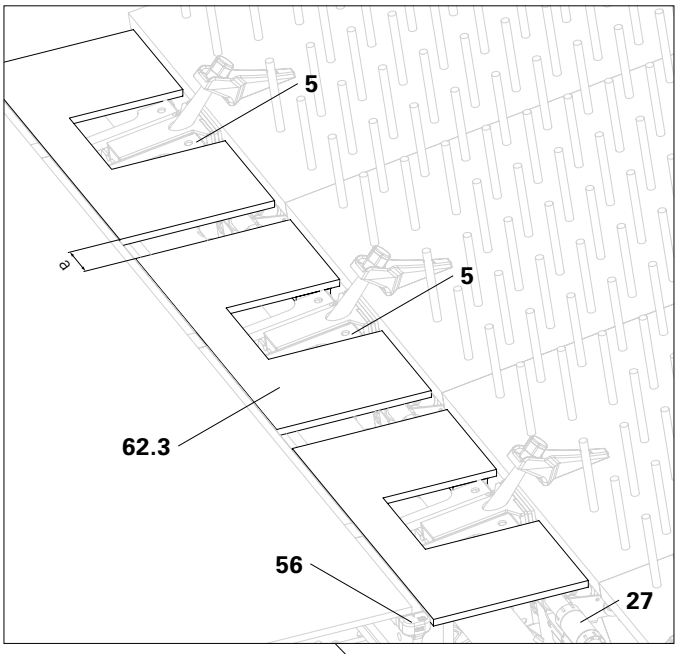


Fig. B10.04a

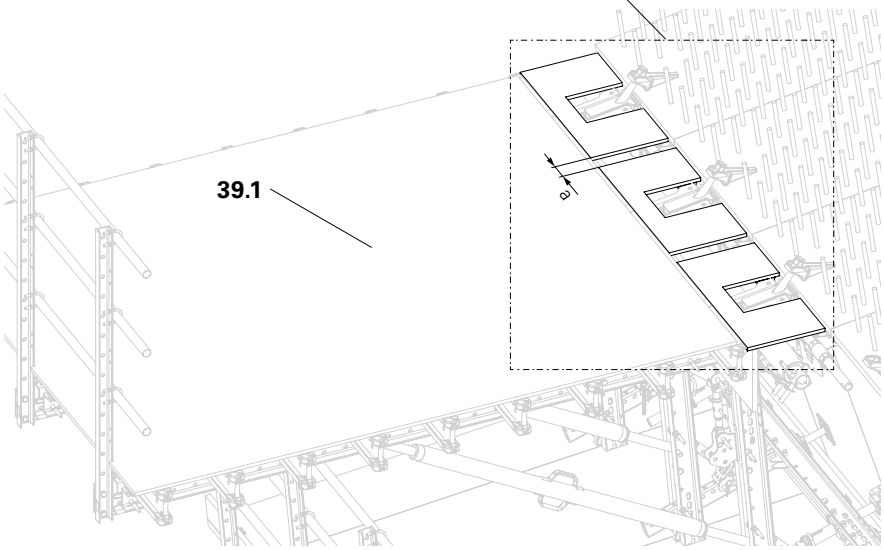


Fig. B10.04

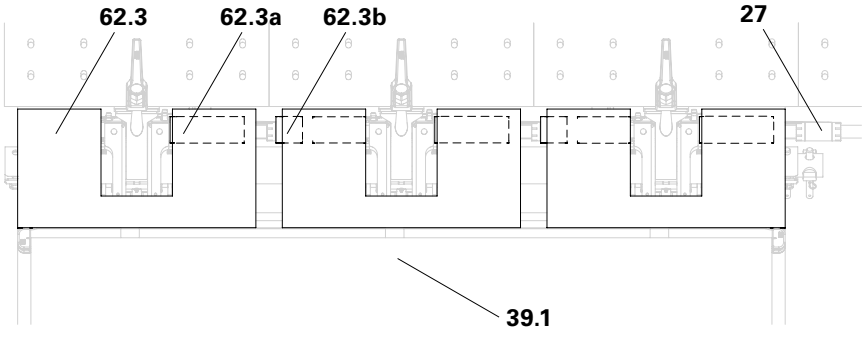


Fig. B10.04b

Setting out continuous formlining strips

1. Saw a continuous formlining strip P2 to size on site (**62.1**). Formlining strip P2 (**62.1**) is in contact with the formlining for cantilevered formwork P1 (**39.1**) and the Cone Bolts VCT M30 (**1**).

(Fig. B10.05 + Fig. B10.05a)

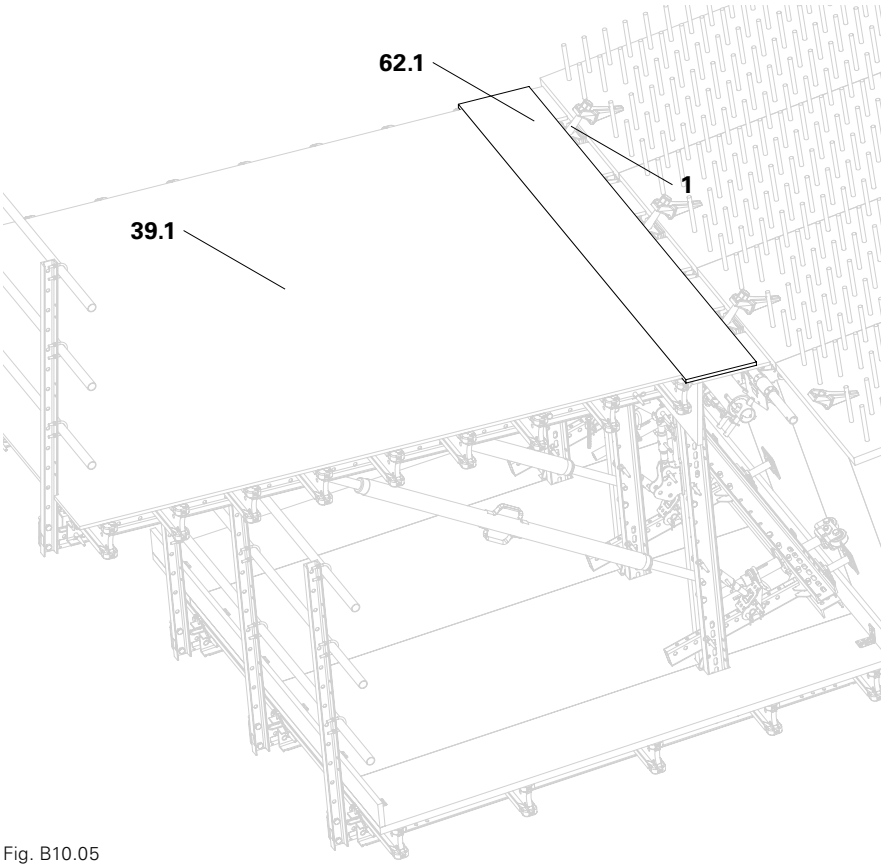


Fig. B10.05

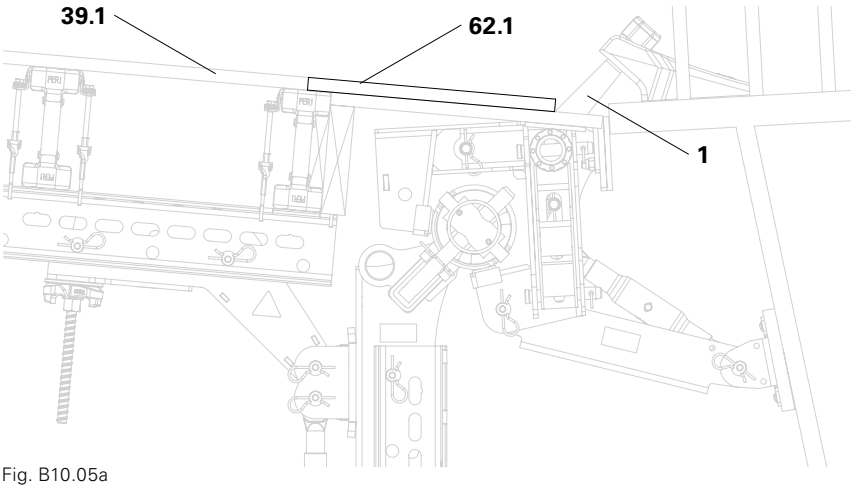


Fig. B10.05a

- Filler strips to be produced on site for between the Cone Bolts VCT M30 (**1**) can be sawn in a single part or several parts.
- PERI recommends that the filler strips consist of 3 parts. The front sides of the filler strips must be tailored as precisely as possible to Cone Bolt VCT M30 (**1**).

Tailoring the filler strips

1. Saw filler strip P3 (62.2a, 62.2b, 62.2c) to the project-specific centre-to-centre dimension between 2 Cone Bolts VCT M30 (**1**).
2. Place filler strip P3 (62.2a, 62.2b, 62.2c) between the Cone Bolts VCT M30 (**1**) and tailor it to the cone.

(Fig. B10.06 – Fig. B10.06c)

As an alternative to the 3-part filler strips (62.2a, 62.2b, 62.2c), a single-part filler strip (**62.2**) can be used.

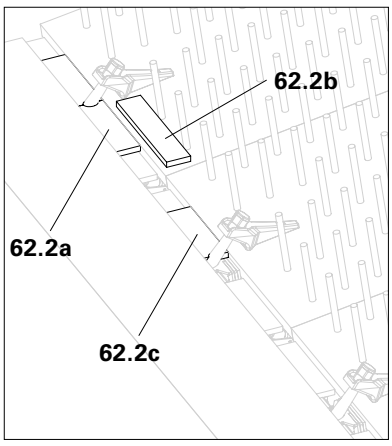


Fig. B10.06a

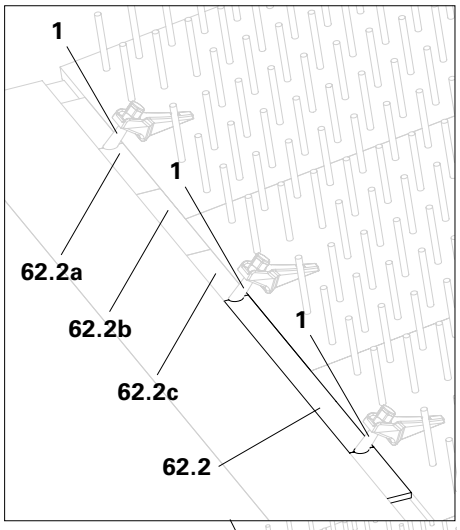


Fig. B10.06b

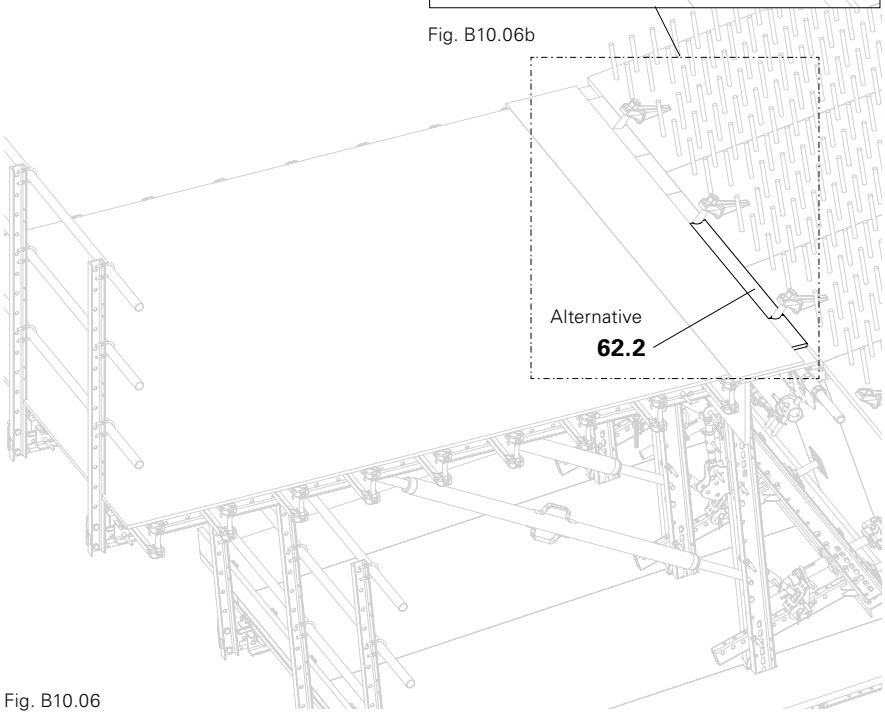


Fig. B10.06

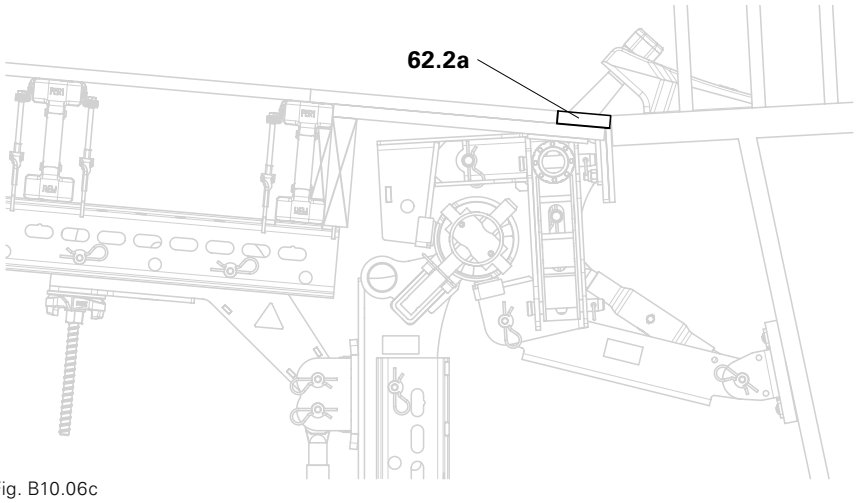


Fig. B10.06c

Protecting the steel structure (wood)

- The roller unit (**15**) is supported at right angles to the steel body of the bridge.
- To protect the steel structure when the roller unit (**15**) is in motion, protective strips with magnets (**90**) are attached on site.
- The protection is fitted to the track of the rollers. This prevents tracing from appearing on the corrosion-protected steel structure.
- The protective strips with magnets (**90**) are secured with fastening cables and carabiners (**90.2**) to prevent them from falling.
  → Protected pressure point with magnetic board.
  → The roller unit runs and sits on protective strips.
  → Load distribution for high concreting loads.

Components:

15 Roller Unit VCT
90 Protective strips with magnets
90.1 Pot magnet Ø 32 mm
90.2 Fastening cable with carabiner
90.3 Washer ISO 7093-1-16-200HV-ga
90.4 Screw M 5 x 12 mm
90.5 Protective film

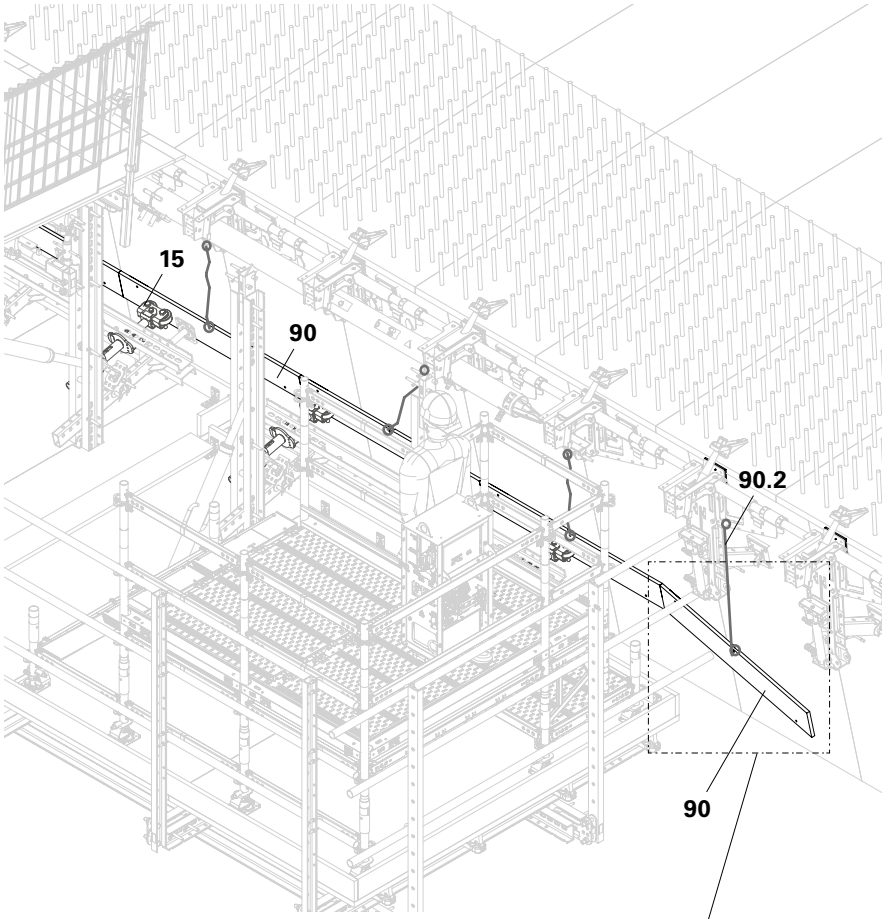


Fig. B11.01

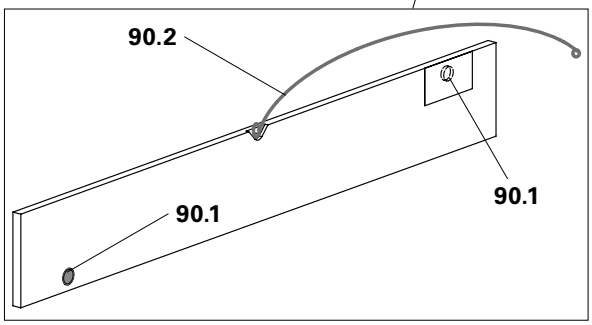


Fig. B11.01a

B11 Protecting the steel structure

Producing protective strips with magnets on the construction site

1. Saw protective strips to size on site. They should measure approx. 150 x 25 cm.
2. Mark 2x drilling positions diagonally.
3. Make 2x blind holes with a Forstner bit Ø 35 mm 7.5 mm.
4. Drill a Ø 12 mm hole in the centre of the blind hole.
5. Insert a pot magnet Ø 32 mm and fit from behind with Washer ISO 7093-1-16-200HV-ga (article no. 127036) and screw M 5 x 12 mm.
6. Stick the protective film (fabric adhesive tape, etc.) onto the pot magnet Ø 32 mm.
   → This prevents damage to the steel structure.

(Fig. B11.02)

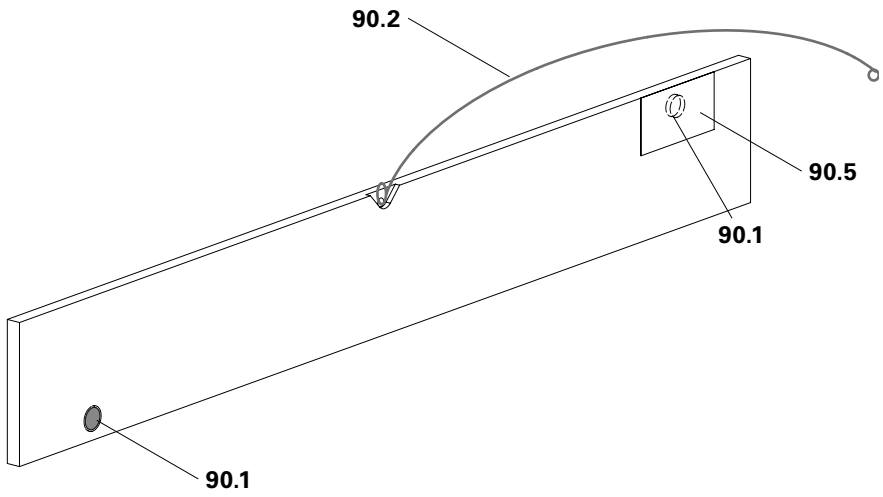


Fig. B11.02

Step-back procedure

- In the construction of steel composite bridges, the concreting sections are often concreted in sections using what is known as the step-back method. The concreting sections are poured using the alternating sequential method, which means that the composite track must pass under a section that has already been concreted in order to reach the next section to be concreted.
- Do not remove the Cone Bolt VCT M30 (**1**) set in concrete and the screwed-on Cone Socket VCT (**5**) until all necessary movements have been completed.
- Premature removal of the Cone Bolt VCT M30 (**1**) could mean that it is no longer possible to screw it correctly into the M30 hexagon nut (**2**) set in concrete due to dirt build-up in the tie hole.

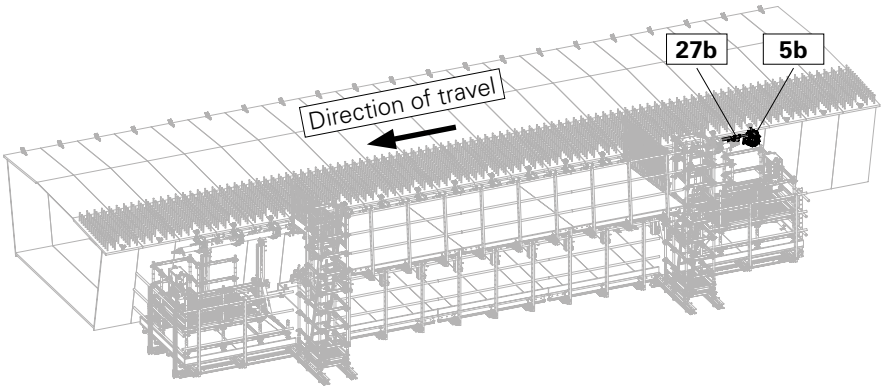


Fig. B12.01

Requirements:

- Concreted cantilever slab.
- The formwork elements of the cantilevered formwork have been struck.
- Front side guardrails have been removed. Collisions involving the cantilever slab are impossible.
- The Cone Bolt VCT M30 (**1**) and Cone Socket VCT (**5**) are located in the concrete section
- Access to the working platform must be guaranteed at all times.

Components:

1 Cone Bolt VCT M30
4 Cone Socket VCT
5 Suspension Head VCT
22 Drive Rail VCT
27 Head bracing

- If it is necessary to pass through a concreted section at a later stage, the suspension heads can be removed.
- The cone socket with suspension head must be left in place within the section.

Moving beneath the cantilever slab

Suspension Heads VCT (**5**) and head bracing (**27b**) are mounted or dismounted from the leading and finishing platform (possibly from a lower position on the operating scaffold).

Moving in the direction of travel

1. After concreting, remove the Suspension Heads VCT (**5b**) and head bracing (**27b**) that are no longer required, from the finishing platform, for example.
2. Move the dismantled Suspension Heads VCT (**5b**) and head bracing (**27b**) to the leading platform as viewed from the direction of travel and fit them in place.
3. Move the VCT Composite Track to the concreting section.
4. Shutter and concrete the section.
5. Once the concrete has hardened sufficiently, remove the formwork from the concreted area.
   → The VCT Composite Track can now be moved again.

Moving against the direction of travel

1. Remove the Suspension Heads VCT (**5a**) and head bracing (**27a**) that are no longer required from the leading platform, for example.
2. Move the dismantled Suspension Heads VCT (**5a**) and head bracing (**27a**) against the direction of travel to the finishing platform and fit them in place.
3. Move the VCT Composite Track to the concreting section (gap).
4. Shutter and concrete the section.
5. Once the concrete has hardened sufficiently, remove the formwork from the concreted area.
   → The VCT Composite Track can now be moved again.

→ Move the VCT Composite Track using the Drive Rail VCT (**22**) to the next concreting section in the usual manner until all gaps are closed.

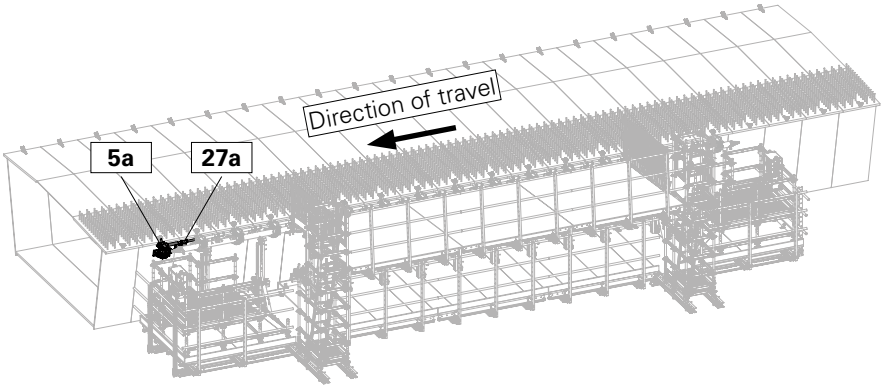


Fig. B12.02

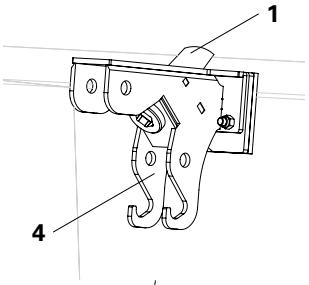


Fig. B12.03a

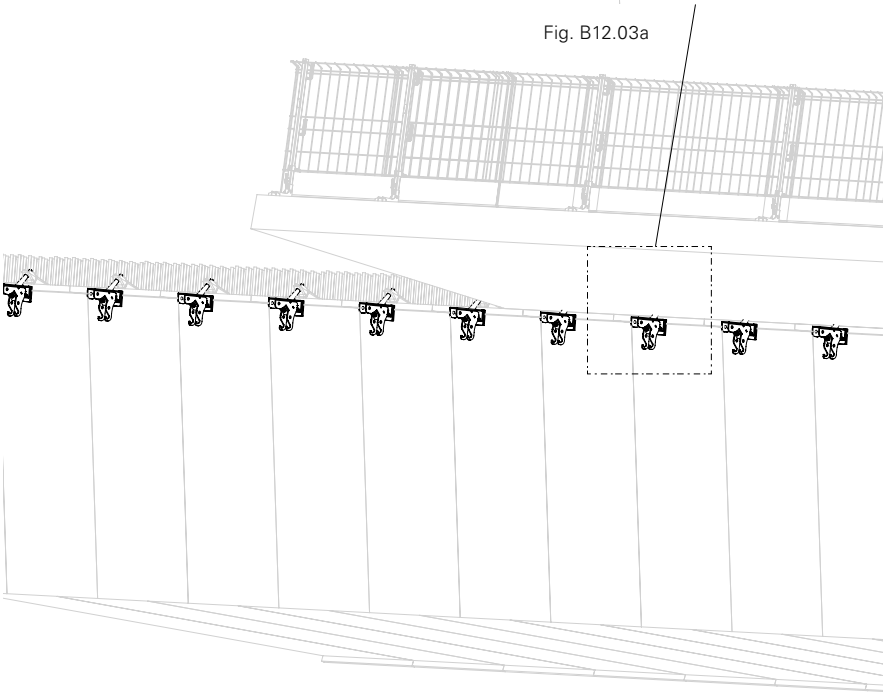


Fig. B12.03

Filler strips between cantilevered formwork must be tailored to the respective concreting section.

Components:

39	Cantilevered formwork (assembly)
42	Cover Strip LPS 20x373
62.1	Formlining strip P2

Requirements:

- The formwork is in the correct position.
- All infill areas between the steel structure and cantilevered formwork have been completely closed.
- The infill areas around the Suspension Heads VCT have been closed.
- Infill areas between Cantilevered Formwork VCT (**39**) have been closed with formlining strips P2.

(Fig. C1.01)

- The threads of the Suspension Heads VCT have been closed or sealed with a sealing cap to prevent contamination by concrete.
- Cone Bolts VCT M30 (**1**) are have been lightly greased for later removal.
- Attach a sufficiently stable compensation element (intermediate element, e.g. Cover Strip LPS 20x373 (**42**), article no. 125945) to one side of the working platform to prevent it from slipping and to bridge the gaps between the working platforms.
- The formwork carriage is secured against unintentional displacement by the concrete pressure on the front side formwork.
  → The pawls of the front and rear drive rails rest against the suspension heads, see assembly instructions for the Rail Track VCT 300.

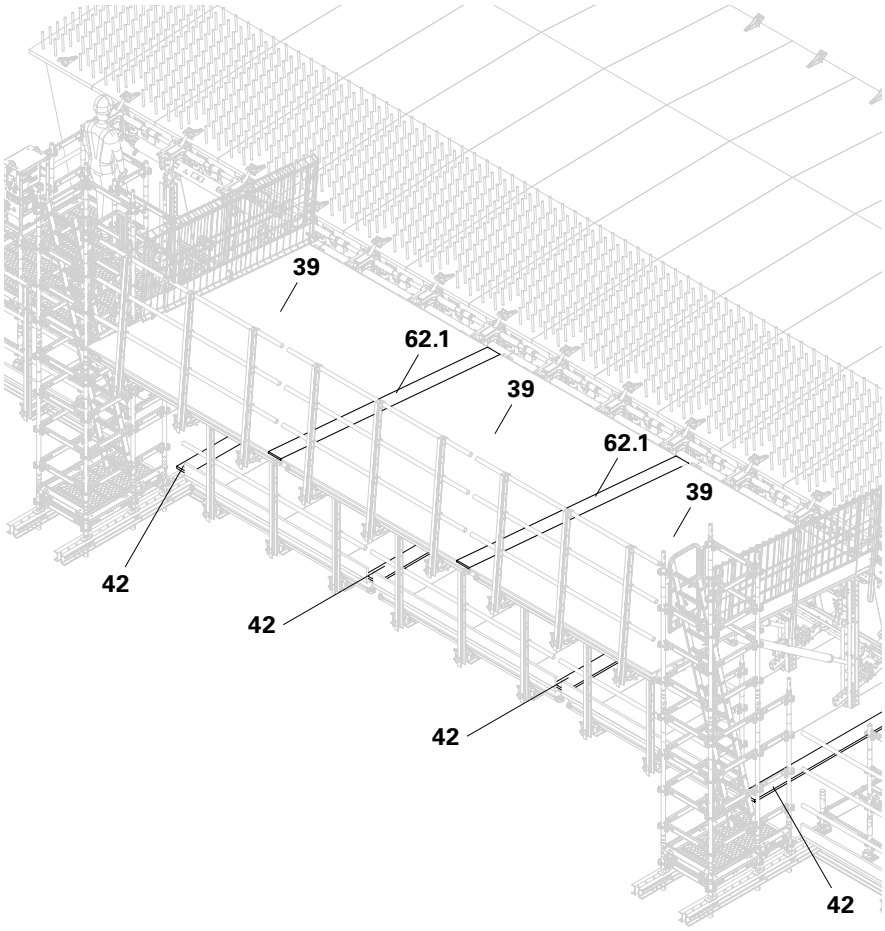


Fig. C1.01

Concreting position

- The suspension of the VCT Composite Track does not protrude over the upper edge of the superstructure concrete slab but is positioned below the upper edge of the superstructure slab.

→ Elimination of any obstacles permits the use of a vibrating beam during concreting.

→ If the desired surface finish requires it, a mobile smoothing machine can be used for machining and smoothing the concrete surface.

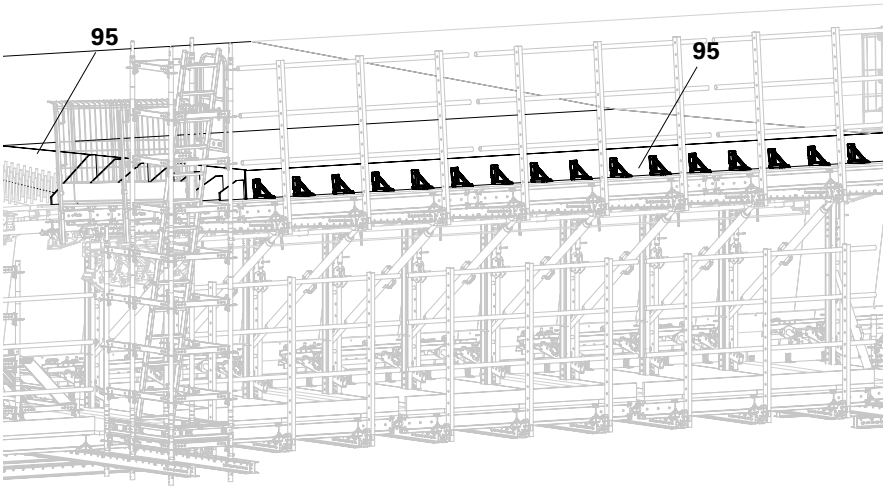


Fig. C2.01a

Components:

95	Formwork

Reinforcement/concreting:

- Assembly of the front and side formwork (**95**).

(Fig. C1.01 + Fig. C2.01a)

- Inserting the steel reinforcement and built-in parts.
- Clean the formwork surface if necessary.
- Concreting
  - → During the concreting process, pour the concrete in even layers.
  - → Prevent accumulation of concrete.
  - → The concreting process starts at the steel structure and ends at the cantilevers.

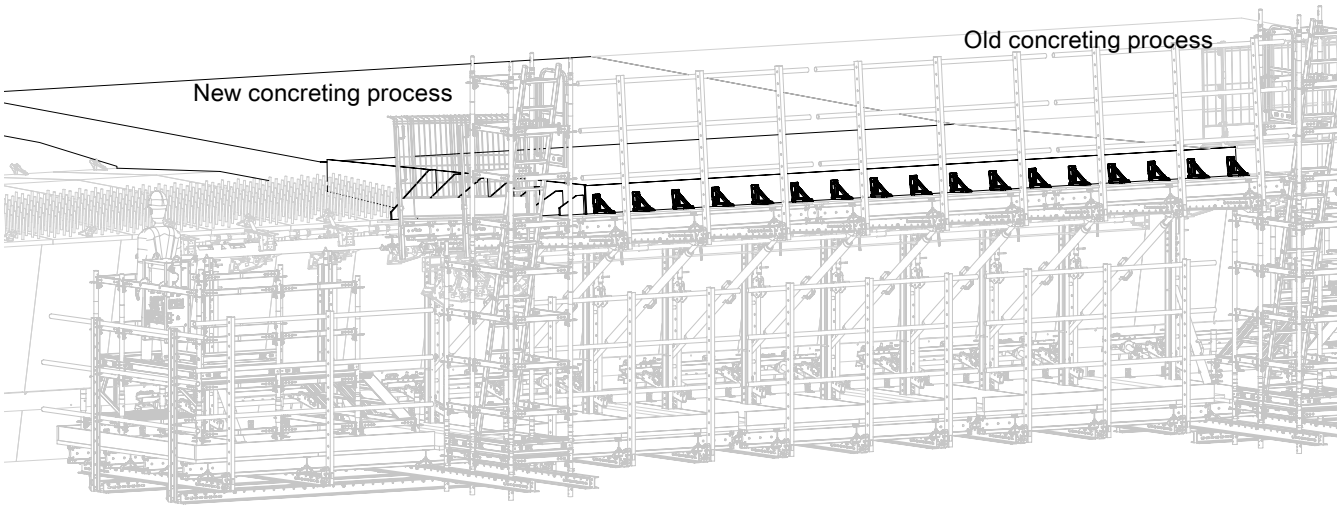


Fig. C2.01

Deshuttering the cantilevered formwork

Once the concrete has hardened, the concreting section can be deshuttered, see also "A7 Deshuttering" on page 39.

Warning

Risk of crushing when operating the Striking Lever VCT (**24**). This can lead to serious irreversible injuries to the hands.

⇒ Keep hands away from the danger zone.

⇒ Use the tool.

Components:

24 Striking Lever VCT
24.1 Wingnut Counterplate DW 15
25 Wrench Adapter VCT
35 Heavy Duty Spindle SLS 100-180
39 Cantilevered formwork (assembly)
50 Steel Waler SRU
105 Round steel

Deshuttering

1. Insert the Wrench Adapter VCT (**25**) into the wings of the Wingnut Counterplate DW 15 (**24.1**).
2. Turn the Wrench Adapter VCT (**25**) using a suitable tool (round steel bar (**105**), cordless screwdriver, etc.) and loosen the Wingnut Counterplate DW 15 (**24.1**).
   → The Striking Lever VCT (**24**) will lower somewhat and so will the cantilevered formwork (**39**) over its entire length.
3. If the cantilevered formwork has not dropped down far enough, screw in the Heavy-Duty Spindle SLS (**35**).
   → The cantilevered formwork (**39**) will be released and drop down further.

(Fig. C3.01 + Fig. C3.02)

If the cantilevered formwork does not detach from the concrete or does so only with difficulty, the cantilevered formwork can be easily detached using a crowbar between the Striking Lever VCT (**24**) and the Steel Waler SRU (**50**). (Fig. C3.02a)

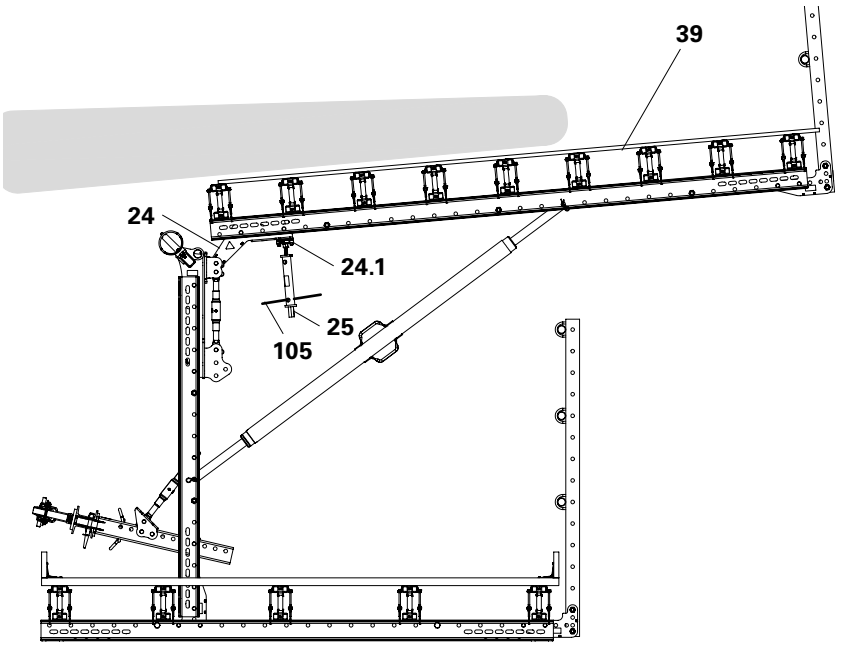


Fig. C3.01

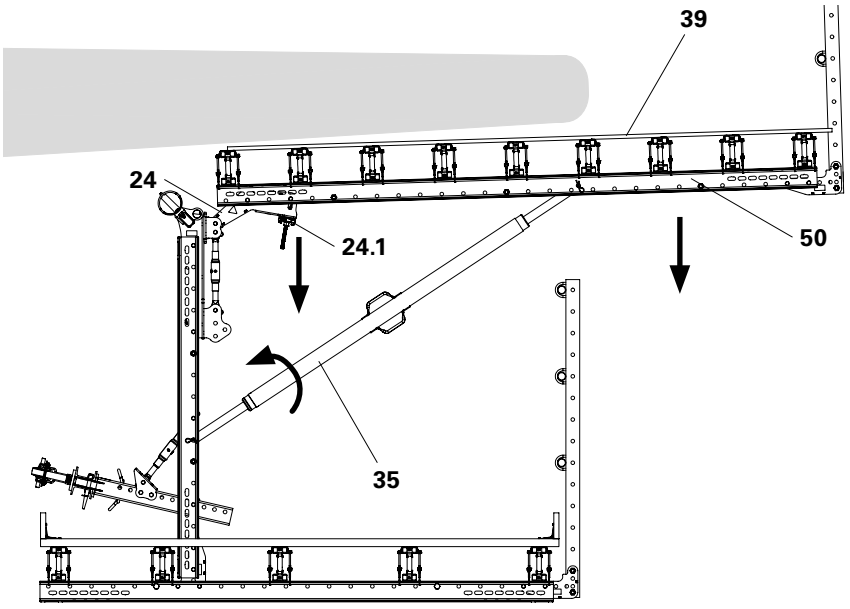


Fig. C3.02

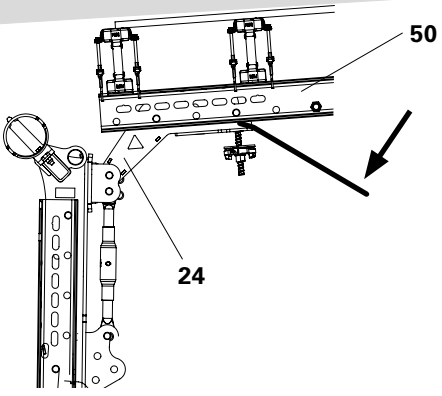


Fig. C3.02a

- Once the cantilevered formwork has been struck, the infill area separates from the cantilevered formwork.
- The infill area then needs to be struck.

(Fig. C3.04 + Fig. C3.04a)

Warning

The infill area formwork may fall down during removal. This can lead to serious, irreversible injuries.

⇒ Prevent the infill area formwork from falling down.

Components:

4 Cone Socket VCT
5 Suspension Head VCT
17 Head Bracing VCT 100
18 Head Bracing VCT 125
19 Head Bracing VCT 150
20 Spindle Head Bracing VCT
20.1 Nut Head Bracing VCT
21 Face Spanner VCT
39 Cantilevered formwork (assembly)
62.1 Formlining strip P2
62.3 Base plate G1

Deshuttering the infill area

1. From the finishing platform, loosen the Nut Head Bracing VCT (**20.1**) of the head bracing with the Face Spanner VCT (**21**).
   → This lowers and releases the Head Bracing VCT (**20**).
   → If necessary, loosen and remove base plate G1 (**62.3**)

(Fig. C3.03)

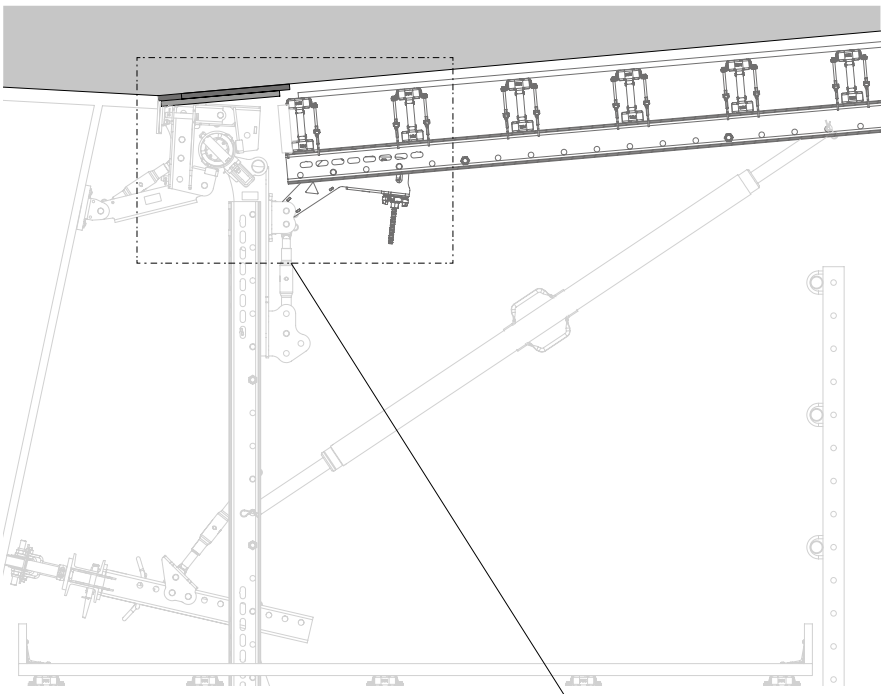


Fig. C3.04

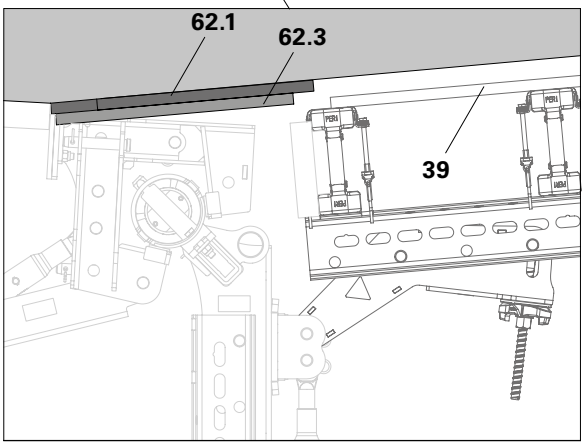


Fig. C3.04a

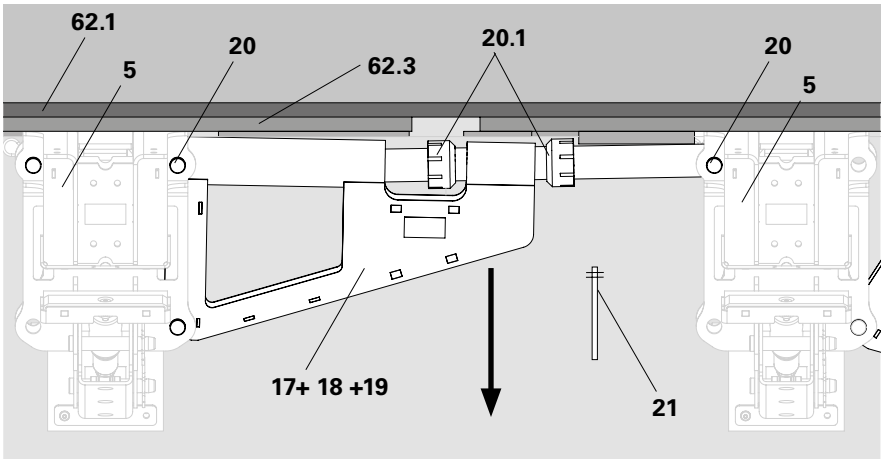


Fig. C3.03

2. Remove the bolt of the Spindle Head Bracing VCT (**20**) on the Suspension Head VCT (**5**).
3. Unscrew the Nuts Head Bracing VCT (**20.1**), pull the upper bolt on the neighbouring Suspension Head VCT (**5**) and lower and remove the Head Bracing VCT (**17/18/19**).

(Fig. C3.03 + Fig. C3.04b

4. Remove the Suspension Head VCT (**5**) from the Cone Socket VCT (**4**).

(Fig. C3.04c)

5. Remove base plate G1 (**62.3**) and formlining strip P2 (**62.1**) from the concrete.

→ Install base plate G1 and formlining strip P2 (**62.1**) during the next concreting section.

(Fig. C3.03 + Fig. C3.04d)

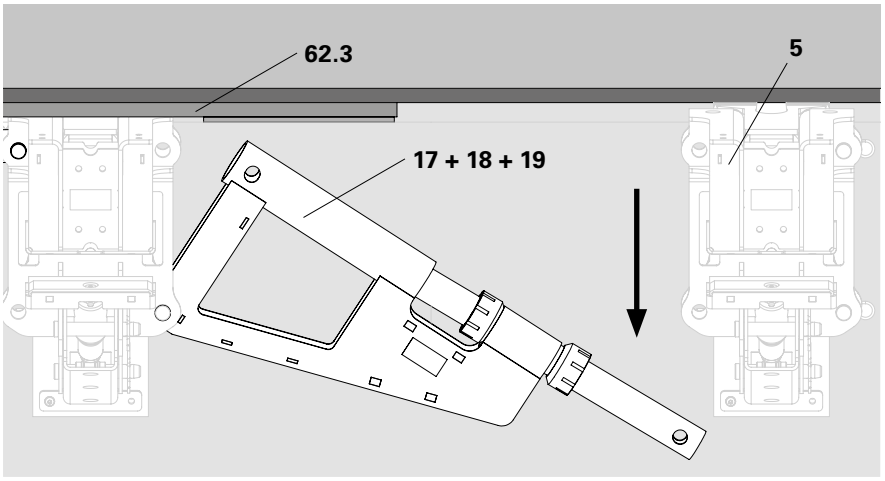


Fig. C3.04b

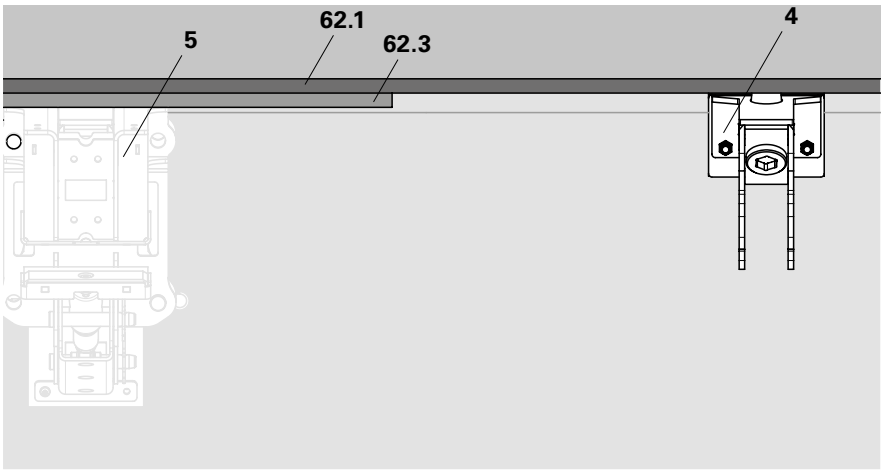


Fig. C3.04c

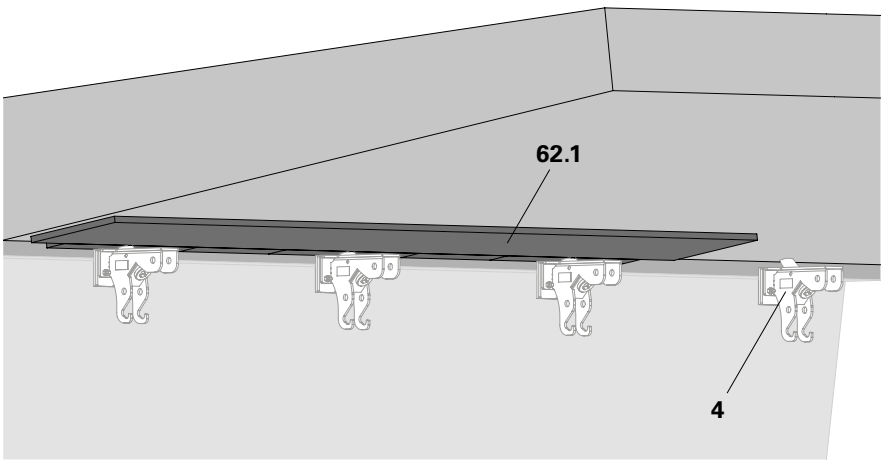


Fig. C3.04d

Moving the VCT Composite Track

Setting the direction of travel
There are three recesses in Drive Rail VCT (**22**). These recesses provide access to the internal mechanics of the Drive Rail VCT.

Components:

5	Suspension Head VCT
5.6	Push-off surface
22	Drive Rail VCT
22.1	Pawl VCT
22.6	Bolt D=16/70
22.7	Cotter Pin 4/1 ga
22.11	Switching mechanism
22.12	Recess
103	Hydraulic pump
105	Round steel

Procedure in principle
Moving with the Drive Rail VCT

1. Put the hydraulic pump into operation (**103**), see assembly instructions for the Drive Rail VCT and hydraulics "Additional technical documentation" on page 6.

Changing the direction of travel:

1. Move the drive rail (**22**) with hydraulic pump (**103**) in such a way that the Ø 16 x 70 bolt (**22.6**) and the recess of the internal mechanism (**22.11**) are clearly visible in the inspection window (**22.12**).

(Fig. C4.01)

2. Use the round steel bar (**105**) to relieve the load on the Ø 16 x 70 (**22.6**) bolt, unlock and remove.
3. Insert the round steel bar (**105**) or a similar item into the hole in the internal mechanism (**22.11**) and shift until the next bolt hole is visible.
4. Insert and tighten bolt Ø 16 x 70 (**22.6**).
   → The direction of travel has been changed.

(Fig. C4.01 – Fig. C4.01c)

If the pawls are pointing in the other direction, the direction of travel has changed.
(Fig. C4.01c)

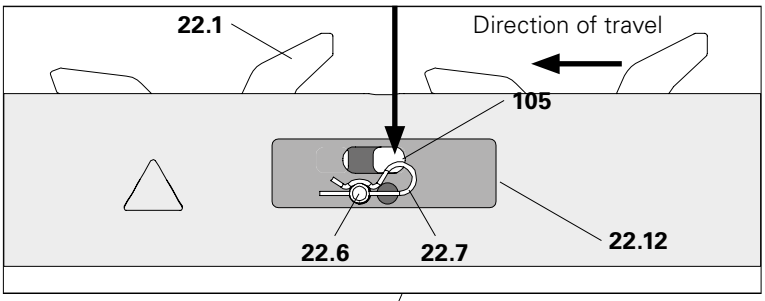


Fig. C4.01

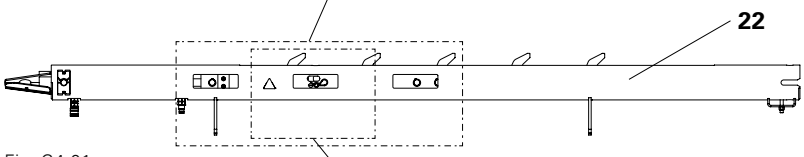


Fig. C4.01a

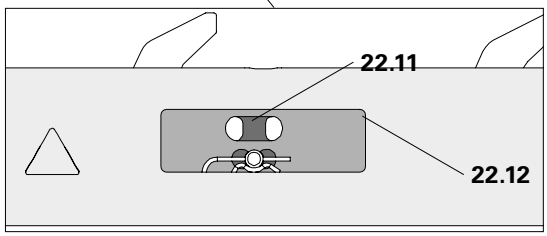


Fig. C4.01b

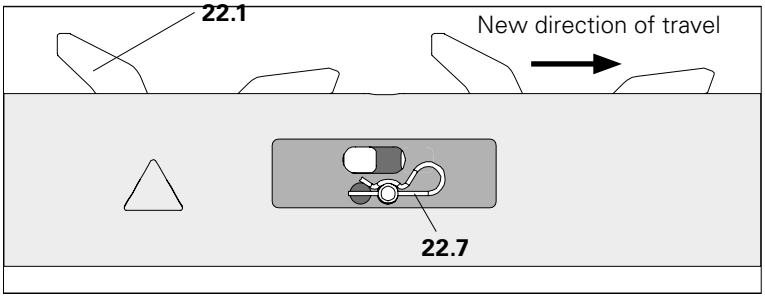


Fig. C4.01c

Adjusting

Prerequisite:
All Pawls VCT must be able to move freely.

1. Remove cotter pin (**22.7**).

(Fig. C4.02)

2. Insert the round steel bar (**105**) through the left-hand slot and into the switching mechanism.
3. Push the switching mechanism to the right with the round steel bar (**105**), thereby relieving and pulling the bolt (**22.6**).

(Fig. C4.02a)

4. Remove the round steel bar (**105**).
   → The switching mechanism and Pawls VCT jump to the starting position.

(Fig. C4.02b)

5. Insert the round steel bar (**105**) through the right-hand slot and into the switching mechanism.
6. Slide the switching mechanism to the left until the holes in the rectangular tube and the switching mechanism are aligned.
   → The pawls (**22.1a**) in the direction of travel swivel in.
   → The activated pawls (**22.1b**) point against the direction of travel.

(Fig. C4.02c)

7. Insert bolts (**22.6**) through the holes and secure with cotter pins. (**22.7**).
8. Press the activated Pawls VCT (**22.1b**) downwards and test whether they can move freely.

(Fig. C4.02d)

→ The direction of travel is set and the Drive Rail VCT is ready for use.

- The bolt (**22.6**) is inserted in the direction of travel.
- The pawls (**22.1**) point against the direction of travel.

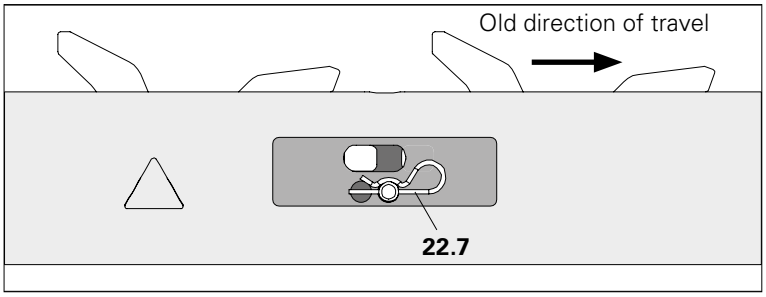


Fig. C4.02

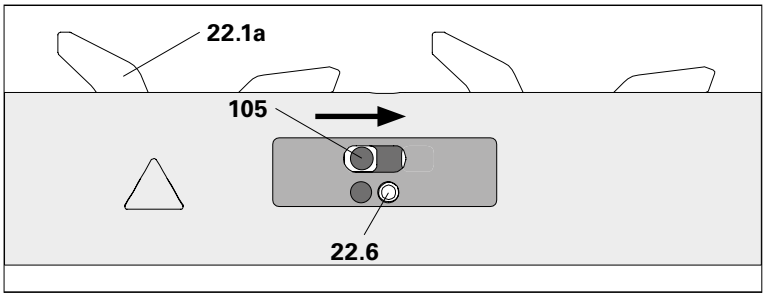


Fig. C4.02a

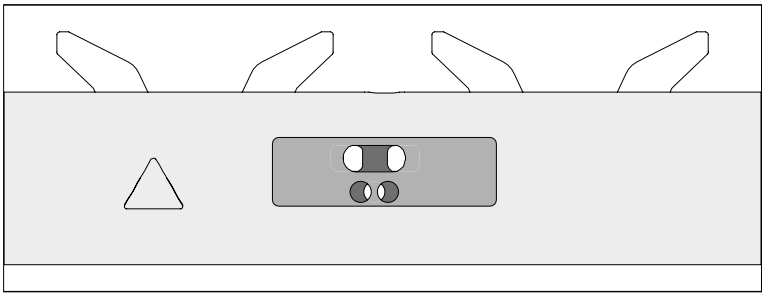


Fig. C4.02b

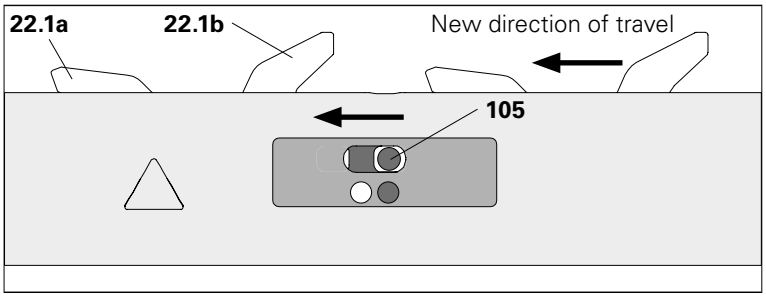


Fig. C4.02c

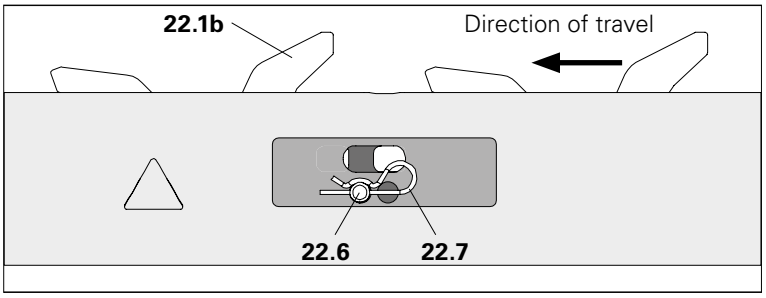


Fig. C4.02d

C5 Moving the carriage

Moving the carriage

Functionality
The Suspension Head VCT (**5**) has two push-off surfaces (**5.6**) for each direction of travel. The Pawls VCT (**22.1**) press against the push-off surfaces. (Fig. C5.01 + Fig. C5.02)

Components:

5 Suspension Head VCT
5.6 Push-off surface
22 Drive Rail VCT
22.1 Pawl VCT
27 Head bracing
103 Hydraulic pump

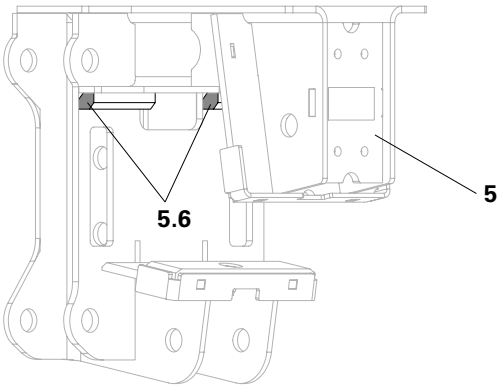


Fig. C5.01

Preparation
- Deshutter.
- Prepare hydraulics.
- If necessary, remove the existing lateral protection.
- If necessary, fit the missing lateral protection.

First stroke
1. Check the direction of travel and adjust if necessary.
2. Fully retract the hydraulic cylinder, see the assembly instructions for Drive Rail VCT and hydraulics.
   → The Pawls VCT (**22.1**) move in the direction of travel.
   → The composite track does not move.

(Fig. C5.02)

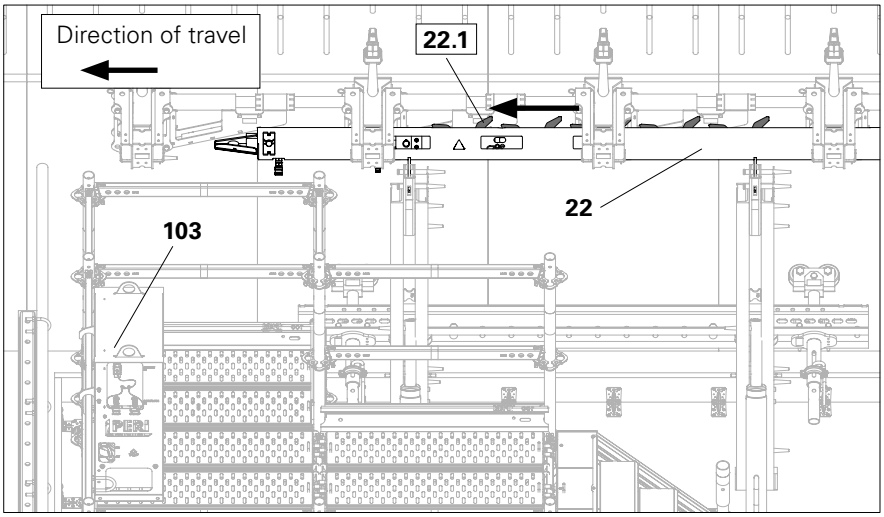


Fig. C5.02

Step 1
Moving the composite track

1. Check the direction of travel and adjust if necessary.
2. Extend the hydraulic cylinder.
   → The Pawls VCT (**22.1**) move against the direction of travel until one of the activated pawls (**22.1**) comes up against a push-off surface (**5.6**).
   → The composite track has not started to move.

(Fig. C5.03)

3. Fully extend the hydraulic cylinder.
   → The composite track moves in the direction of travel.

(Fig. C5.04)

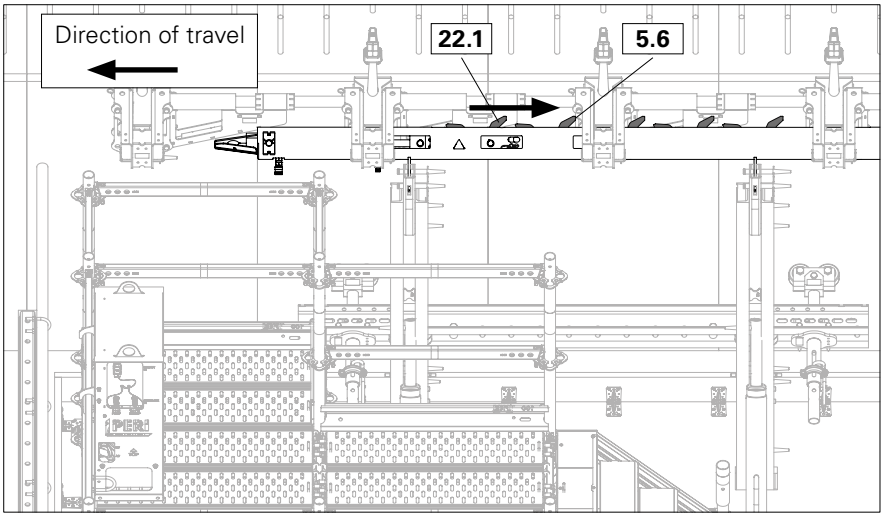


Fig. C5.03

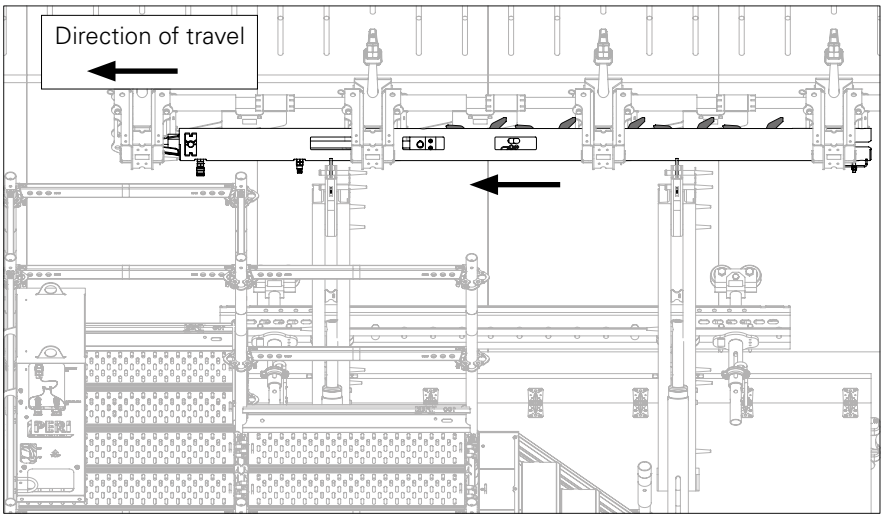


Fig. C5.04

Step 2
Moving the drive mechanics

1. Check the direction of travel and adjust if necessary.
2. Retract the hydraulic cylinder completely.
   → The Pawls VCT (**22.1**) move in the direction of travel.
   → The Pawls VCT (**22.1**) fold in automatically when the Suspension Heads VCT (**5**) move through.
   → The composite track does not move.

(Fig. C5.05)

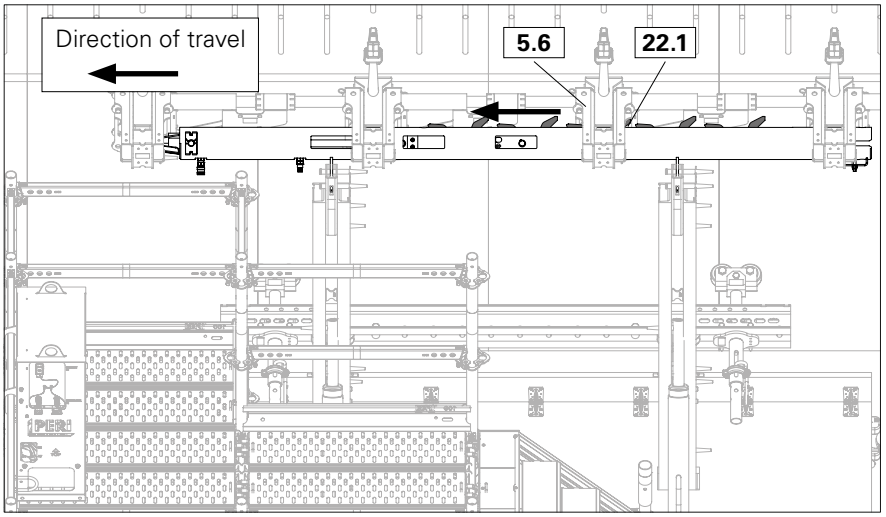


Fig. C5.05

Moving procedure

Warning

Parts of the body can become trapped when fitting and removing the suspension head or head bracing!
This can result in serious injuries.
⇒ Only carry out assembly and disassembly when the composite track is at a standstill.

Note

- Only retract into Suspension Head VCT once the head bracing has been fitted.
- When retracting the Drive Rail VCT into a Suspension Head VCT, ensure that the travelling nose does not collide with the Suspension Head VCT.

Repositioning

1. Repeat step 1 and step 2 until the finishing platform is fully extended out of the suspension head (**5b**).
2. Interrupt the movement process and switch off the hydraulic pump.
3. From the finishing platform, remove the head bracing (**27b**), see "Head bracing for anchor bracket" on page 95.
4. From the finishing platform, remove the suspension head (**5b**), see "Anchoring with anchor bracket" on page 21.
5. From the leading platform, fit the suspension head (**5a**).
6. From the leading platform, fit the head bracing (**27a**) between the suspension heads.
7. Move the suspension head (**5b**) and head bracing (**27b**) with the transport unit (cableway) to the leading platform.
8. Continue the repositioning process.
9. Repeat steps 1 – 8 until the composite track has reached the new concreting position.

(Fig. C5.06 + Fig. C5.07)

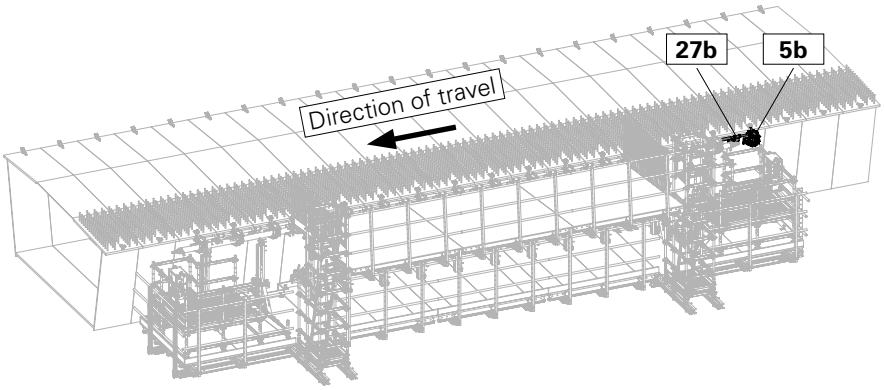


Fig. C5.06

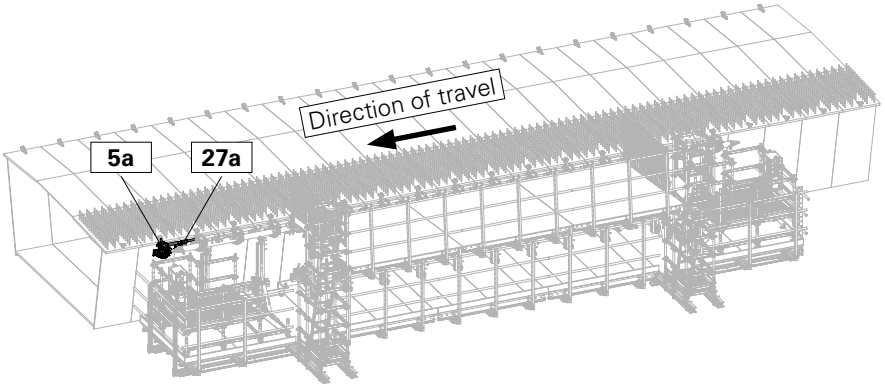


Fig. C5.07

Hurdle function

The hurdle function enables you to negotiate stiffeners, bulkhead plates or other hurdles.

Components:

14 Roller Unit Socket VCT
14.1 G-Hook
14.2 Adjusting nut
15 Roller Unit VCT
45 Stiffener
90 Protective strips with magnets

Prerequisite
The rigidity of the formwork unit is sufficient for movements with only one Roller Unit VCT (**15**). Only the Roller Unit VCT (**15**) that is directly in front of the stiffener (**45**) is retracted.

Procedure
1. Open the handle on the adjusting nut (**14.2**) and turn it anti-clockwise.
   → The Roller Unit Socket VCT (**14**) is relieved.
2. Unlock the G-hook (**14.1**) by pulling it up.

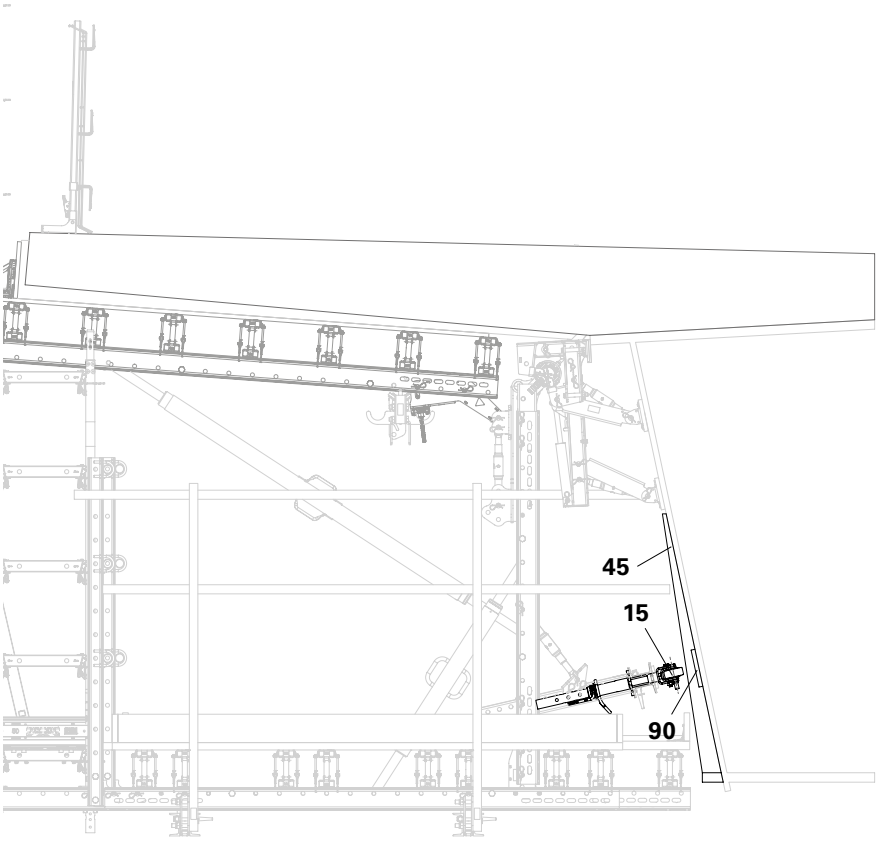


Fig. C5.08

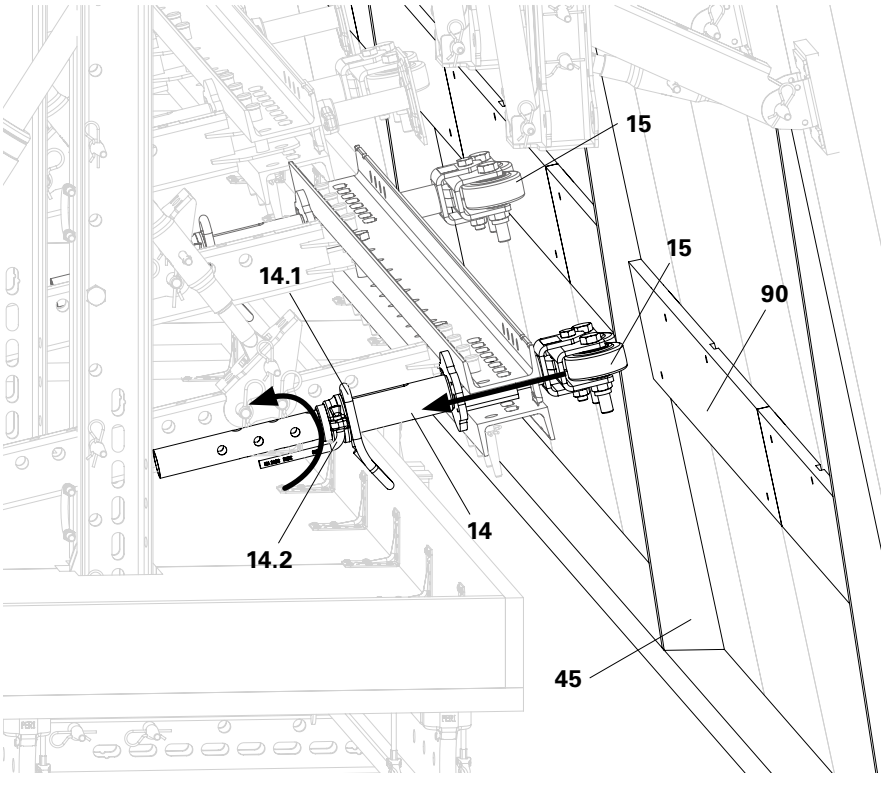


Fig. C5.08a

3. Insert the relieved Roller Unit VCT (**15**).
   → Avoid the obstacle.
4. After the obstacle:
   → Push the Roller Unit VCT (**15**) up to the protective strip (**90**).
   → Remove the G-hook (**14.1**).
   → Turn the adjusting nut (**14.2**) clockwise and tension it.

(Fig. C5.08 – Fig. C5.08c)

The operating platform and scaffolding tubes are not shown here for the sake of clarity.

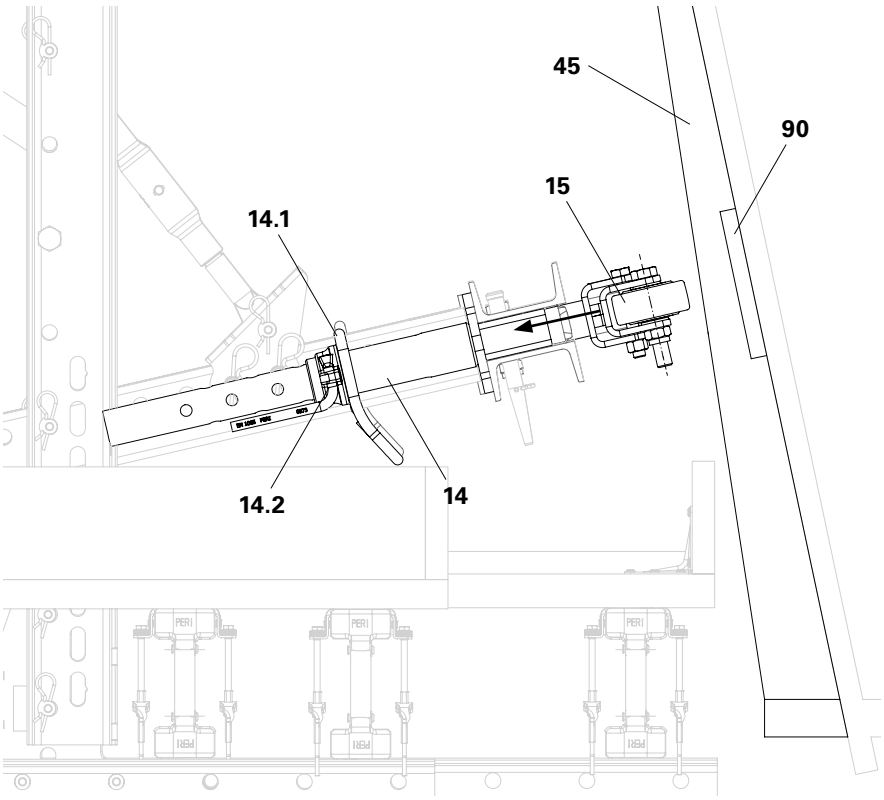


Fig. C5.08b

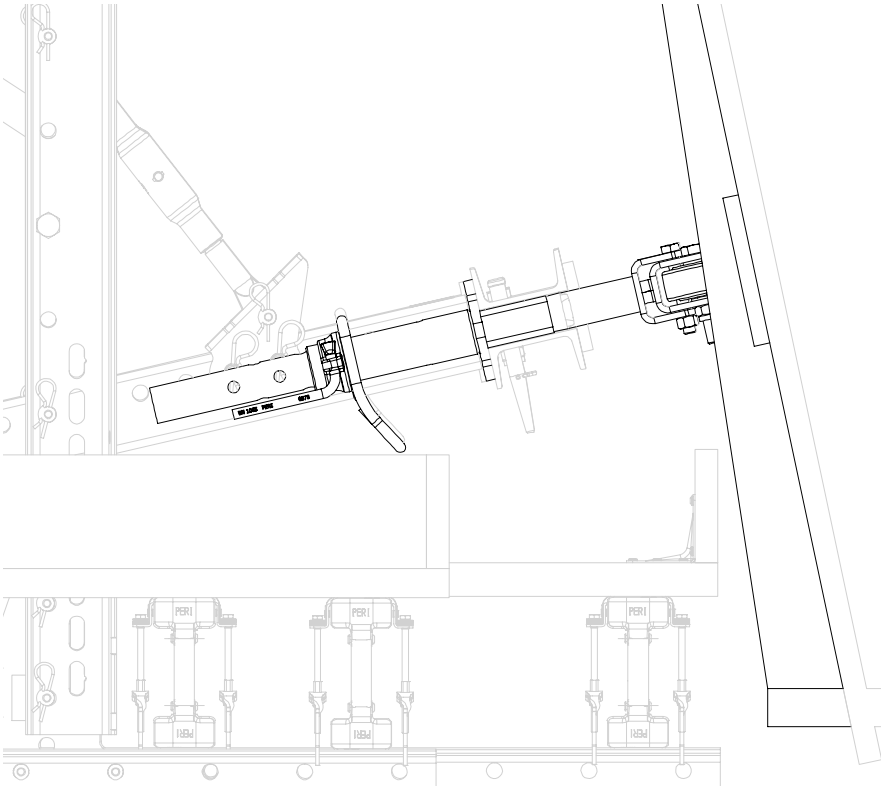


Fig. C5.08c

Dismantling the leading and finishing platform and formwork unit from the steel bridge

Danger

Dismantling the platforms results in open fall edges. This creates a fall hazard!
A fall can result in serious injuries or even death
⇒ Assembly and dismantling should take place from a safe and secure working area.
⇒ Use PPE.
Components may fall down during transport!
This can lead to serious injuries or even death.
⇒ Do not stand under the suspended load.
⇒ Do not carry out any work under suspended loads.
⇒ Guide the leading and finishing platform with ropes when lifting them out.

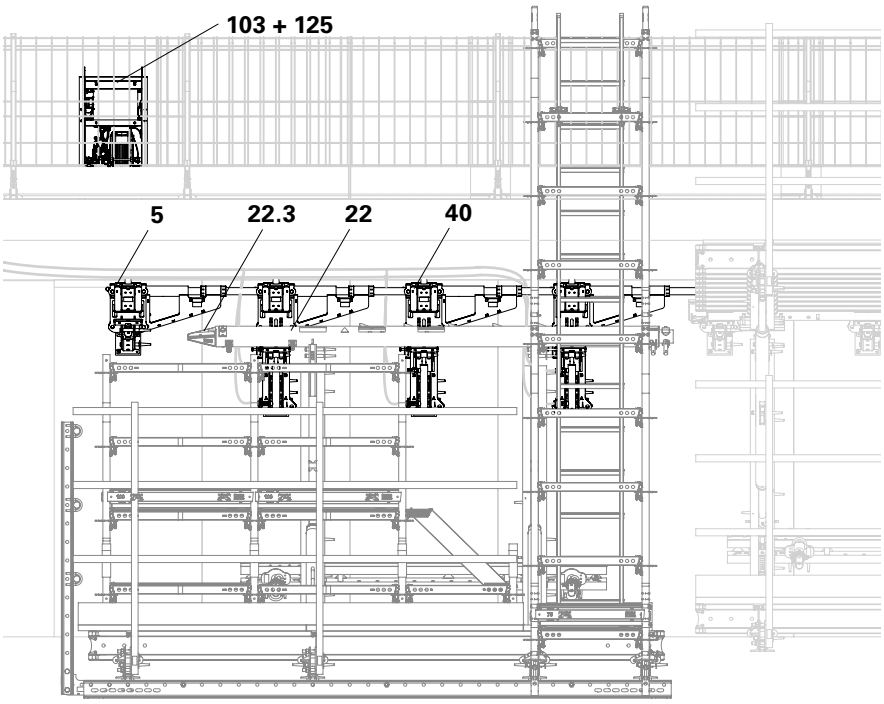


Fig. D1.01

Removing the leading platform (preparation)

1 Move the leading platform into the closed Assembly Heads VCT (**40**).
2. Decouple the leading platform from the formwork unit. The Rail Track Coupler VCT (**11**) remains on the Drive Rail VCT (**22**).

(Fig. D1.01)

3. Dismantle the ladder tower and operating platform and lift out with a crane.
4. Suspend the leading platform from the crane.
5. Open the Assembly Heads VCT (**40**) with hydraulic pump (**103**) and flow divider (**125**), swivel out the leading platform and set it down.

The removed Coupler Pin VCT (**10**) is used for fitting the Travelling Nose VCT (**41**).

D1 Disassembly

Components:

1	Cone Bolt VCT M30
5	Suspension Head VCT
9	Rail Track VCT 300
10	Coupler Pin VCT
11	Rail Track Coupler VCT
22	Drive Rail VCT
22.3	Travelling Nose VCT
29	Cotter Pin 4/1 ga
32	Bolt Ø 20 x 98
40	Assembly Head VCT
41	Travelling Nose VCT
103	Hydraulic Pump RCS MAX
125	Flow Divider RCS MAX

Removing the formwork unit (preparation)

1. Fit Travelling Nose VCT (**41**) (identical to Travelling Nose VCT (**22.3**) for drive rail (**22**)) with a bolt (**10**) to Rail Track Coupler VCT (**11**) and secure with Cotter Pin 4/1 ga (**29**).

(Fig. D1.02 – Fig. D1.02b)

Has the Travelling Nose VCT (**41**) been fitted with the sliding plate facing downwards?
(Fig. D1.02b)

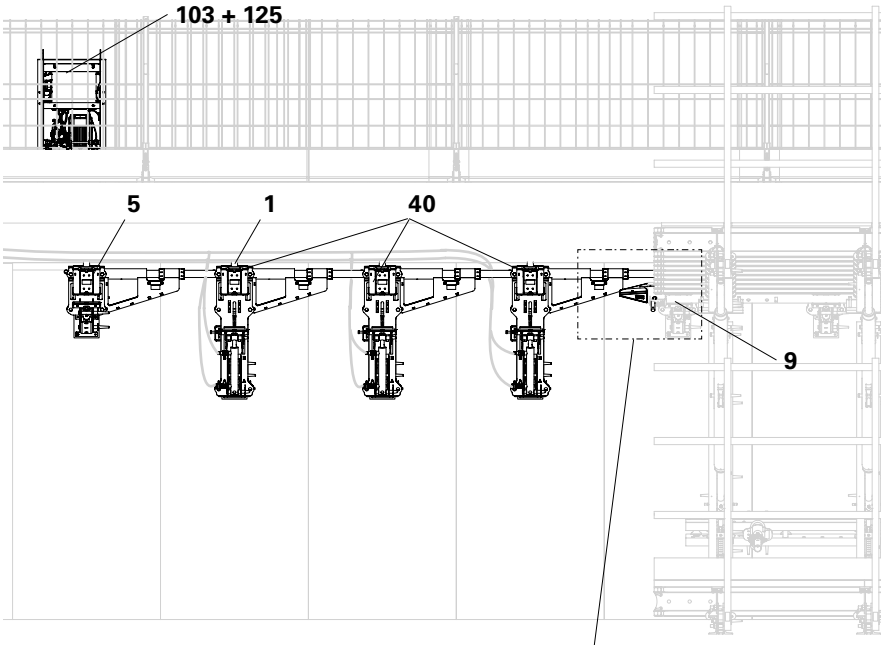


Fig. D1.02

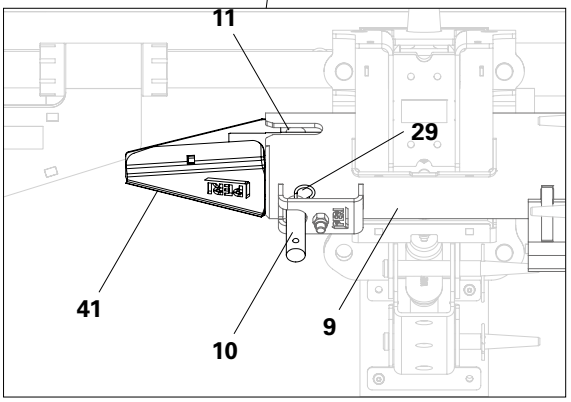


Fig. D1.02a

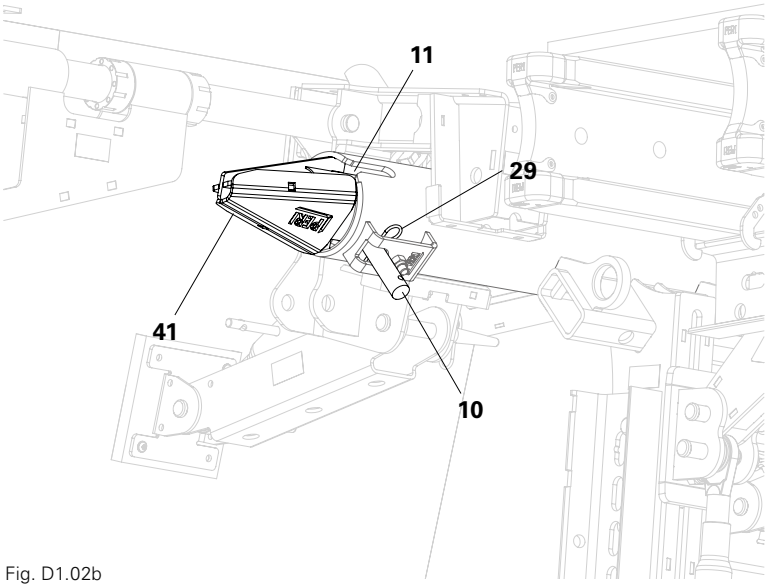


Fig. D1.02b

Removing the leading platform

- The removal process takes place beneath the concreted cantilever arm.
- The hydraulic pump (**103**) and flow divider (**125**) are connected to the concrete surface.
- The PROKIT Side Mesh Barrier PMB (**88**) is fitted.
- Leading and finishing platforms have been retracted into closed assembly heads.
- The operating platform and ladder tower have been dismantled and removed.
- If necessary, remove the material transport unit.
- Check the loads! The maximum payload of the Table Lifting Fork (**63**) must not be exceeded!
- Set the transfer fork to the required angle. To do this, move the suspension on the lever of the Table Lifting Fork to hole 1.

(Fig. D1.03 + Fig. D1.03a)

- Place a squared timber (**47**) measuring approx. 12 x 12 cm on the Table Lifting Fork (**63**)
- A stabilising frame is mounted on the Table Lifting Fork (**63**) as an aid.

(Fig. D1.03 – Fig. D1.04c)

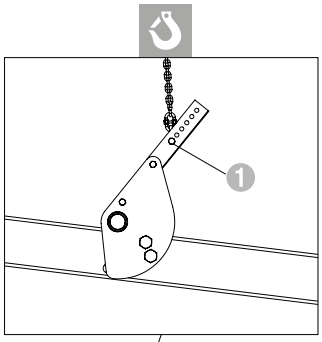


Fig. D1.03a

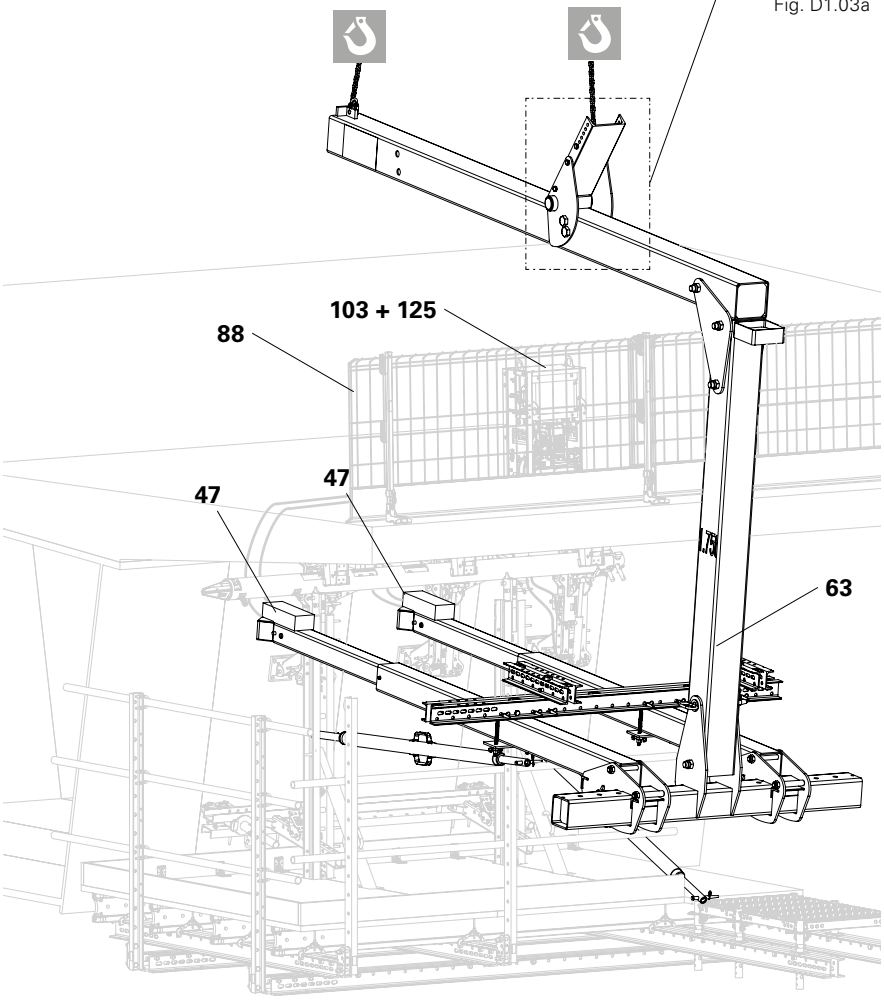


Fig. D1.03

Components:

24.1 Wingnut Counterplate DW 15
24.2 Column tie yoke
28 Fitting Pin Ø21x120 mm
29 Cotter Pin 4/1 ga
37 Cross Connector VARIOKIT
35 Heavy Duty Spindle SLS 100-180
40 Assembly Head VCT
47 Squared timber (provided on site)
49 Steel plate (provided on site)
50.a Steel Waler SRU 72 U120
50.f Steel Waler SRU 222 U120
50.i Steel Waler SRU 272 U120
53 Guardrail Post RCS/SRU 184
55 Scaffold Tube Steel Ø 48.3 x 3.2 mm
63 Table Lifting Fork
88 PROKIT Side Mesh Barrier PMB
103 Hydraulic Pump RCS MAX
125 Flow Divider RCS MAX

Stabilising frame preliminary work

- The Table Lifting Fork (**63**) requires a stabilising frame in order to unhook, i.e. remove the leading or finishing platform from the steel structure.
- Fit the stabilising frame to the Table Lifting Fork (**63**).
- Fit the stabilising frame according to the project specifications.
- If necessary, reposition the stabilising frame to accommodate the Heavy Duty Spindle SLS 100-180 (**35**).

(Fig. D1.04 – Fig. D1.04c)

Fitting the stabilising frame

1. Position the Steel Waler SRU (**50.i**) on the Table Lifting Fork (**63**) according to the requirements of the project.
2. Fit the column tie yokes (**24.2**) in Steel Waler SRU (**50.i**) to the left and right of the Table Lifting Fork (**63**) with Fitting Pins Ø21x120mm (**28**) and secure with Cotter Pins 4/1 ga (**29**).
3. Clamp the column tie yokes (**24.2**) to the Table Lifting Fork (**63**) with steel plates (provided on site) (**49**).
4. Fit the Cross Connector VARIOKIT (**37**) to the Steel Waler SRU (**50.i**) at a project-specific distance from the console bracket discs, dimension (b = 1.5 m), using Fitting Pin Ø21x120 mm (**28**) and secure with Cotter Pin 4/1 ga (**29**).
5. Fit Steel Waler SRU (**50.a**) to Cross Connector VARIOKIT (**37**) using Fitting Pin Ø21x120 mm (**28**) and secure with secure with Cotter Pin 4/1 ga (**29**).

(Fig. D1.04 – Fig. D1.04c)

Preparatory work

1. Position the Table Lifting Fork (**63**) with stabilising frame.

(Fig. D1.04 – Fig. D1.04c)

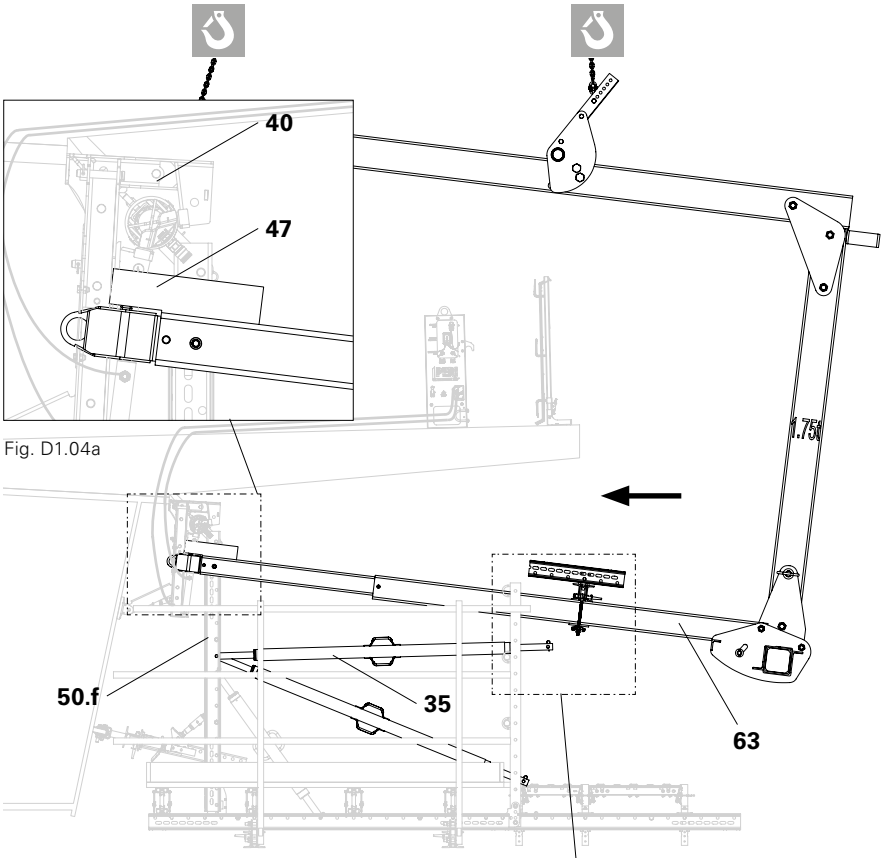


Fig. D1.04a

Fig. D1.04

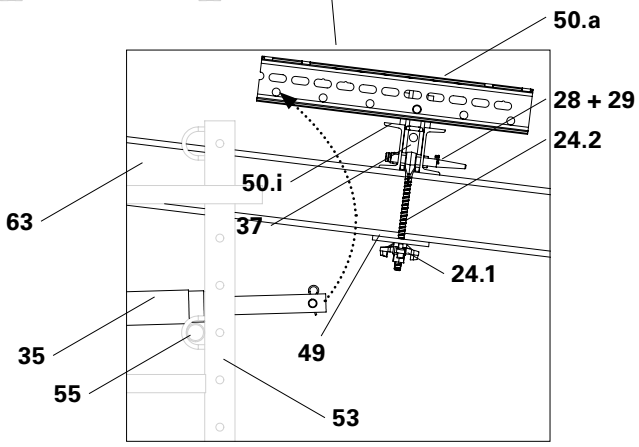


Fig. D1.04b

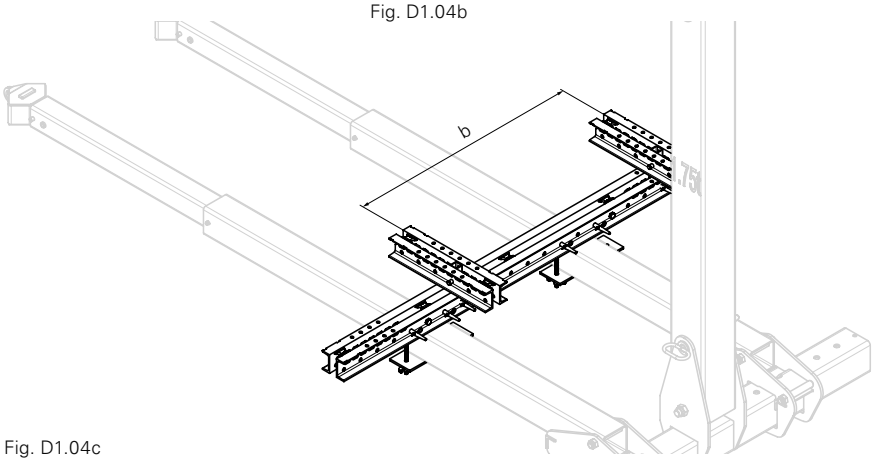


Fig. D1.04c

2. Remove the upper Scaffold Tube Steel Ø 48.3 x 3.2 (**55**) from the Guardrail Post RCS/SRU (**53**).
(Fig. D1.06)
3. Disconnect Drive Rail VCT (**22**) and Rail Track VCT 300 (**9**) from Rail Track Coupler VCT (**11**) by pulling off Cotter Pin 4/1 ga (**29**) and removing Coupler Pin VCT (**10**).
(Fig. D1.05 + Fig. D1.06)
4. Fit Heavy-Duty Spindle SLS (**35**) to vertical Steel Waler SRU (**50.f**) with Fitting Pin Ø21x120 mm (**28**) and secure with Cotter Pin 4/1 ga (**29**).
5. Place the Heavy-Duty Spindle SLS (**35**) on Scaffold Tube Steel Ø 48.3 x 3.2 (**55**).
(Fig. D1.07)

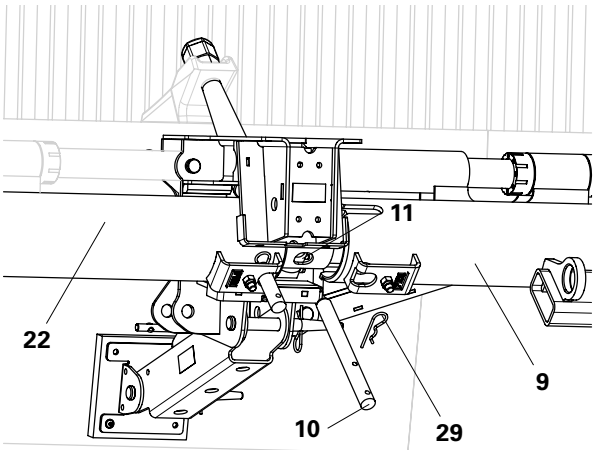


Fig. D1.05

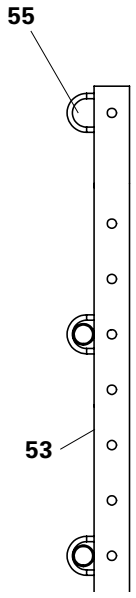


Fig. D1.06

Components:

9	Rail Track VCT 300
10	Coupler Pin VCT
22	Drive Rail VCT
22.4	Connection A feed
22.5	Connection B return
28	Fitting Pin Ø21x120 mm
29	Cotter Pin 4/1 ga
35	Heavy Duty Spindle SLS 100-180
40	Assembly Head VCT
47	Squared timber (provided on site)
48	Tension belt, b=50 mm (provided on site)
50.a	Steel Waler SRU 72 U120
50.f	Steel Waler SRU 222 U120
53	Guardrail Post RCS/SRU 184
55	Scaffold Tube Steel Ø 48.3 x 3.2 mm
63	Table Lifting Fork

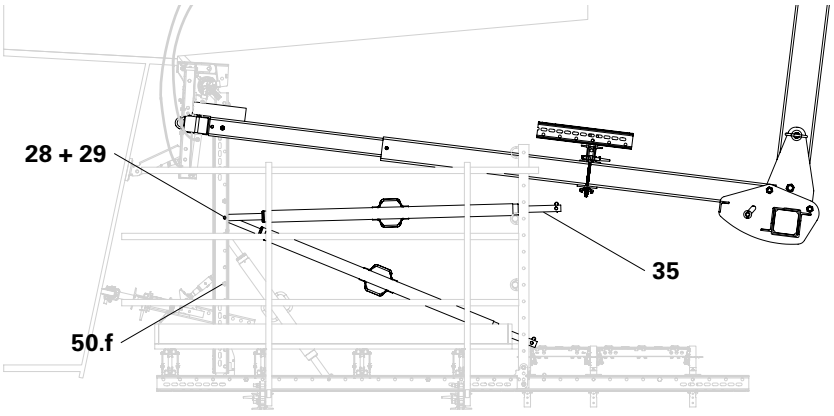


Fig. D1.07

Do not damage the connections (**22.4 + 22.5**) for the hydraulics when lifting with the Table Lifting Fork (**63**). (Fig. D1.08 + Fig. D1.08a)

Fitting the Table Lifting Fork on the leading or finishing platform

1. If necessary, use squared timber (**47**) or a board (provided on site) as a support beneath the Drive Rail VCT (**22**). Secure the squared timber (**47**) or board on the Table Lifting Fork on site (**63**) to prevent it from falling. (Fig. D1.08 + Fig. D1.08a)
2. Swivel the Heavy-Duty Spindle SLS (**35**) upwards, fit to the Steel Waler SRU (**50.a**) with Fitting Pin Ø21x120 mm (**28**) and secure with Cotter Pin 4/1 (**29**).

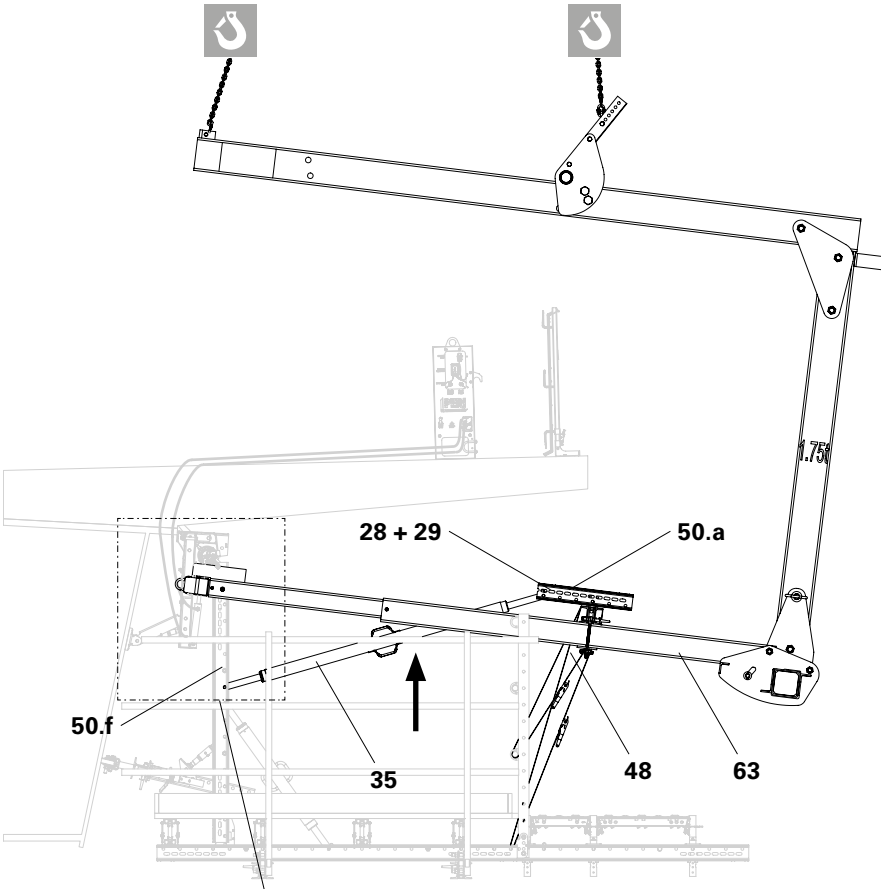


Fig. D1.08

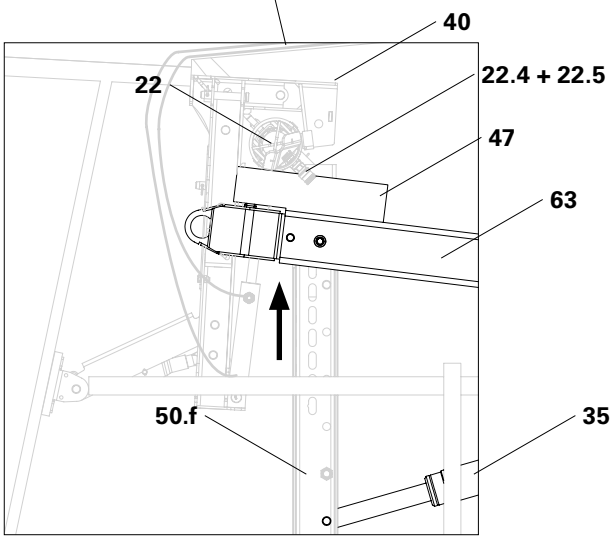


Fig. D1.08a

3. Brace the scaffolding tube (**55**) and Steel Waler SRU (**50.i**).with 2x tension belts (**48**), 1x left and 1x right.
4. If necessary, attach guide ropes to the platform.
5. Deactivate the pawl on all assembly heads (**40**), see the assembly instructions for the Assembly Head VCT and hydraulics.
   → The assembly heads are now prepared for the next use.
   → Leave the platform.
6. Raise the Table Lifting Fork (**63**) and apply traction until the squared timbers (**47**) are resting on the Drive Rail VCT (**22**) and the assembly heads (**40**) are relieved.

(Fig. D1.09 + Fig. D1.09a)

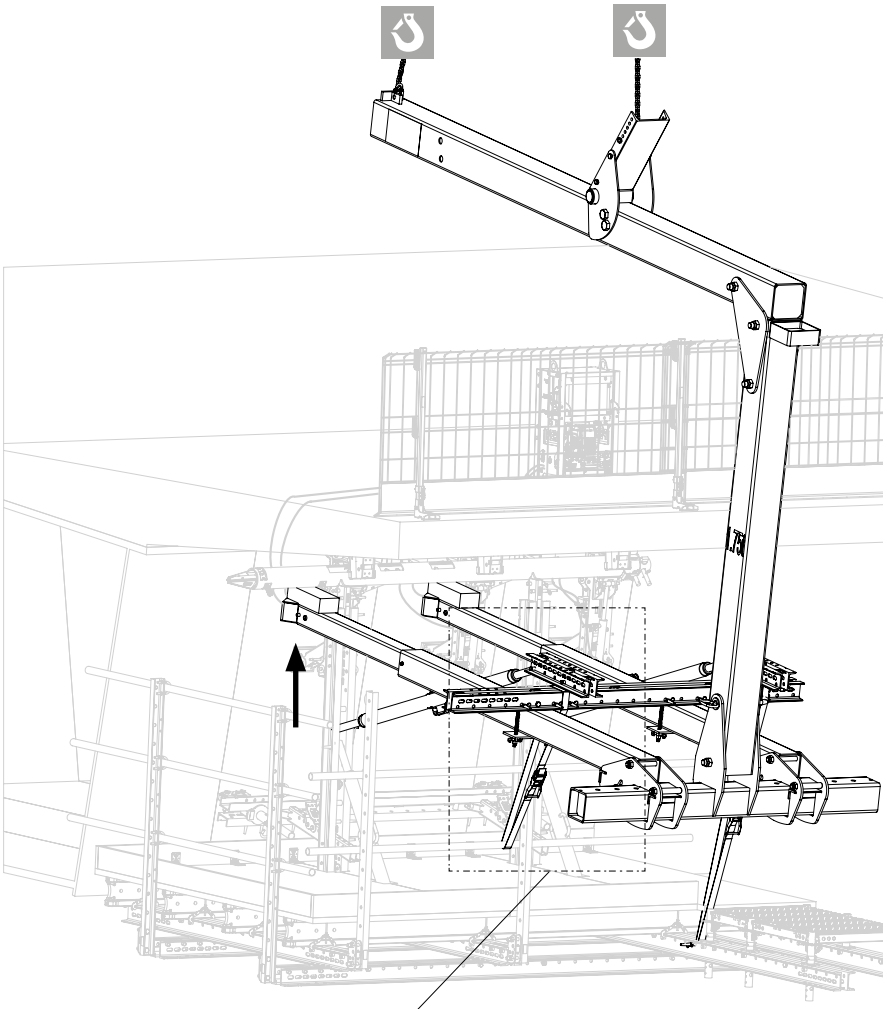


Fig. D1.09

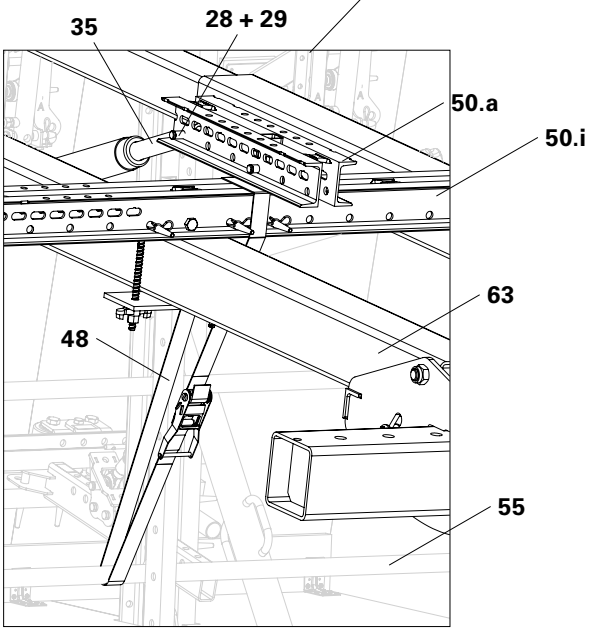


Fig. D1.09a

Lifting out the leading and finishing platforms

1. Open the Assembly Heads VCT (**40**) hydraulically.

(Fig. D1.10)

2. Lift out the Table Lifting Fork (**63**) with the leading or finishing platform.

(Fig. D1.11)

3. Set down the platform in a secured manner.
4. Close the assembly heads (**40**) hydraulically.

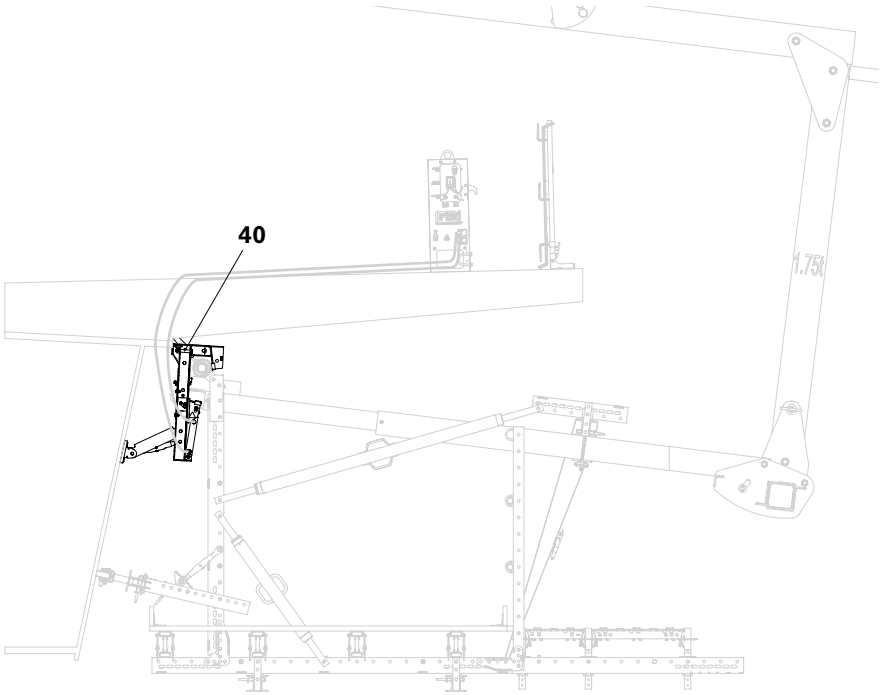


Fig. D1.10

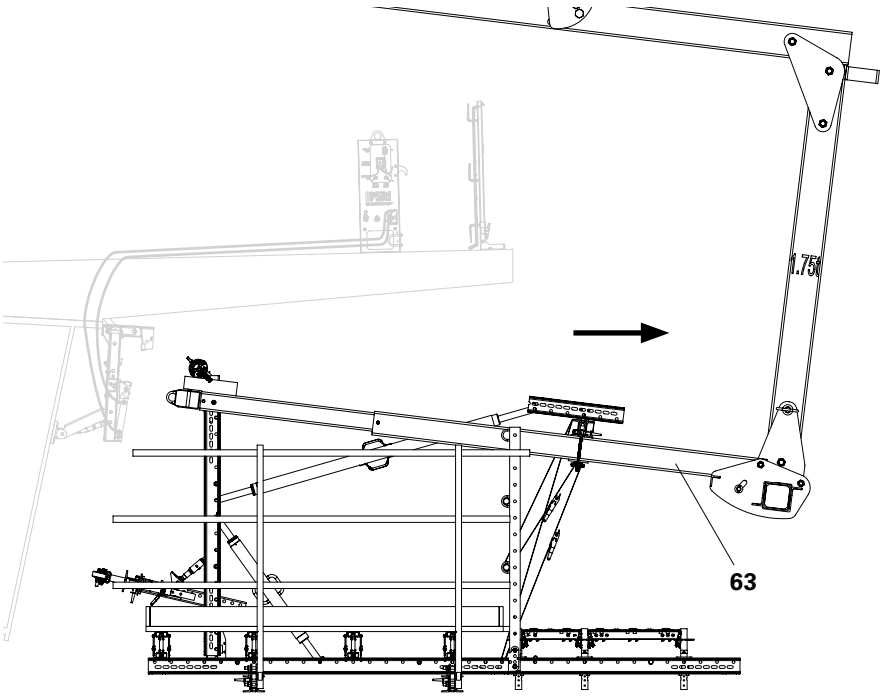


Fig. D1.11

Removing the formwork unit

Danger

Dismantling the platform units results in open fall edges. This creates a fall hazard!
A fall can result in serious injuries or even death.
⇒ Assembly and dismantling should take place from a safe and secure working area.
⇒ Use PPE.

- The removal process takes place beneath the concreted cantilever arm.
- The formwork unit is retracted into the closed assembly heads.
- Decouple the formwork unit horizontally.
- If necessary, remove the material transport unit.
- Check the loads! The maximum payload of the Table Lifting Fork (**63**) must not be exceeded!
- If the permissible load capacity of the Table Lifting Fork (**63**) is exceeded, the cantilevered formwork (**39**) and working platform (**38**) must be removed from the steel structure separately!
- Set the transfer fork to the required angle. To do this, move the suspension on the lever of the Table Lifting Fork to hole 1.

(Fig. D1.13 + Fig. D1.13a)

Components:

12	Adjusting Unit VCT
28	Fitting Pin Ø21x120 mm
29	Cotter Pin 4/1 ga
36	Heavy Duty Spindle SLS 200-300
39	Cantilevered formwork (assembly)
40	Assembly Head VCT
53	Guardrail Post RCS/SRU 184
55	Scaffold Tube Steel Ø 48.3 x 3.2 mm
63	Table Lifting Fork
88	PROKIT Side Mesh Barrier PMB
103	Hydraulic Pump RCS MAX
125	Flow Divider RCS MAX

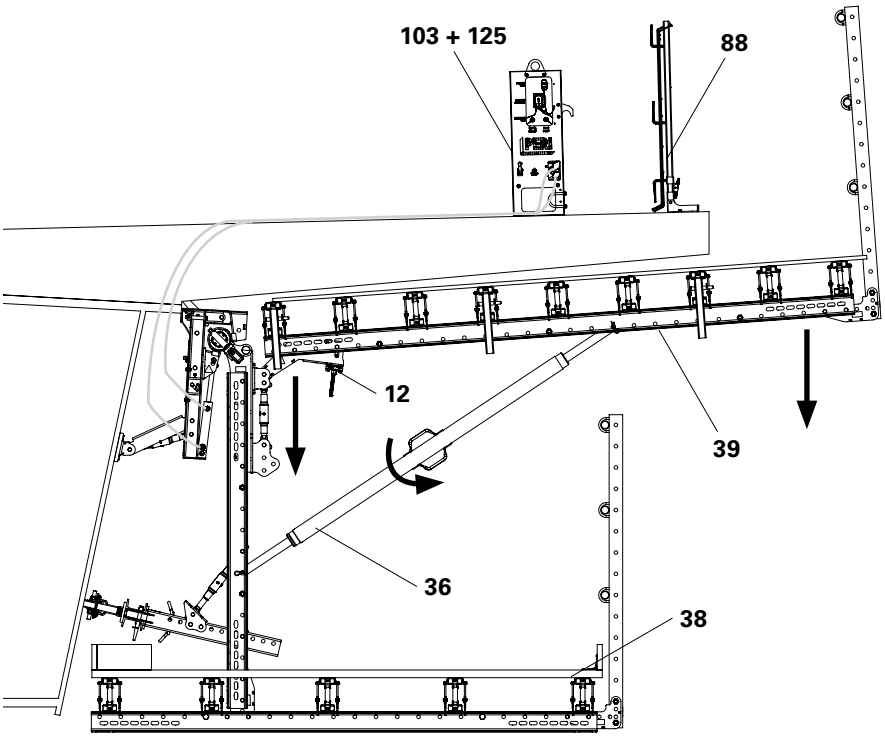


Fig. D1.12

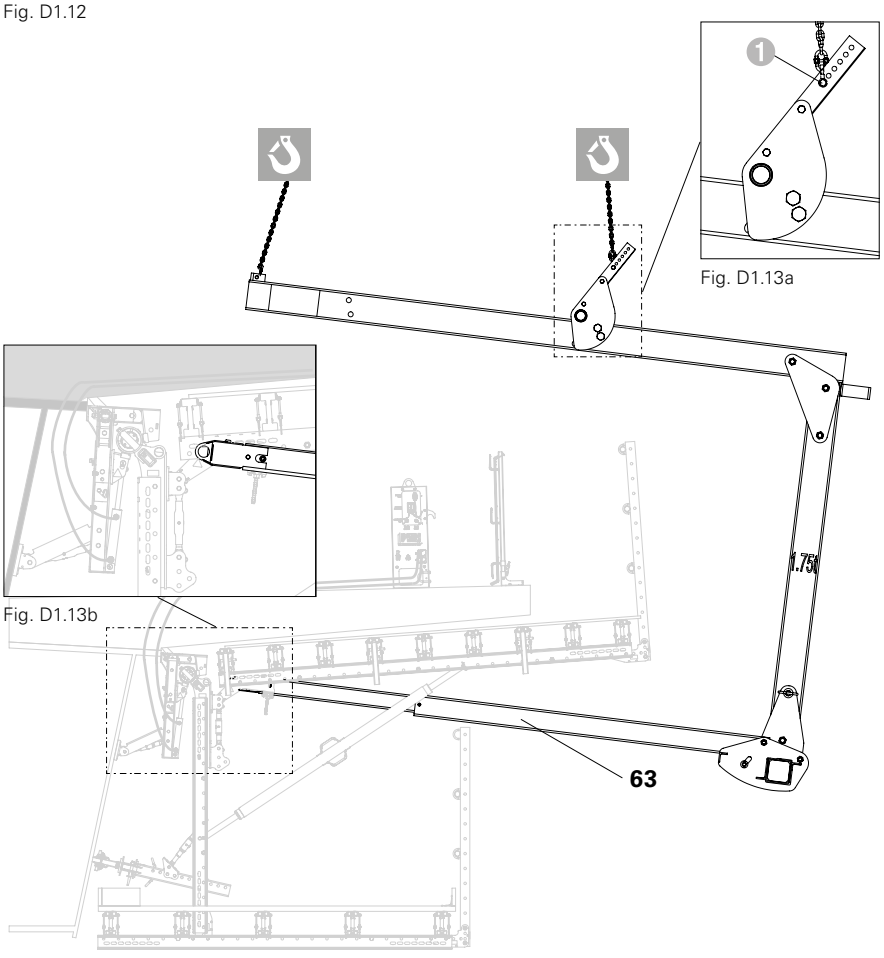


Fig. D1.13a

Fig. D1.13b

Fig. D1.13

Lifting out the cantilevered formwork

1. Dismantle the upper Scaffold Tube Steel Ø 48.3 x 3.2 (**55**) from the Guardrail Post RCS/SRU (**53**).

(Fig. D1.14 + Fig. D1.14b)

2. Lower the cantilevered formwork (**39**) on the Adjusting Unit VCT (**12**), screw in the Heavy-Duty Spindle SLS (**36**) and lower the cantilevered formwork (**39**).
3. Lift the Table Lifting Fork (**63**) beneath the cantilevered formwork (**39**) and position it.

(Fig. D1.12 – Fig. D1.13b)

4. Screw in the Heavy-Duty Spindles SLS (**4**) until the formwork is resting on the Table Lifting Fork (**63**).
   → The Heavy-Duty Spindles SLS (**36**) are relieved and can be removed from the cantilevered formwork (**39**).

(Fig. D1.14)

5. Set the Heavy-Duty Spindles SLS (**36**) down on the guardrail post (**55**).

(Fig. D1.14 + Fig. D1.15)

6. If necessary, attach guide ropes to the cantilevered formwork (**39**).
7. Separate the unloaded Adjusting Unit VCT (**12**) from the cantilevered formwork (**39**) at hole 1 by removing the Cotter Pin 4/1 ga (**29**) and Fitting Pin Ø21x120 mm (**28**).
   → The Adjusting Unit VCT (**12**) is uncoupled from the cantilevered formwork (**39**).

(Fig. D1.14 + Fig. D1.14a)

8. The cantilevered formwork (**39**) is separated from the working platform (**38**) and can be lifted out.

(Fig. D1.15)

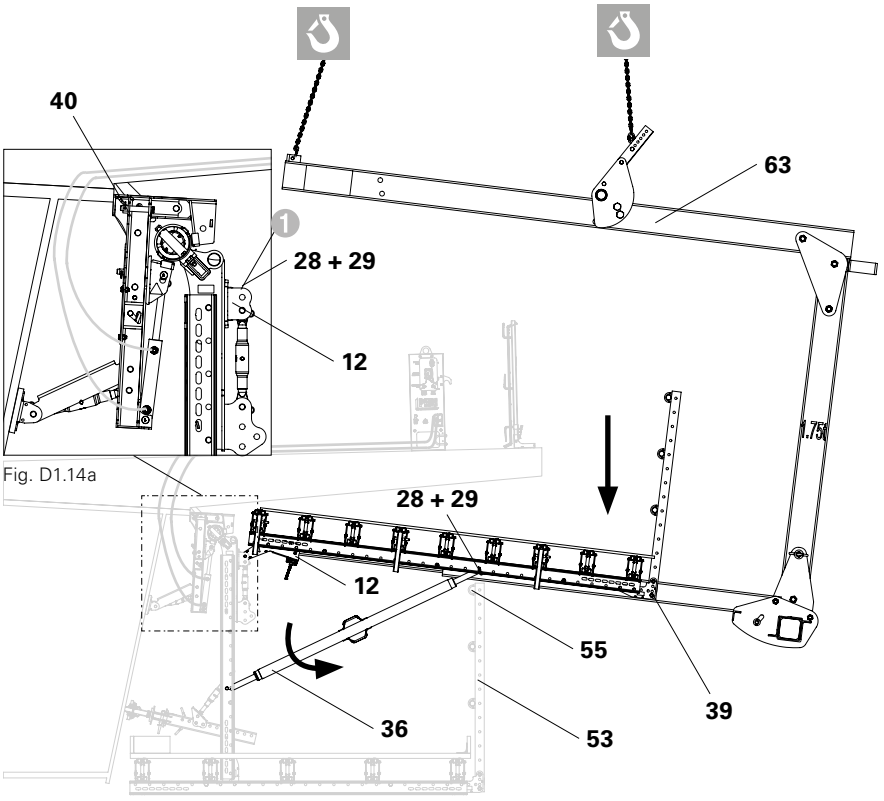


Fig. D1.14a

Fig. D1.14

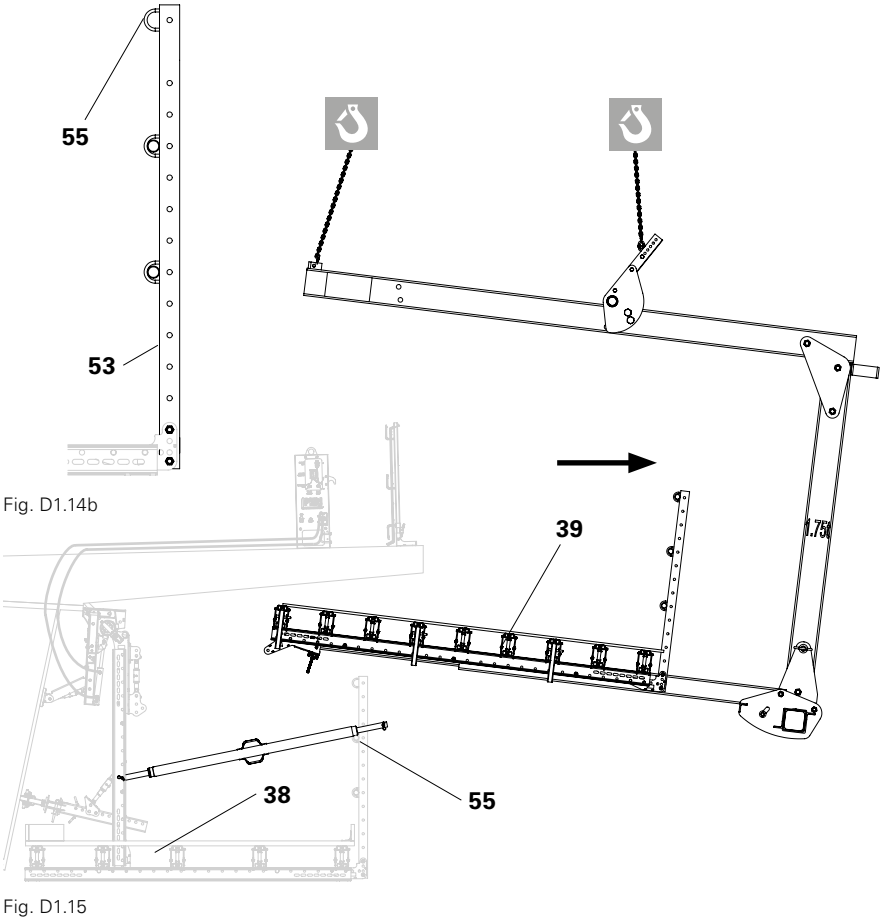


Fig. D1.14b

Fig. D1.15

Lifting out the working platform

Preparatory work

- Convert the Table Lifting Fork (**63**) with stabilising frame for the working platform (**38**).
- If there are three console bracket discs with a spacing of a = 1.0 m, remove the middle Heavy-Duty Spindle SLS (**36**).
- Set the Steel Waler SRU (**50.a**) to a project-specific distance d = 1.5 m or 2.0 m.

(Fig. D1.16 – Fig. D1.17a)

Components:

9 Rail Track VCT 300
24.1 Wingnut Counterplate DW 15
24.2 Column tie yoke
28 Fitting Pin Ø21x120 mm
29 Cotter Pin 4/1 ga
37 Cross Connector VARIOKIT
36 Heavy Duty Spindle SLS 200-300
38 Working platform (assembly)
40 Assembly Head VCT
49 Steel plate (provided on site)
50.a Steel Waler SRU 72 U120
50.i Steel Waler SRU 272 U120
63 Table Lifting Fork

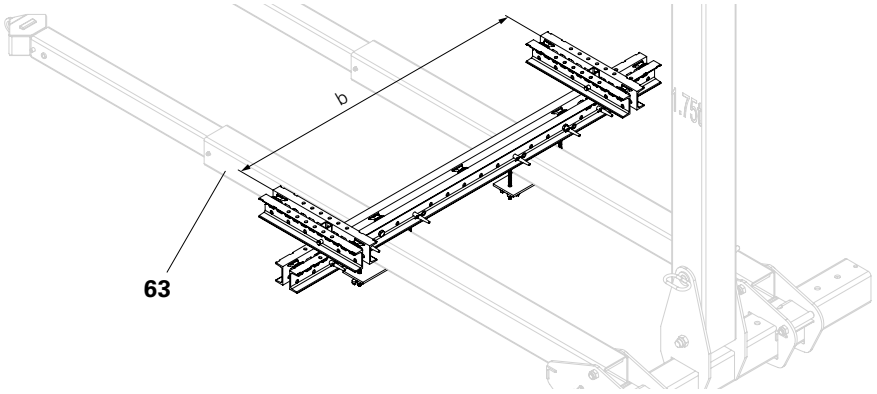


Fig. D1.16

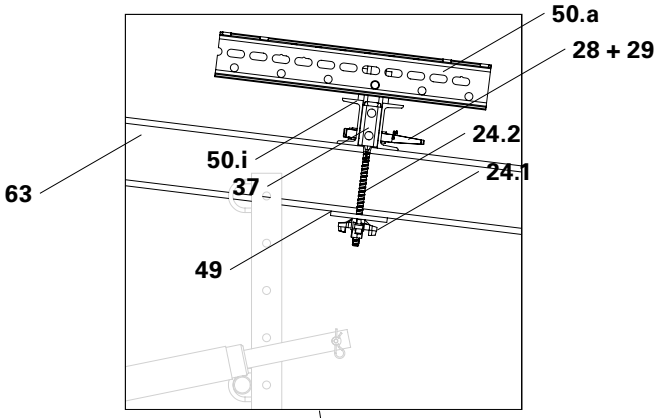


Fig. D1.17a

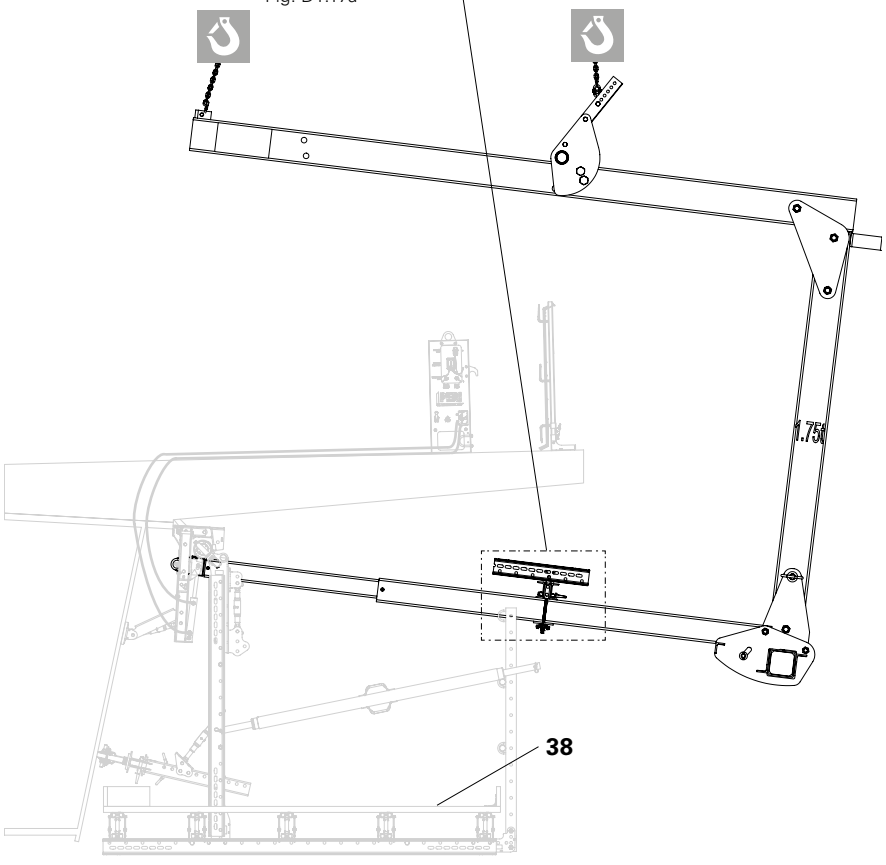


Fig. D1.17

Mounting the working platform on the Table Lifting Fork

1. Position the Table Lifting Fork (**63**) with the mounted stabilising frame beneath the Rail Track VCT 300 (**9**), raise it and apply traction.
2. Swivel the left- and right-hand Heavy-Duty Spindle SLS (**36**) towards the Steel Waler SRU (**50.a**), fit with the Fitting Pin Ø21x120 mm (**28**) and secure with the Cotter Pin 4/1 ga (**29**).

(Fig. D1.18 – Fig. D1.19a)

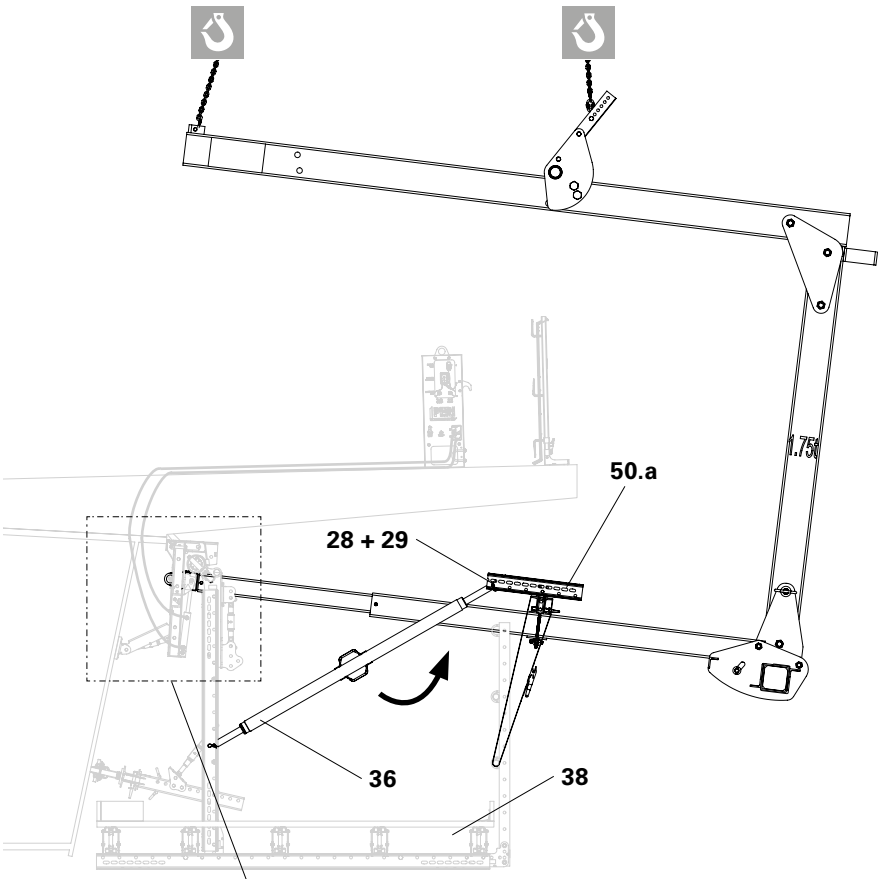


Fig. D1.18

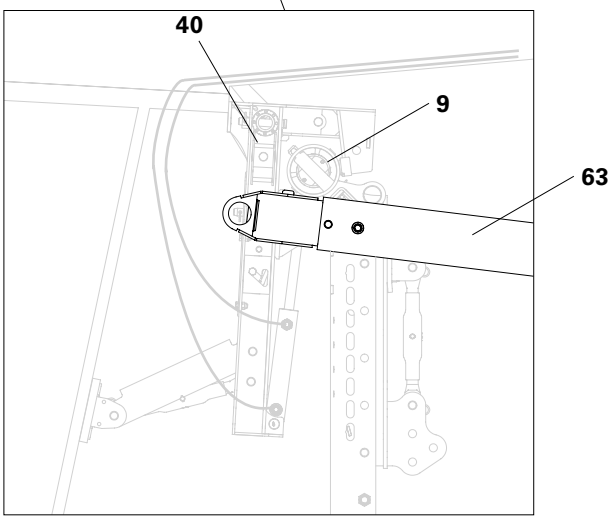


Fig. D1.18a

3. Brace the scaffolding tube (**55**) and Steel Waler SRU (**50.i**).with 2x tension belts (**48**), 1x left and 1x right.
(Fig. D1.19 + Fig. D1.19a)

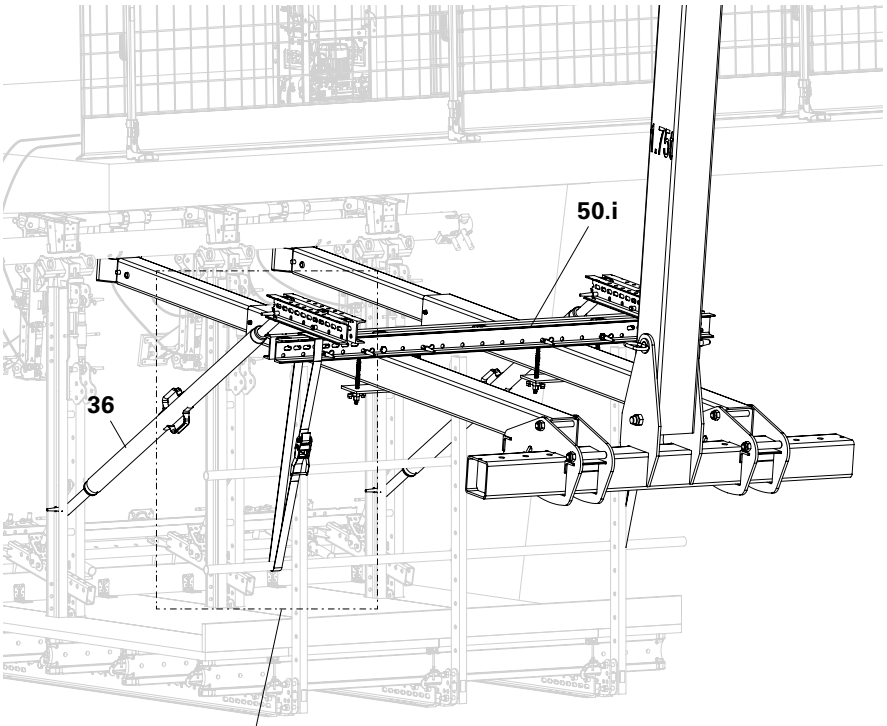


Fig. D1.19

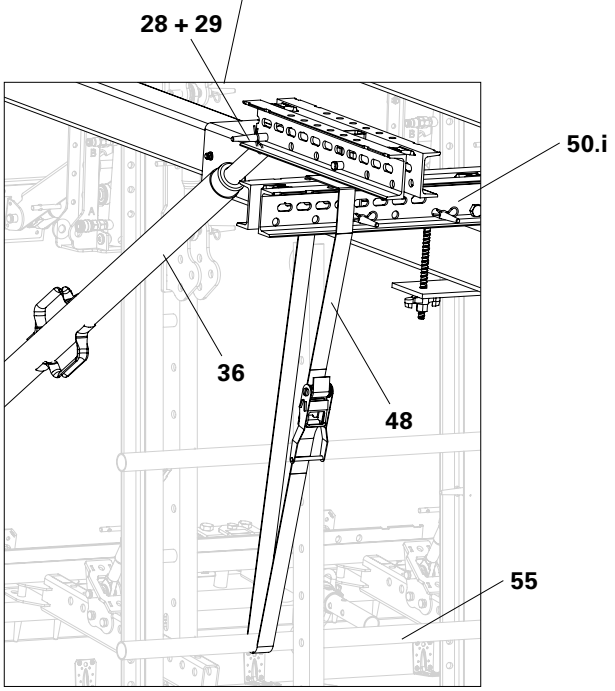


Fig. D1.19a

Releasing and lifting out the working platform

In the initial state, the assembly heads (**40**) are closed.
(Fig. D1.18a)

Components:

38	Working platform (assembly)
40	Assembly Head VCT
63	Table Lifting Fork

Lifting out the working platform

1. Deactivate the pawl on all assembly heads (**40**), see the assembly instructions for the Assembly Head VCT and hydraulics.
   → The assembly heads are now prepared for the next use.
2. Leave the work platform.
3. Apply traction to the Table Lifting Fork (**63**) with the mounted working platform (**38**) and relieve the assembly head (**40**).
4. Open the Assembly Heads VCT (**40**) hydraulically.

(Fig. D1.20)

5. Swivel out the Table Lifting Fork (**63**) with working platform (**38**) and lift it out.

(Fig. D1.20a)

6. Close the assembly heads (**40**) hydraulically.

→ Repeat the disassembly steps for Formwork Unit VCT until the final Formwork Unit VCT has been removed.
→ After removing the final Formwork Unit VCT, carry out the work steps for the finishing platform as described for removing the leading and finishing platform VCT.

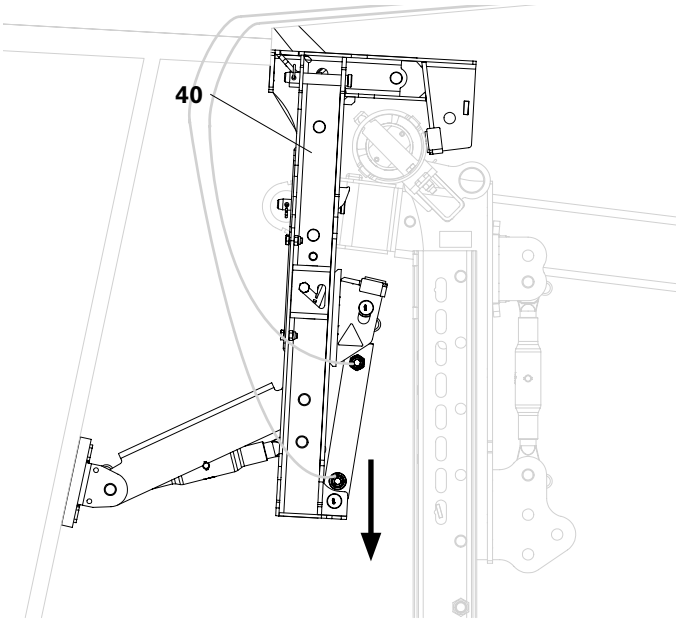


Fig. D1.20

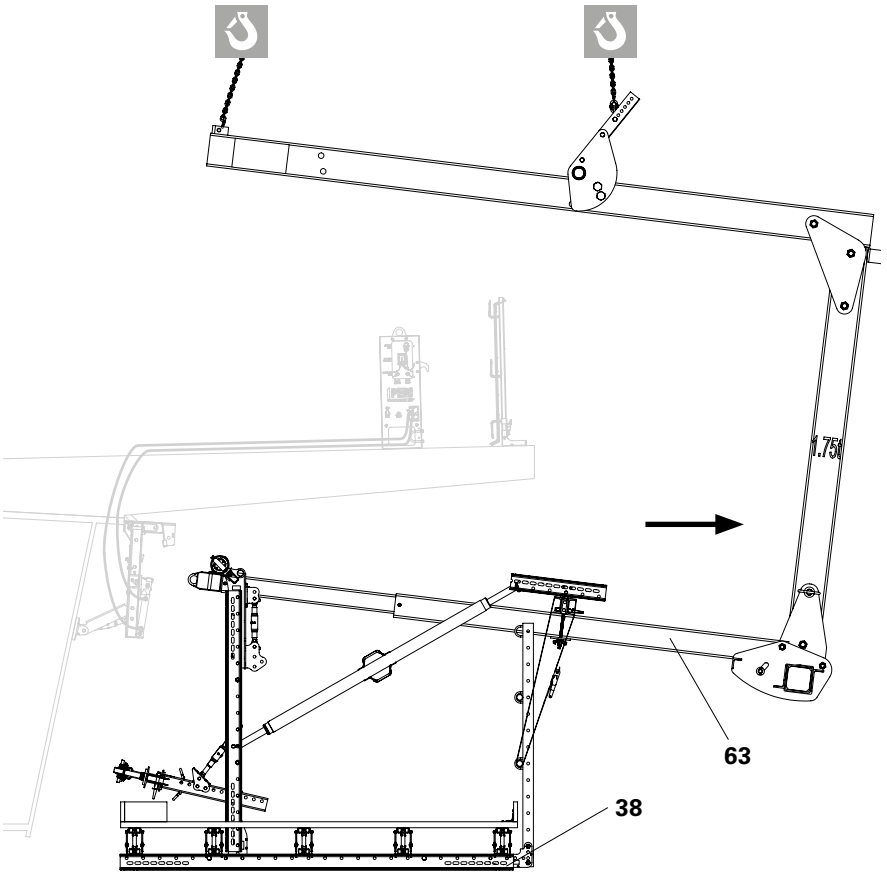
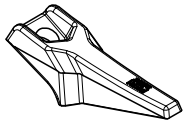


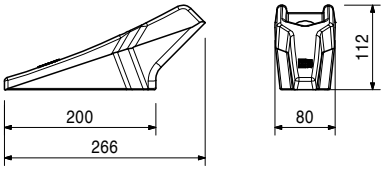
Fig. D1.20a

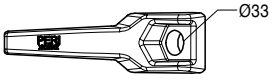
D1 Disassembly

Art no.	Weight [kg]		B [mm]	L [mm]
140291	4.950	**Anchor Bracket VCT M30**	80	266

Lost part for Suspension Head VCT

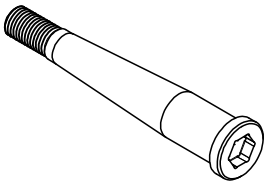


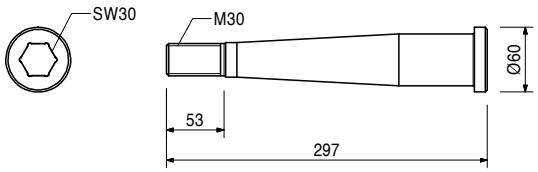




Art no.	Weight [kg]		B [mm]	L [mm]
140290	3.050	**Cone Bolt VCT M30**	60	297

Suspension cone for Cone Socket VCT





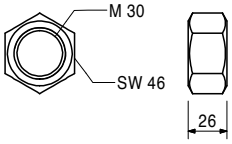
Accessory (not included)

130152 Nut ISO4032-M30-8-ga

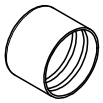
140767 Hex.Nut DIN6334-M30-8-ga

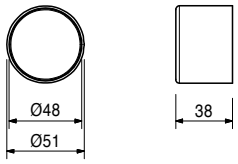
Art no.	Weight [kg]	
130152	0.220	**Nut ISO4032-M30-8-ga**





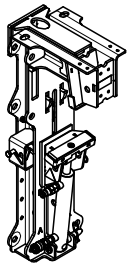
Art no.	Weight [kg]	
142024	0.013	**Protection Cap GPN250 / 48.3**

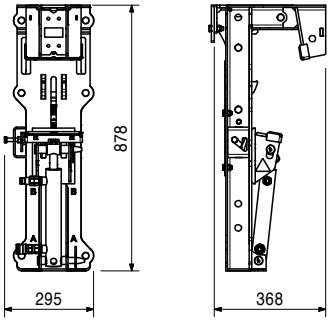




Art no.	Weight [kg]		B [mm]	L [mm]
141611	46.700	**Assembly Head VCT**	295	368

Assembly Head for attaching and detaching of platform units VCT

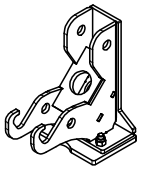


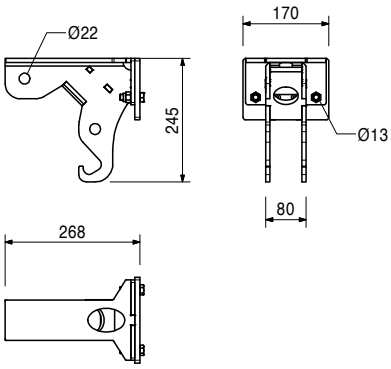


Included in delivery

141604 Cone Socket Assy Head coat 1 pc
136290 Pin Ø20x98mm 2 pc
018060 Cotter Pin 4/1 ga 2 pc

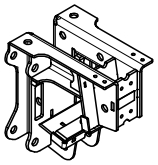
Art no.	Weight [kg]		B [mm]	L [mm]
141435	7.740	**Cone Socket VCT**	160	245

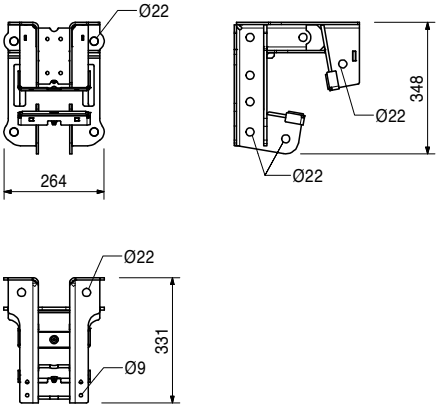




Art no.	Weight [kg]		B [mm]	L [mm]
141427	17.200	**Suspension Head VCT**	264	331

Suspension Head for Rail Track VCT



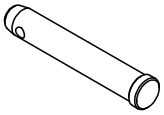


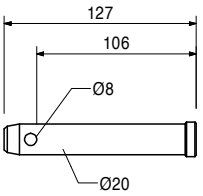
Accessory (not included)

136290	Pin Ø20x98mm
018060	Cotter Pin 4/1 ga

Art no.	Weight [kg]		B [mm]	L [mm]
136290	0.315	**Pin Ø20x98mm**	20	127

For different connections



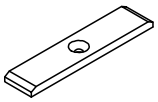


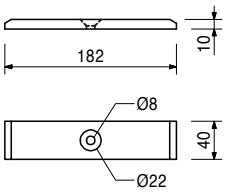
Accessory (not included)

018060 Cotter Pin 4/1 ga

Art no.	Weight [kg]		B [mm]	L [mm]
141353	0.099	**Sliding Plate VCT 181.5mm**	40	182

Replacement sliding plate for Suspension Head VCT



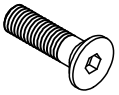


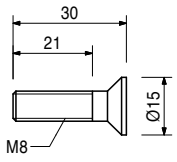
Accessory (not included)

112469 Screw ISO10642-M8x30-8.8-ga

711071 Nut ISO7040-M8-8-ga

Art no.	Weight [kg]	
112469	0.012	**Screw ISO10642-M8x30-8.8-ga**

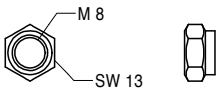




Art no.	Weight [kg]	
711071	0.004	**Nut ISO7040-M8-8-ga**

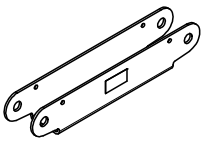
Self-locking.

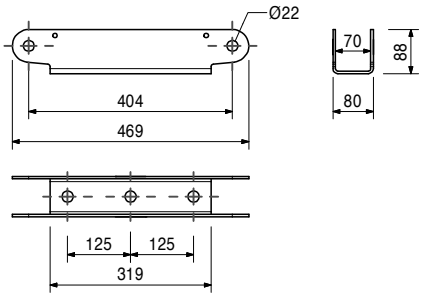




Art no.	Weight [kg]		B [mm]	L [mm]
140018	3.590	**Support Lever VCT 40**	80	469

Support lever for Suspension Head VCT





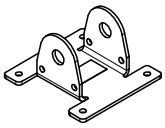
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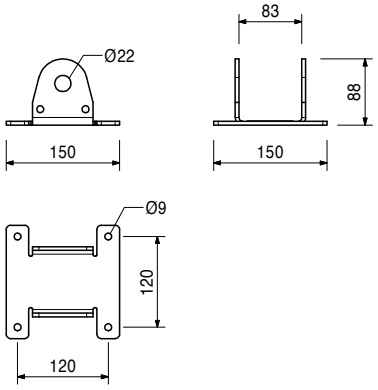
136290 Pin Ø20x98mm

018060 Cotter Pin 4/1 ga

Art no.	Weight [kg]		B [mm]	L [mm]
140016	1.030	**Support Lever Plate VCT**	150	150

Base plate for Support Lever VCT





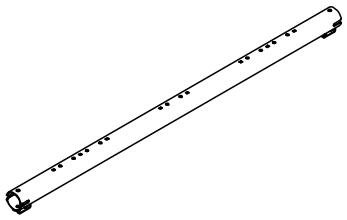
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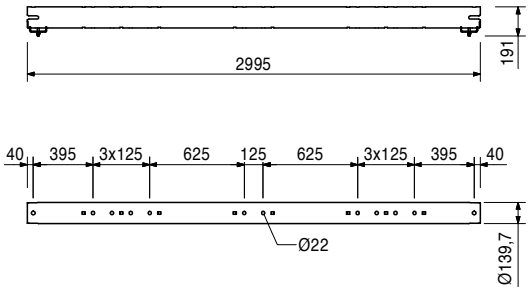
136290 Pin Ø20x98mm

018060 Cotter Pin 4/1 ga

Art no.	Weight [kg]		B [mm]	L [mm]
140426	77.100	**Rail Track VCT 300**	139.7	2995

Rail Track length 300 cm

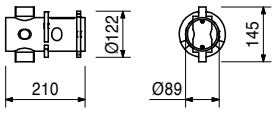




Art no.	Weight [kg]		B [mm]	L [mm]
140519	4.230	**Rail Track Coupler VCT**	122	210

Coupler between the Rail Tracks VCT 300 and for the Drive Rail VCT.





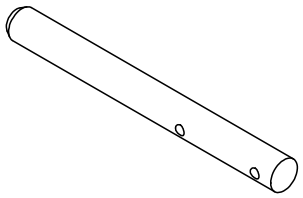
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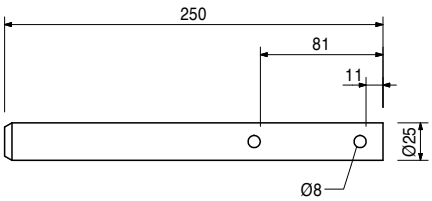
140293 Coupler Pin VCT

018060 Cotter Pin 4/1 ga

Art no.	Weight [kg]		B [mm]	L [mm]
140293	0.940	**Coupler Pin VCT**	25	250

Coupler pin as connecting part between Rail Track VCT and Rail Track Coupler VCT

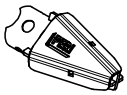


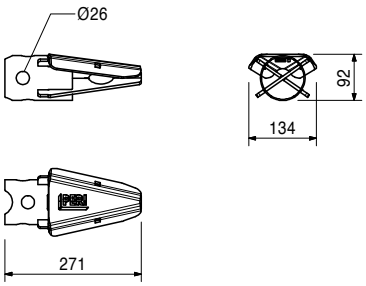


Accessory (not included)

018060 Cotter Pin 4/1 ga

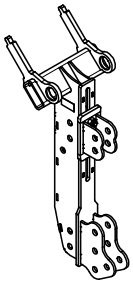
Art no.	Weight [kg]	
140843	2.570	**Travelling Nose VCT coat**

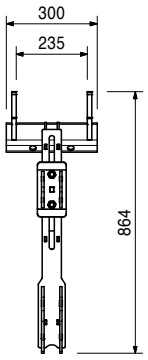


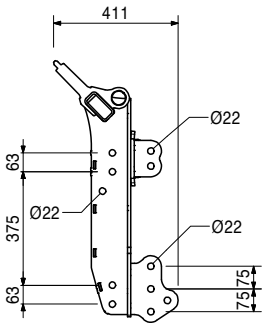


Art no.	Weight [kg]		B [mm]	L [mm]
140732	24.100	**Adjusting Unit VCT**	300	864

Adjustment unit for attaching and positioning the cantilever formwork. Maximum positioning range 257 mm



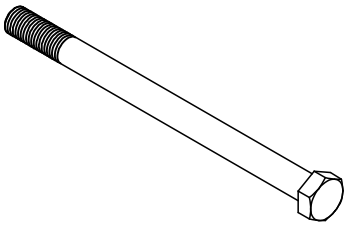


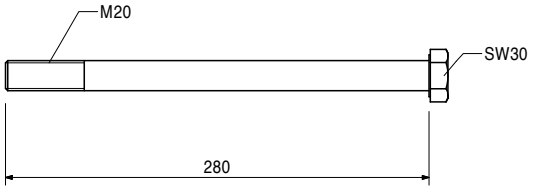


Accessory (not included)

128490	Articulated Spindle Ø21 35-47
725454	Screw ISO4014-M20x280-8.8-ga
781053	Nut ISO7040-M20-8-ga
104031	Fitting Pin Ø21x120mm
018060	Cotter Pin 4/1 ga

Art no.	Weight [kg]	
725454	0.760	**Screw ISO4014-M20x280-8.8-ga**





Art no.	Weight [kg]	
781053	0.065	**Nut ISO7040-M20-8-ga**

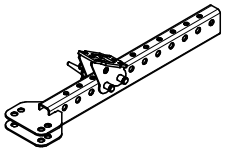
Self-locking.

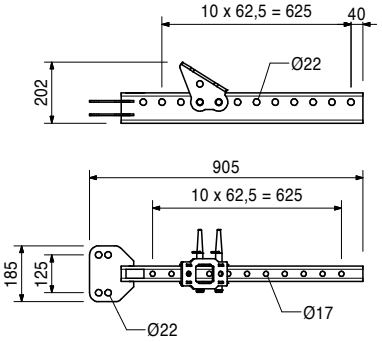




Art no.	Weight [kg]		B [mm]	L [mm]
140304	12.200	**Angle Connector SRU VCT**	185	905

Connector for vertical and horizontal Steel Waler SRU





Accessory (not included)

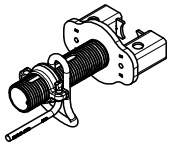
710232	Screw ISO4014-M16x130-8.8-ga
724562	Nut ISO4032-M16-8
104031	Fitting Pin Ø21x120mm
018060	Cotter Pin 4/1 ga

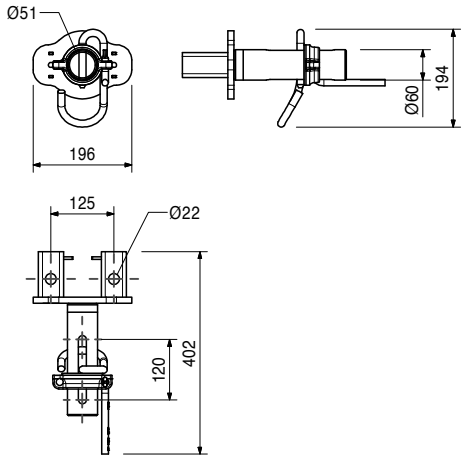
Included in delivery

104031 Fitting Pin Ø21x120mm 2 pc
022230 Cotter Pin 5/1 ga 2 pc

Art no.	Weight [kg]		B [mm]	L [mm]
140738	4.720	**Roller Unit Socket VCT**	196	402

Attachment for the Roller Unit VCT and connecting part on horizontal Steel Waler SRU

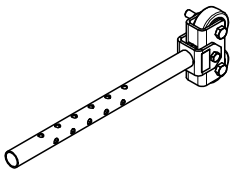


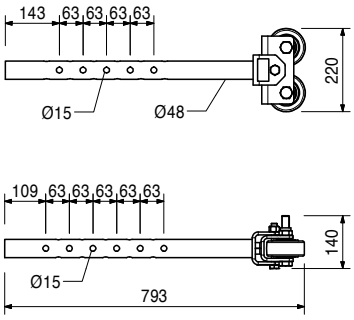


Accessory (not included)

104031	Fitting Pin Ø21x120mm
018060	Cotter Pin 4/1 ga

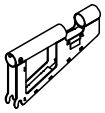
Art no.	Weight [kg]		B [mm]	L [mm]
140766	7.940	**Roller Unit VCT**	220	793

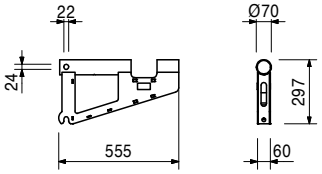




Art no.	Weight [kg]		B [mm]	L [mm]
140321	8.170	**Head Bracing VCT 100**	70	555

Bracing for distance of Suspension Heads VCT from 85 cm to 100 cm



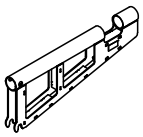


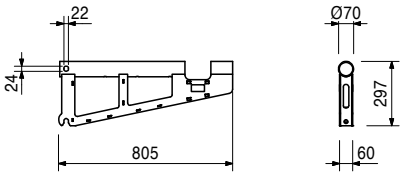
Accessory (not included)

140775 Spindle Head Bracing VCT
136290 Pin Ø20x98mm
018060 Cotter Pin 4/1 ga

Art no.	Weight [kg]		B [mm]	L [mm]
140317	11.100	**Head Bracing VCT 125**	70	805

Bracing for distance of Suspension Heads VCT from 110cm to 125 cm



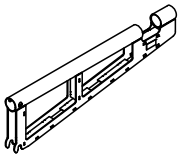


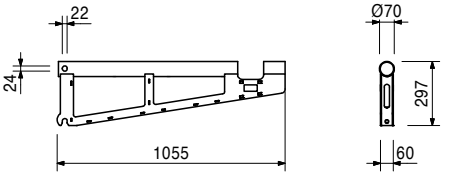
Accessory (not included)

140775 Spindle Head Bracing VCT
136290 Pin Ø20x98mm
018060 Cotter Pin 4/1 ga

Art no.	Weight [kg]		B [mm]	L [mm]
140313	13.500	**Head Bracing VCT 150**	70	1055

Bracing for distance of Suspension Heads VCT from 135 cm to 150 cm.



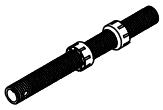


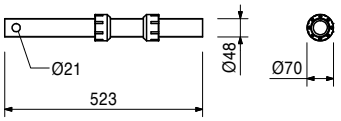
Accessory (not included)

140775 Spindle Head Bracing VCT
136290 Pin Ø20x98mm
018060 Cotter Pin 4/1 ga

Art no.	Weight [kg]		B [mm]	L [mm]
140775	4.250	**Spindle Head Bracing VCT**	70	523

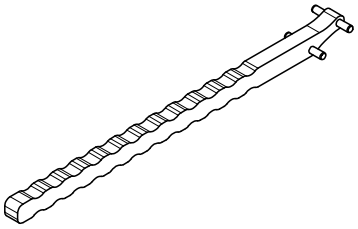
Spindle for Head Bracing VCT

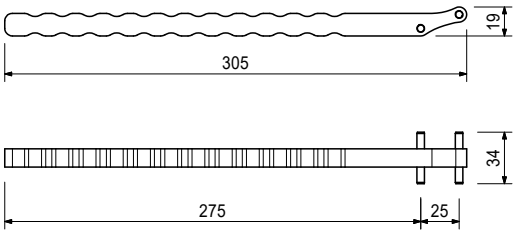




Art no.	Weight [kg]	
141484	0.389	**Face Spanner VCT**

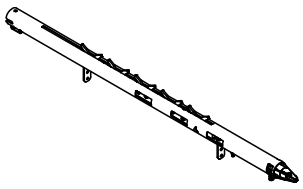
Tool for operating the VCT Spindle Head Stiffening nut.

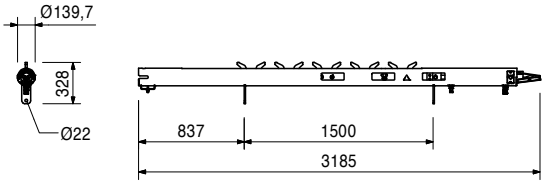




Art no.	Weight [kg]		B [mm]	L [mm]
140846	130.000	**Drive Rail VCT**	139.7	3185

Drive Rail with internal hydraulic cylinder.





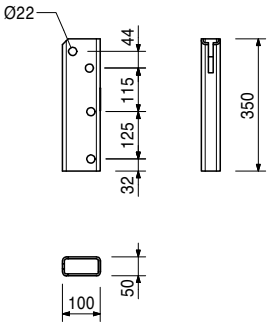
Included in delivery

140843 Travelling Nose VCT coat 1 pc

Art no.	Weight [kg]		B [mm]	L [mm]
141255	3.460	**Adapter Drive Rail VCT**	50	350

Adapter for connecting Steel Waler SRU to Drive Rail VCT





Accessory (not included)

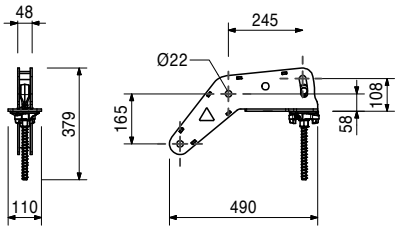
104031 Fitting Pin Ø21x120mm

018060 Cotter Pin 4/1 ga

Art no.	Weight [kg]		B [mm]	L [mm]
140420	8.980	**Striking Lever VCT**	110	490

Striking lever for lowering the cantilever formwork





Accessory (not included)

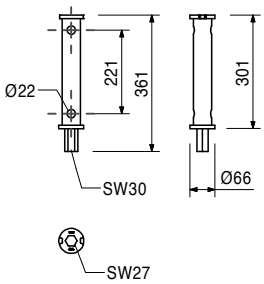
104031 Fitting Pin Ø21x120mm

018060 Cotter Pin 4/1 ga

Art no.	Weight [kg]		B [mm]	L [mm]
140748	1.790	**Wrench Adapter VCT**	66	66

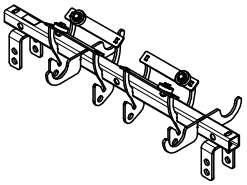
Tool for Cone bolt VCT M30 and Striking lever VCT

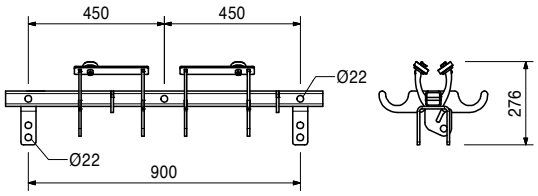


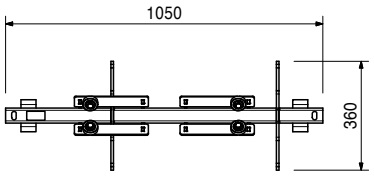


Art no.	Weight [kg]		B [mm]	L [mm]
141639	14.400	**Transport Unit VCT**	360	1050

Transport unit for two sets of Suspension Heads VCT, Head Bracings VCT and Cone Sockets VCT

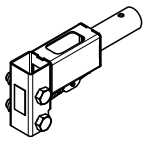


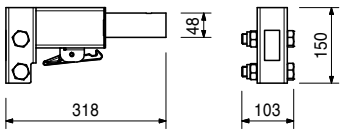




Art no.	Weight [kg]		B [mm]	L [mm]
141620	3.000	**End Piece Transport Unit VCT**	103	318

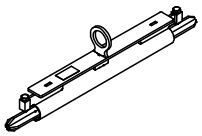
End part for Scaffold Tube Suspens VCT 50

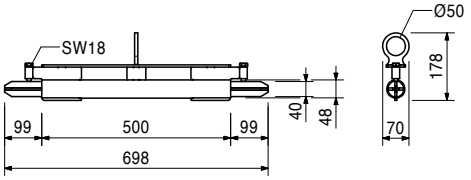




Art no.	Weight [kg]		B [mm]	L [mm]
141630	5.100	**Scaffold Tube Suspens VCT 50**	70	698

Connection of scaffold tubes d=48.3x3.2 mm

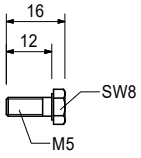




Art no.	Weight [kg]	
845270	0.040	**Pot Magnet Ø32mm**

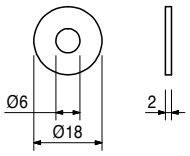
Art no.	Weight [kg]	
136874	0.003	**Screw ISO4017-M5x12-8.8-ga**





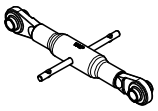
Art no.	Weight [kg]	
127036	0.003	**Washer ISO7093-1-6-200HV-ga**

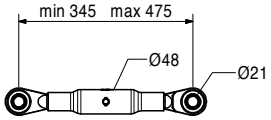


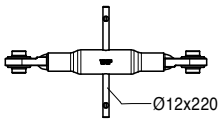


Art no.	Weight [kg]	
128490	3.410	**Articulated Spindle Ø21 35-47**

For aligning the formwork and the Brackets ACS-C.





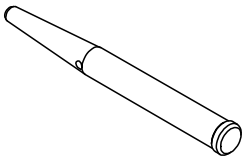


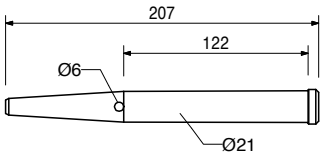
Accessory (not included)

105400	Pin Ø20x140mm ga
104031	Fitting Pin Ø21x120mm
018060	Cotter Pin 4/1 ga

Art no.	Weight [kg]	
104031	0.462	**Fitting Pin Ø21x120mm**

For different connections. High strength.

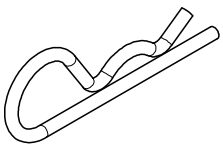




Accessory (not included)

018060	Cotter Pin 4/1 ga

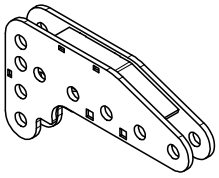
Art no.	Weight [kg]	
018060	0.014	**Cotter Pin 4/1 ga**

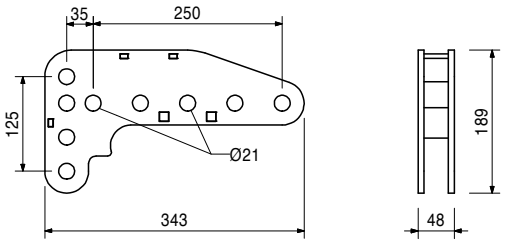




Art no.	Weight [kg]	
115623	5.040	**Corner Connector SRU VARIOKIT**

For a rigid connection of Steel Walers SRU.





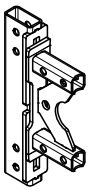
Accessory (not included)

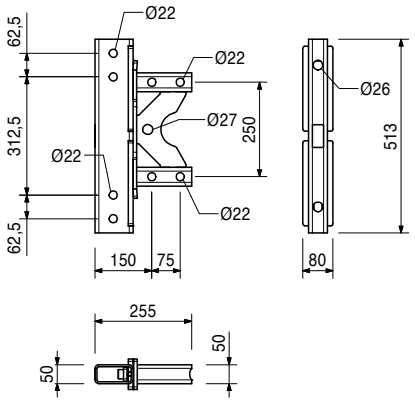
104031 Fitting Pin Ø21x120mm

018060 Cotter Pin 4/1 ga

Art no.	Weight [kg]		B [mm]	L [mm]
166766	12.600	**Parallel Connector VARIOKIT**	80	513

Telescopic connection of two parallel Steel Walers SRU. Telescopic range 160 mm





Accessory (not included)

104031 Fitting Pin Ø21x120mm

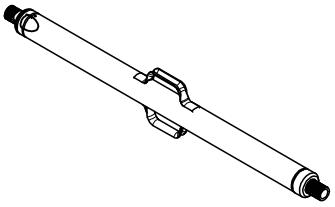
018060 Cotter Pin 4/1 ga

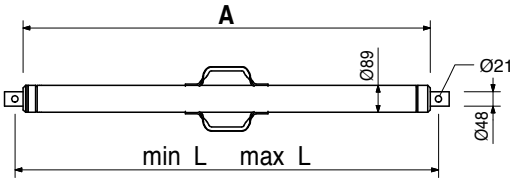
Art no.	Weight [kg]		min. L [mm]	max. L [mm]
		Heavy Duty Spindles SLS		
111035	12.000	**Heavy Duty Spindle SLS 40-80**	400	800
101773	15.300	**Heavy Duty Spindle SLS 80-140**	800	1400
101774	18.300	**Heavy Duty Spindle SLS 100-180**	1000	1800
101776	24.900	**Heavy Duty Spindle SLS 140-240**	1400	2400
101778	32.300	**Heavy Duty Spindle SLS 200-300**	2000	3000
101779	38.500	**Heavy Duty Spindle SLS 260-360**	2600	3600
109726	44.800	**Heavy Duty Spindle SLS 320-420**	3200	4200
109785	51.000	**Heavy Duty Spindle SLS 380-480**	3800	4800

Used as adjustable spindle for truss beams made of Steel Walers SRU and Climbing Rails RCS.

Notes

Permissible load see PERI Design Tables, Type Test is available.



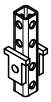


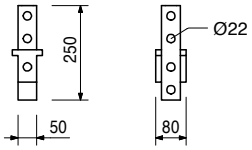
Accessory (not included)

110477 Spindle Adaptor SLS/RCS
104031 Fitting Pin Ø21x120mm
018060 Cotter Pin 4/1 ga

Art no.	Weight [kg]	
111279	2.450	**Cross Connector VARIOKIT**

For right-angled connection of Steel Walers SRU with SRU or Steel Walers SRU with RCS.





Accessory (not included)

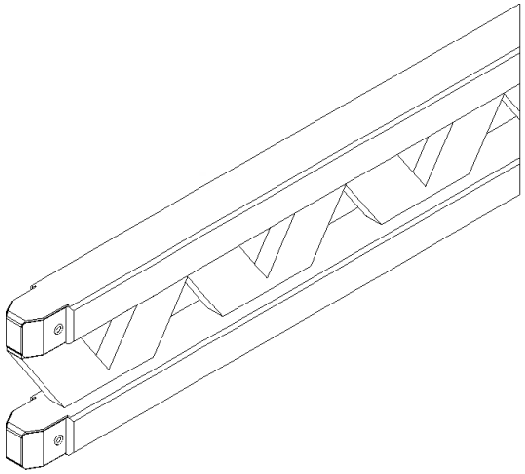
104031 Fitting Pin Ø21x120mm
018060 Cotter Pin 4/1 ga

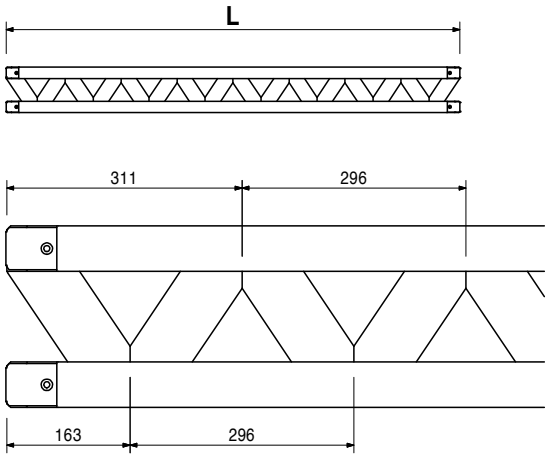
Art no.	Weight [kg]		L [mm]
		Girders GT 24	
075100	5.300	**Girder GT 24 90**	918
075120	7.100	**Girder GT 24 120**	1214
075150	8.900	**Girder GT 24 150**	1510
075180	10.600	**Girder GT 24 180**	1806
075210	12.400	**Girder GT 24 210**	2102
075240	14.200	**Girder GT 24 240**	2398
075270	15.900	**Girder GT 24 270**	2694
075300	17.700	**Girder GT 24 300**	2990
075330	19.500	**Girder GT 24 330**	3286
075360	21.200	**Girder GT 24 360**	3582
075390	23.000	**Girder GT 24 390**	3878
075420	24.800	**Girder GT 24 420**	4174
075450	26.600	**Girder GT 24 450**	4470
075480	28.300	**Girder GT 24 480**	4766
075510	30.100	**Girder GT 24 510**	5062
075540	31.900	**Girder GT 24 540**	5358
075570	33.600	**Girder GT 24 570**	5654
075600	35.400	**Girder GT 24 600**	5950

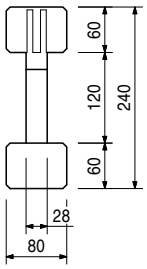
Universal formwork girder made of wood.

Notes

Special lengths over 6.00 m are possible and can be provided on request.





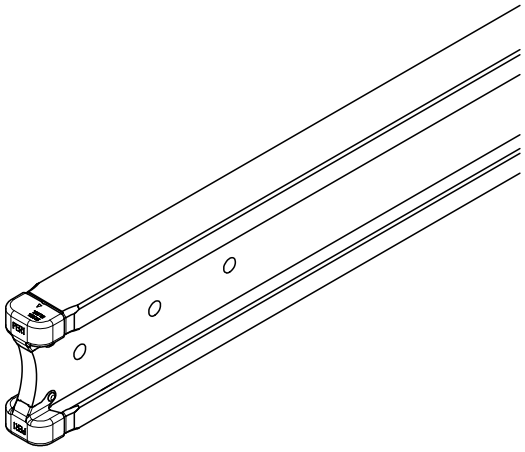


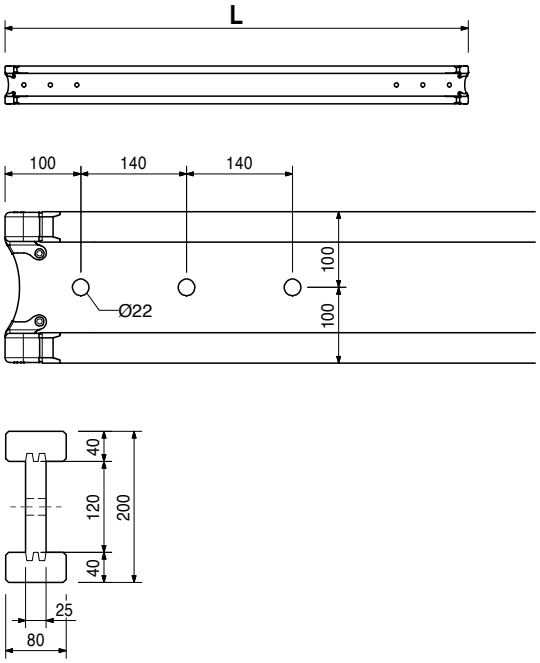
Art no.	Weight [kg]	
		Girders VT 20K
074990	8.230	**Girder VT 20K 145**
074905	12.010	**Girder VT 20K 215**
074910	13.630	**Girder VT 20K 245**
074890	14.710	**Girder VT 20K 265**
074920	16.060	**Girder VT 20K 290**
074930	18.220	**Girder VT 20K 330**
074940	19.840	**Girder VT 20K 360**
074950	21.460	**Girder VT 20K 390**
074960	24.700	**Girder VT 20K 450**
074970	26.860	**Girder VT 20K 490**
074980	32.260	**Girder VT 20K 590**
074900	0.000	**Cutting Cost for VT Grider**

Universal formwork girder made of wood.

Notes

The girder fulfils all requirements of DIN EN 13377 class P20 (Declaration of Conformity).



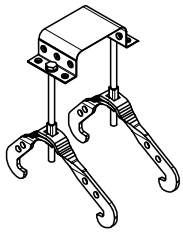


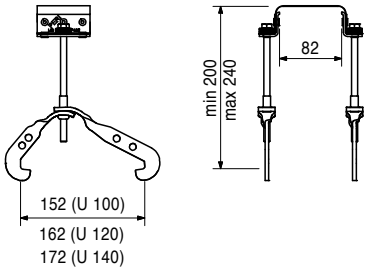
Art no.	Weight [kg]	
104931	0.829	**Hook Strap Uni HBU 20-24**

For fixing GT 24 Girders or VT 20 Girders to Steel Walers SRZ and SRU Profiles U100 – U140.

Notes

The girders can be mounted right-angled or diagonally to the steel walers and also outside of the nodes.



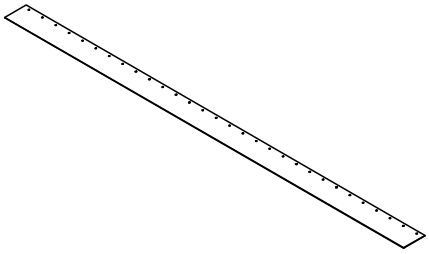


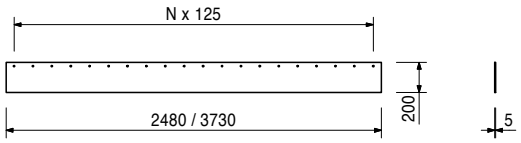
Accessory (not included)

024540 Wood Screw 6x40 SK-TX30 HPI

Art no.	Weight [kg]		L [mm]
125945	3.460	**Cover Strip LPS 20x373**	3730

Elastic covering for closing gaps between screen elements.





Accessory (not included)

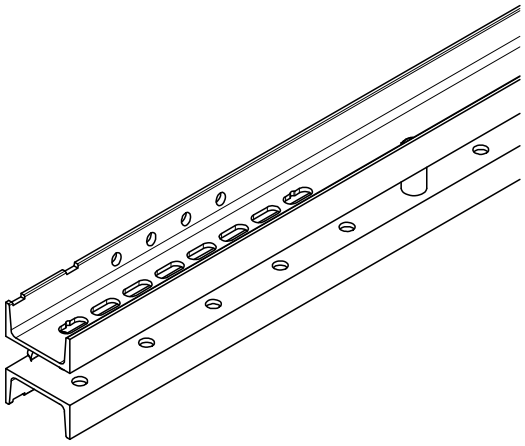
126268 Cable Bind. PA 6.6 SW219x7,6mm

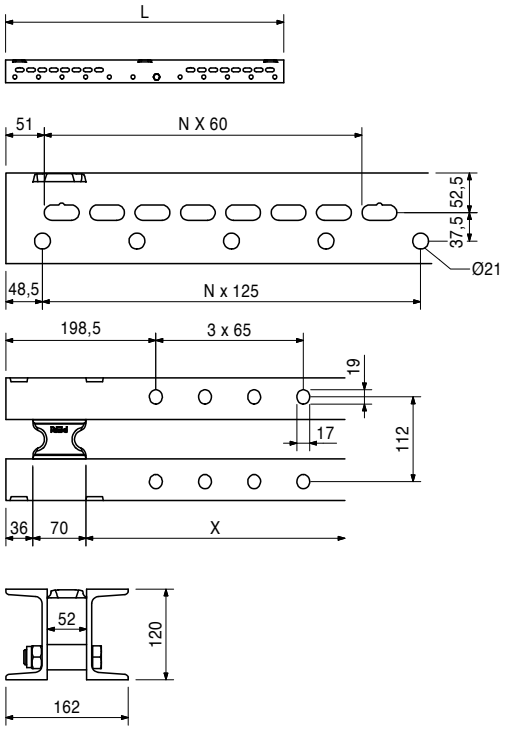
Art no.	Weight [kg]		L [mm]
		Steel Walers SRU U120	
103868	18.100	**Steel Waler SRU 72 U120**	722
103871	24.200	**Steel Waler SRU 97 U120**	972
123809	29.500	**Steel Waler SRU 117 U120**	1172
103874	30.900	**Steel Waler SRU 122 U120**	1222
103877	38.100	**Steel Waler SRU 147 U120**	1472
103886	44.700	**Steel Waler SRU 172 U120**	1722
125088	46.100	**Steel Waler SRU 177 U120**	1772
103889	52.000	**Steel Waler SRU 197 U120**	1972
103898	58.600	**Steel Waler SRU 222 U120**	2222
123812	63.000	**Steel Waler SRU 237 U120**	2372
103892	65.600	**Steel Waler SRU 247 U120**	2472
103929	72.000	**Steel Waler SRU 272 U120**	2722
103903	81.000	**Steel Waler SRU 297 U120**	2972
103906	92.600	**Steel Waler SRU 347 U120**	3472
103915	106.000	**Steel Waler SRU 397 U120**	3972
103918	119.000	**Steel Waler SRU 447 U120**	4472
103922	135.000	**Steel Waler SRU 497 U120**	4972
103925	146.000	**Steel Waler SRU 547 U120**	5472
103928	159.000	**Steel Waler SRU 597 U120**	5972

Universal Steel Waler Profile U120 used as waling for girder wall formwork and for diverse special applications. With adjustable spacers.

Notes

Steel grade according to DIN EN 10025 or 10027: S235JR
SRU 120 Wy = 121.4 cm³, Iy = 728 cm⁴.
SRU 140 Wy = 172,8 cm³, Iy = 1210 cm⁴.

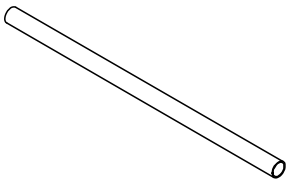


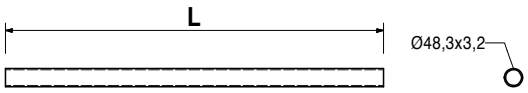


Accessory (not included)

135912 Spacer SRU

Art no.	Weight [kg]		L [mm]
		Scaff. Tubes 48.3x3.2mm ga	
026415	3.550	**Scaff. Tube 48.3x3.2mm lfm ga**	1000
026411	3.550	**Scaff. Tube 48.3x3.2mm 1m ga**	1000
026412	7.100	**Scaff. Tube 48.3x3.2mm 2m ga**	2000
125976	8.900	**Scaff. Tube 48,3x3,2mm 2,5m ga**	2500
026413	10.650	**Scaff. Tube 48.3x3.2mm 3m ga**	3000
114287	12.500	**Scaff. Tube 48,3x3,2mm 3,5m ga**	3500
026414	14.200	**Scaff. Tube 48.3x3.2mm 4m ga**	4000
026419	17.750	**Scaff. Tube 48.3x3.2mm 5m ga**	5000
026418	21.600	**Scaff. Tube 48.3x3.2mm 6m ga**	6000
026417	0.000	**Cutting Costs Scaffold Tube**	1

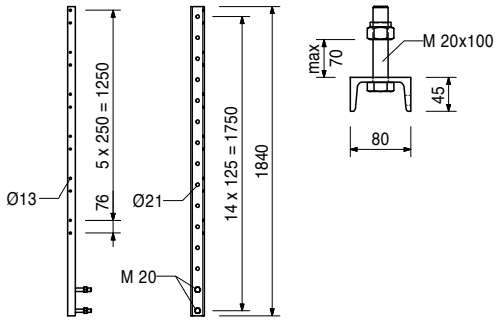




Art no.	Weight [kg]	
114328	16.600	**Guardrail Post RCS/SRU 184**

For assembly of the guardrail on the Platform Beam RCS/SRU or Guardrail Post Holder Multi.





Accessory (not included)

110296	Clamp A64 DIN3570-M12-ga
710709	Screw DIN603-M8x65-4.8-ga-Nut
710330	Nut ISO4032-M12-8.8-ga
780354	Washer ISO7089-8-200HV-ga
057345	Washer 9mm DIN434 ga

Included in delivery

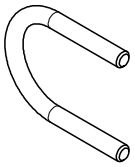
114727 Screw ISO4017-M20x100-8.8-ga 2 pc
781053 Nut ISO7040-M20-8-ga 2 pc

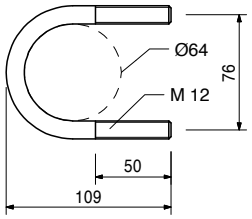
Art no.	Weight [kg]	
110296	0.220	**Clamp A64 DIN3570-M12-ga**

For assembling Scaffold Tubes on Guardrail Posts RCS.

Notes

Wrench size SW19.



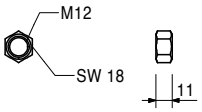


Accessory (not included)

710330 Nut ISO4032-M12-8.8-ga

Art no.	Weight [kg]	
710330	0.017	**Nut ISO4032-M12-8.8-ga**



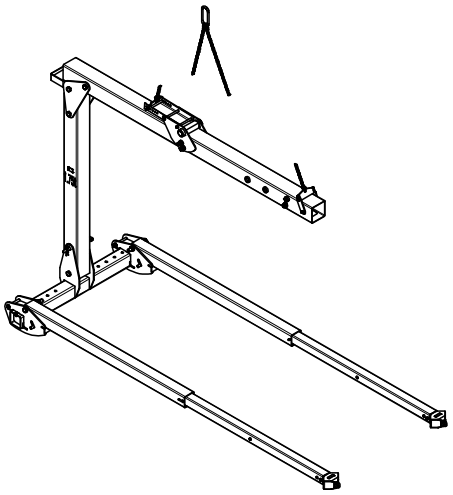


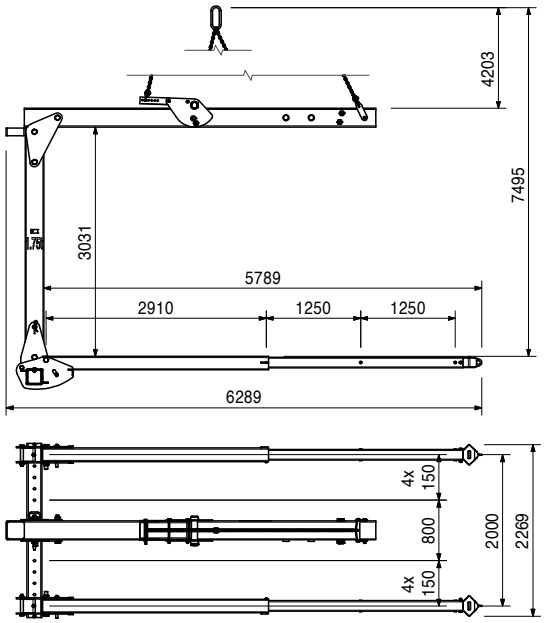
Art no.	Weight [kg]	
103212	1,570.000	**Lifting Fork 1.75t/8m, mount.**

For moving PERI Slab Tables. Table length up to 8.00 m

Notes

Follow Instructions for Use!
Permissible load-bearing capacity 1.75 t.



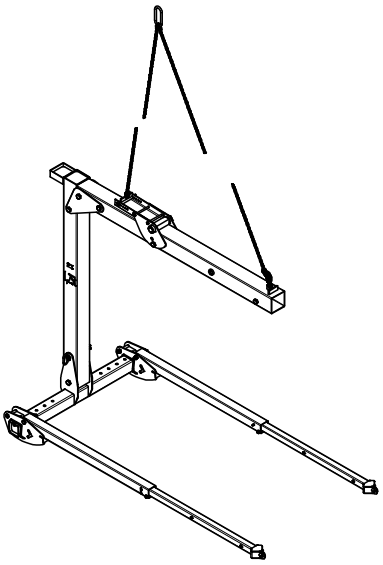


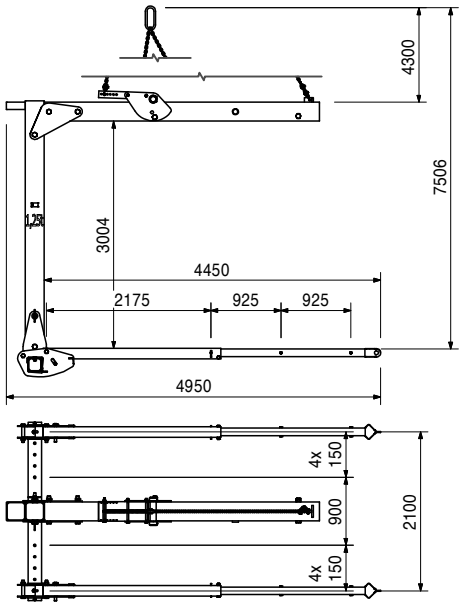
Art no.	Weight [kg]	
112230	1,010.000	**Lifting Fork 1.25t/6m**

For moving PERI Slab Tables. Table length up to 6.00 m.

Notes

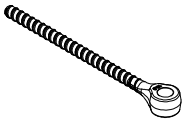
Follow Instructions for Use!
Permissible load-bearing capacity 1.25 t.

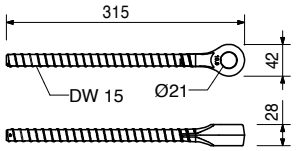




Art no.	Weight [kg]	
037150	0.641	**Tie Yoke**

For fixing SRU Steel Walers to the strongback.





Accessory (not included)

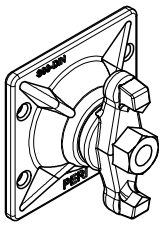
030370 Wingnut Pivot Plate DW15 ga

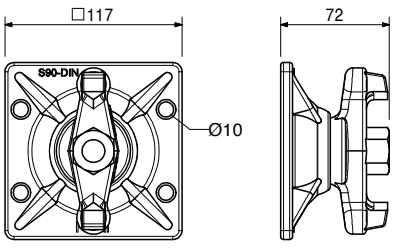
Art no.	Weight [kg]	
030370	1.660	**Wingnut Pivot Plate DW15 ga**

For anchoring with Tie Rod DW15 or B15.
With articulated, captive nut. Maximum inclination of anchor: +/- 8°.

Notes

Wrench size SW27.
Permissible load 90,0 kN.





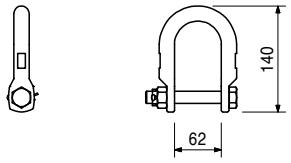
Art no.	Weight [kg]	
127821	0.957	**Crane Eye-2 CB 240 0.7t**

For assembly on the Climbing Bracket CB 240 when used as working scaffold.

Notes

Follow Instructions for Use!
Permissible load-bearing capacitiy 700.0 kg.





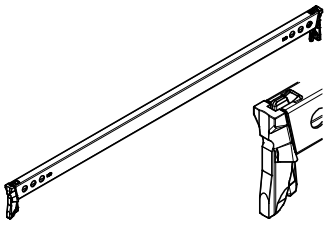
Included in delivery

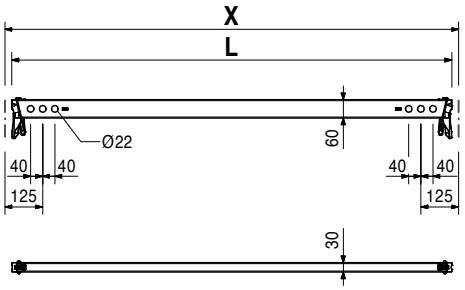
128335 Screw ISO4014-M16x110 mach 1 pc
126248 Castle-Nut DIN935-M16-8-ga 1 pc
722825 Split pin ISO1234-4x30-St 1 pc

Art no.	Weight [kg]		L [mm]	X [mm]
		Horizontal Ledgers UH-2		
131995	1.390	**Horizontal Ledger UH-2 25**	204	250
133900	1.580	**Horizontal Ledger UH-2 33**	284	330
131998	2.210	**Horizontal Ledger UH-2 50**	454	500
133903	2.720	**Horizontal Ledger UH-2 67**	624	670
132213	2.680	**Horizontal Ledger UH-2 75**	704	750
137911	3.740	**Horizontal Ledger UH-2 100E**	954	1000
432004	3.730	**Horizontal Ledger UH-2 100**	954	1000
132007	4.500	**Horizontal Ledger UH-2 125**	1204	1250
140107	4.760	**Horizontal Ledger UH-2 133E**	1284	1330
132010	4.670	**Horizontal Ledger UH-2 150**	1454	1500
132013	5.330	**Horizontal Ledger UH-2 175**	1704	1750
132016	6.620	**Horizontal Ledger UH-2 200**	1954	2000
132019	6.650	**Horizontal Ledger UH-2 225**	2204	2250
132025	8.210	**Horizontal Ledger UH-2 250**	2454	2500
132022	9.590	**Horizontal Ledger UH-2 300**	2954	3000

Notes

With color coding for length identification.

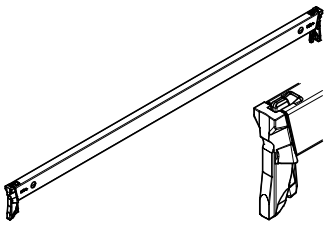


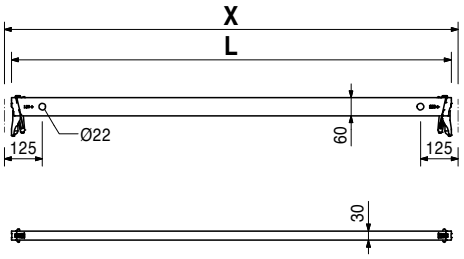


Art no.	Weight [kg]		L [mm]	X [mm]
		Horizontal Ledgers UH Plus		
414613	1.420	**Horizontal Ledger UH 25 Plus**	204	250
414595	2.070	**Horizontal Ledger UH 50 Plus**	454	500
429982	2.520	**Horizontal Ledger UH 67 Plus**	624	670
414629	2.730	**Horizontal Ledger UH 75 Plus**	704	750
414632	4.390	**Horizontal Ledger UH 100 Plus**	954	1000
414638	5.340	**Horizontal Ledger UH 125 Plus**	1204	1250
414641	4.720	**Horizontal Ledger UH 150 Plus**	1454	1500
417032	5.380	**Horizontal Ledger UH 175 Plus**	1704	1750
414645	6.040	**Horizontal Ledger UH 200 Plus**	1954	2000
416356	6.700	**Horizontal Ledger UH 225 Plus**	2204	2250
414648	7.360	**Horizontal Ledger UH 250 Plus**	2454	2500
414651	8.680	**Horizontal Ledger UH 300 Plus**	2954	3000

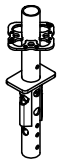
Notes

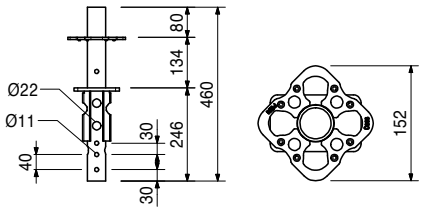
With length marking for easier identification.





Art no.	Weight [kg]	
136778	2.840	**VARIOKIT Base Stand. UVA weld**

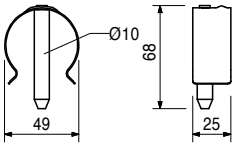




Art no.	Weight [kg]	
111053	0.059	**Locking Pin Ø48-57mm**

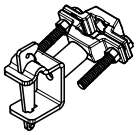
As tension-proof connection of standards with Ø 48 up to 57 mm.

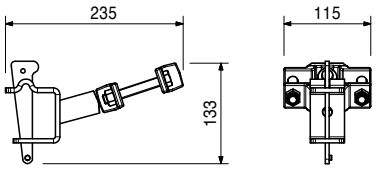




Art no.	Weight [kg]	
134520	1.670	**Ladder Connector Ledger UAM-S**

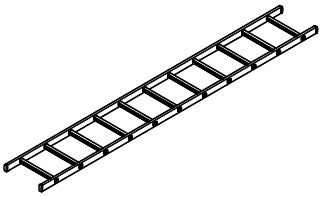
Is used to attach ladders up to maximum stile size 25 x 80 mm or round tubes up to Ø = 48.3 mm.

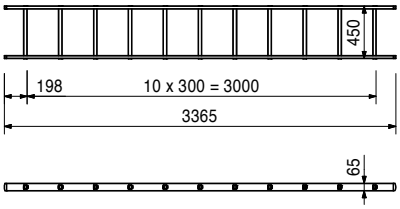




Art no.	Weight [kg]	
135529	5.840	**Ladder Alu UAl 300-A**

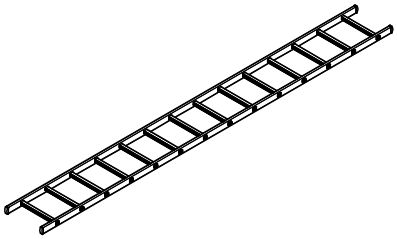
This ladder is no leaning ladder according EN 131. Use the ladder always with suitable ladder connectors!

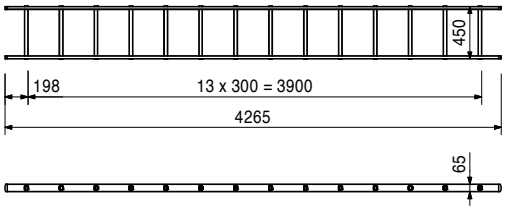




Art no.	Weight [kg]	
135530	7.593	**Ladder Alu UAl 400-A**

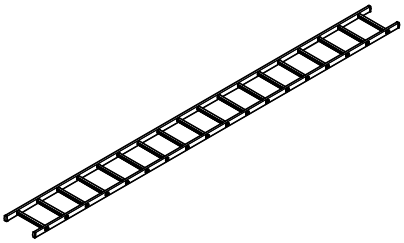
This ladder is no leaning ladder according EN 131. Use the ladder always with suitable ladder connectors!

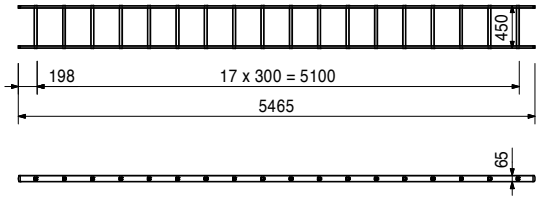




Art no.	Weight [kg]	
135531	10.100	**Ladder Alu UAl 500-A**

This ladder is no leaning ladder according EN 131. Use the ladder always with suitable ladder connectors!

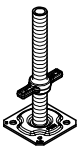


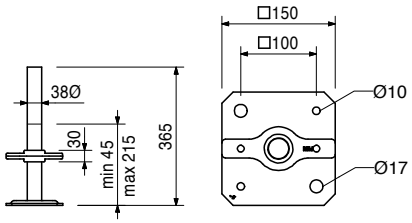


Art no.	Weight [kg]	
116762	2.830	**Adj. Base Plate UJB 38-36/17**

Notes

With captive quick jack nut.





Accessory (not included)

100863 Spindle Locking UJS

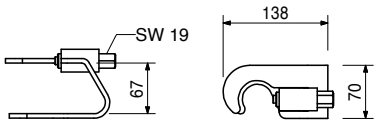
Art no.	Weight [kg]	
100863	1.020	**Spindle Locking UJS**

Locks base spindles and section spindles Ø 38 mm in the leg during moving procedures.

Notes

Permissible load 1.5 kN.



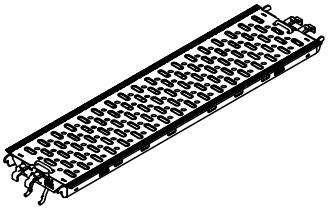


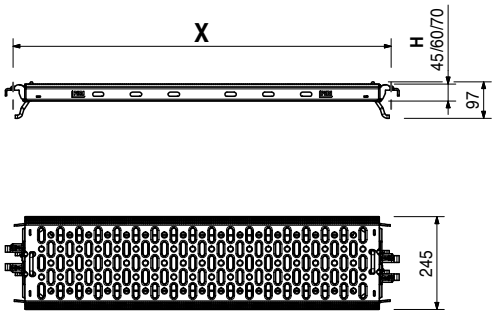
Art no.	Weight [kg]		X [mm]	zul. p [kN/m²]
		Steel Decks UDG-2 25		
138607	2.200	**Steel Deck UDG-2 25x25**	250	6
132479	3.190	**Steel Deck UDG-2 25x50**	500	6
132483	3.960	**Steel Deck UDG-2 25x67**	670	6
132488	4.320	**Steel Deck UDG-2 25x75**	750	6
132492	5.450	**Steel Deck UDG-2 25x100**	1000	6
132502	6.590	**Steel Deck UDG-2 25x125**	1250	6
132505	7.730	**Steel Deck UDG-2 25x150**	1500	6
132508	9.340	**Steel Deck UDG-2 25x200**	2000	6
132511	12.900	**Steel Deck UDG-2 25x250**	2500	4.5
132515	15.800	**Steel Deck UDG-2 25x300**	3000	3

Length X: 50 - 150 with H of 45 mm.
Length X: 200 - 250 with H of 60 mm.
Length X: 300 with H of 70 mm.

Notes

Values correspond to EN 12811-1.
With color plugs for length identification.



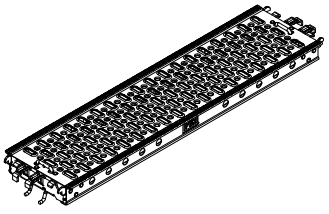


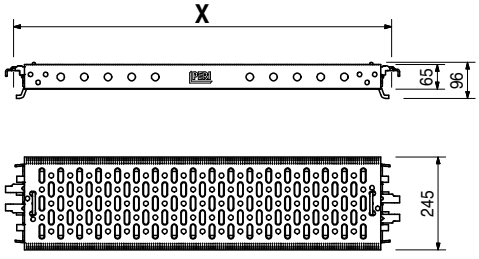
Art no.	Weight [kg]		X [mm]	zul. p [kN/m²]
		Steel Decks UDG 25		
424124	3.880	**Steel Deck UDG 25x50**	500	6
432858	4.810	**Steel Deck UDG 25x67**	670	6
424121	5.260	**Steel Deck UDG 25x75**	750	6
424118	6.630	**Steel Deck UDG 25x100**	1000	6
424115	8.010	**Steel Deck UDG 25x125**	1250	6
424112	9.410	**Steel Deck UDG 25x150**	1500	6
424109	12.200	**Steel Deck UDG 25x200**	2000	6
423771	14.900	**Steel Deck UDG 25x250**	2500	4.5
424915	17.700	**Steel Deck UDG 25x300**	3000	3

Assembly onto Horizontal Ledgers UH.

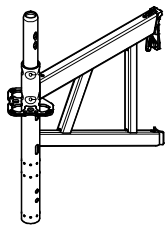
Notes

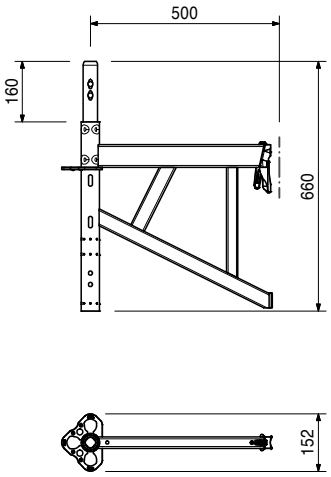
Values correspond to EN 12811-1.





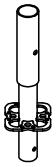
Art no.	Weight [kg]	
136923	6.380	**Console Bracket ECM 50**

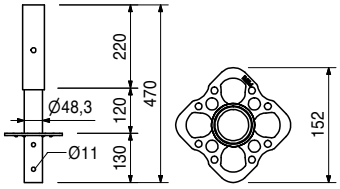




Art no.	Weight [kg]	
133499	2.260	**Base Standard UVB 25**

For fitting onto the base spindles directly. Can also be used as 25 cm standard.

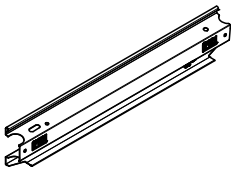


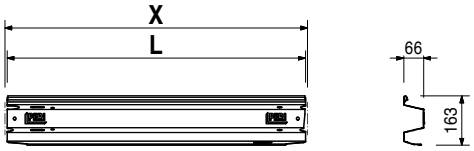


Art no.	Weight [kg]		L [mm]	X [mm]
		Toeboards Steel UPY		
132592	0.413	**Toeboard Steel UPY 25**	236	250
110213	0.927	**Toeboard Steel UPY 50**	486	500
110514	1.440	**Toeboard Steel UPY 75**	736	750
110073	1.960	**Toeboard Steel UPY 100**	986	1000
134628	2.480	**Toeboard Steel UPY 125**	1236	1250
117987	1.000	**Toeboard Steel UPY 133**	1316	1330
110160	2.990	**Toeboard Steel UPY 150**	1486	1500
110176	4.020	**Toeboard Steel UPY 200**	1986	2000
110208	5.060	**Toeboard Steel UPY 250**	2486	2500
110211	6.090	**Toeboard Steel UPY 300**	2986	3000

Notes

Surface, galvanised and painted in yellow.





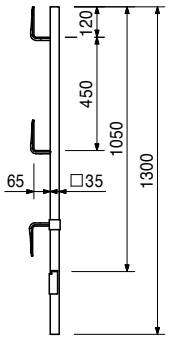
Accessory (not included)

134542 Toeboard Compensation UPY-L

Art no.	Weight [kg]	
116292	4.720	**Guardrail Post-2 HSGP**

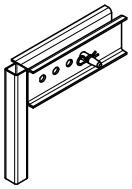
As guardrail for different systems.

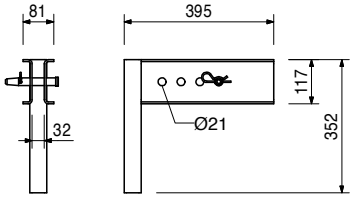




Art no.	Weight [kg]	
101290	5.670	**Guardrail Holder GT 24/VT 20**

For assembling a guardrail to GT 24 or VT 20 Girders.





Accessory (not included)

116292	Guardrail Post-2 HSGP
061260	Guardrail Post SGP

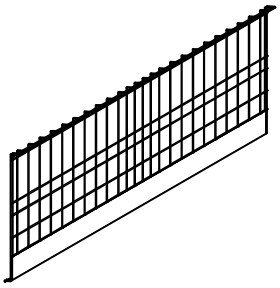
Included in delivery

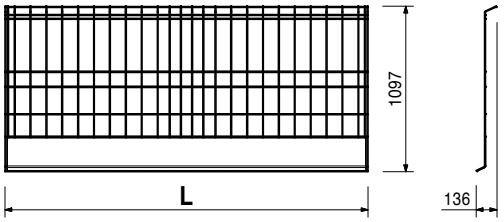
105400 Pin Ø20x140mm ga 1 pc
018060 Cotter Pin 4/1 ga 1 pc

Art no.	Weight [kg]		L [mm]
		Side Mesh Barriers PMB S	
138087	5.940	**Side Mesh Barrier PMB S 90**	900
138086	7.920	**Side Mesh Barrier PMB S 120**	1200
138085	14.560	**Side Mesh Barrier PMB S 240**	2400
138084	16.060	**Side Mesh Barrier PMB S 260**	2600

Notes

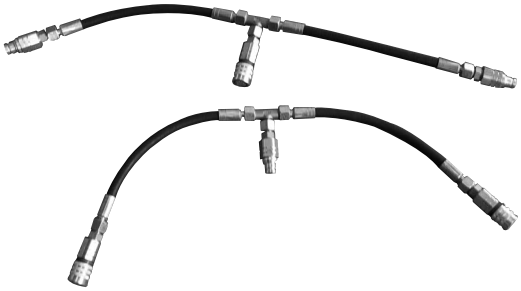
Maximum distance of posts with Side Mesh Barrier: PMB S 260 max. 2.40 m.





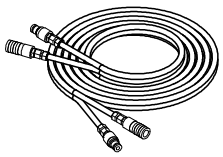
Art no.	Weight [kg]	
112421	3.000	**Hydr. Accum. Piece RCS**

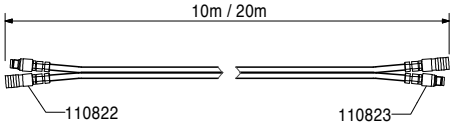
To double the volume of the oil at the Hydraulic Pump RCS. Also doubles the speed.



Art no.	Weight [kg]	
		Hydr.Twin Hoses RCS
110069	8.500	**Hydr.Twin Hose RCS 10m**
110070	15.300	**Hydr.Twin Hose RCS 20m**

Two permanently connected hydraulic hoses for connecting hydraulic pumps with hydraulic climbing devices.





Included in delivery

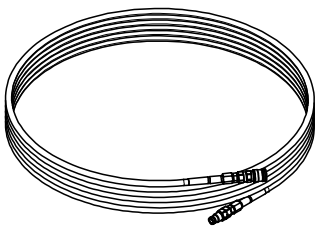
128992 Pin ISO16028 DN10 R3/8IG 2 pc
128993 Sleeve ISO16028 DN10 R3/8IG 2 pc
051750 Male Stud Coupl. X-GE12PSR-ED 4 pc

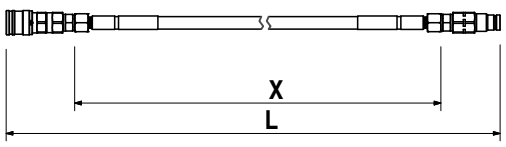
Art no.	Weight [kg]		L [mm]	X [mm]
		Hydr.Hoses 853-2SN-DN08-FF		
129035	0.996	**Hydr.Hose 853-2SN-DN08-FF 1m**	1169	1000
129036	1.430	**Hydr.Hose 853-2SN-DN08-FF 2m**	2169	2000
129419	2.690	**Hydr.Hose 853-2SN-DN08-FF 5m**	5170	5000
129420	4.900	**Hydr.Hose 853-2SN-DN08-FF 10m**	10170	10000
129421	7.120	**Hydr.Hose 853-2SN-DN08-FF 15m**	15170	15000
129422	9.330	**Hydr.Hose 853-2SN-DN08-FF 20m**	20170	20000

Hydraulic hoses with quick couplings and nominal diameter 8 mm.

Notes

Follow applicable Safety Regulations for the installation and maintenance of hydraulic lines!





Included in delivery

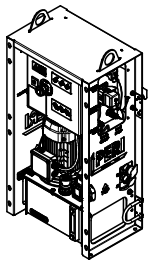
128992 Pin ISO16028 DN10 R3/8IG 1 pc
128993 Sleeve ISO16028 DN10 R3/8IG 1 pc
051750 Male Stud Coupl. X-GE12PSR-ED 2 pc

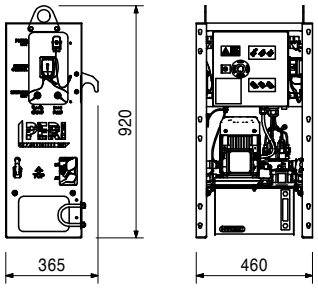
Art no.	Weight [kg]	
135500	47.000	**Hydr.P. RCS MAX 2x210/380-460V**

Hydraulic Pump for driving two Climbing Devices RCS MAX 75 or Climbing Device-2 RCS 50.
Connecting several units enables synchronous climbing of all climbing units.

Notes

Follow Assembly Instructions of the manufacturer!
See PERI Product Information.
Only use original PERI Hydraulic Oil.





Accessory (not included)

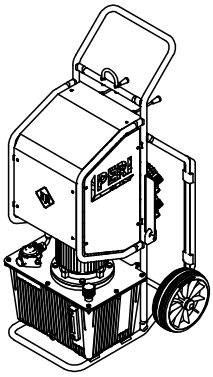
135606	Return Filter RCS MAX
135607	Tank Breather Filter RCS MAX
137281	Hydr.Oil Filter Pump CE
137282	Hydr.Oil Filterelement 500
137283	Suction-/Pressure Hose 250

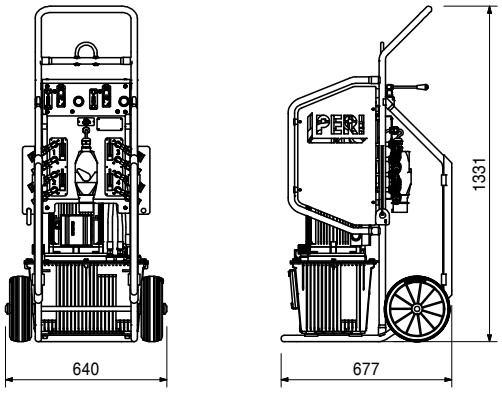
Art no.	Weight [kg]	
109766	109.000	**Hydr.Pump RCS 4x190/380-460V**

Hydraulic pump for actuating the Climbing Device RCS 50 or LPS 30.

Notes

Follow Instructions for Use.
Use only original PERI Hydraulic Oil.



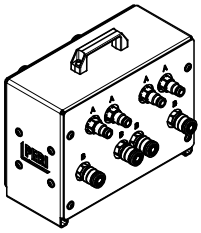


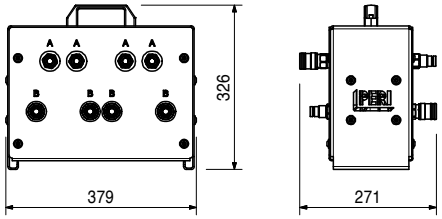
Accessory (not included)

057376	Hydr.Oil ISO11158 HVI46 20l
131270	Hydr.Oil ISO11158 HM10 20l
131274	Hydr.Oil ISO11158 HVI22 20l
137373	Hydr.Oil ISO11158 HVI32 20l

Art no.	Weight [kg]		B [mm]	L [mm]
141572	25.800	**Flow Divider RCS MAX 2/4x210**	271	379

Flow divider for even distribution of 2 to max. 4 volume flows.





Accessory (not included)

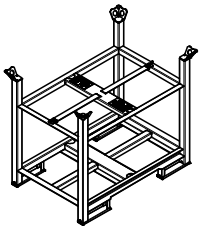
129035 Hydr.Hose 853-2SN-DN08-FF 1m

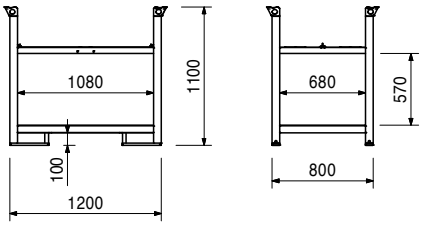
Art no.	Weight [kg]	
136165	59.000	**Pallet RP Hydr.Pump RCS MAX**

For transportation of up to 4 Hydraulic Pumps RCS MAX.

Notes

Pay attention to the stacking height!
Follow Assembly Instructions!



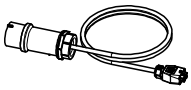


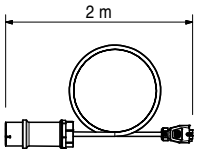
Art no.	Weight [kg]	
135499	0.800	**Power Cab. RCS MAX CEE-32A 2m**

For connecting max. 8 Hydraulic Pumps RCS MAX 2x210 bar to the power supply.

Notes

Follow Assembly Instructions of the manufacturer!
With CEE-Plug 400 V, 32 A. Manual phase inverter inside.



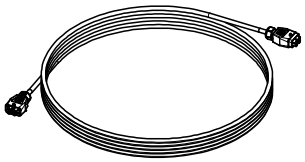


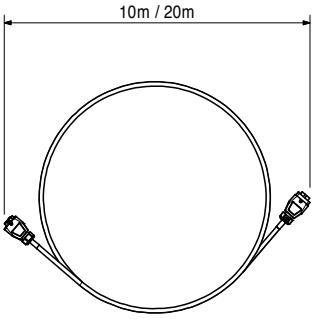
Art no.	Weight [kg]	
		Power Conn. Cables RCS MAX
135498	2.500	**Power Conn. Cable RCS MAX 10m**
135501	4.700	**Power Conn. Cable RCS MAX 20m**

For the power supply between max. 8 Hydraulic Pumps RCS MAX 2x210 bar.

Notes

Follow Assembly Instructions of the manufacturer!





Accessory (not included)

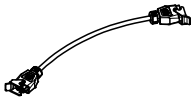
135502 Conn. Power Cable RCS MAX

Art no.	Weight [kg]	
135502	0.200	**Conn. Power Cable RCS MAX**

For connecting two Power Connection Cables RCS MAX.

Notes

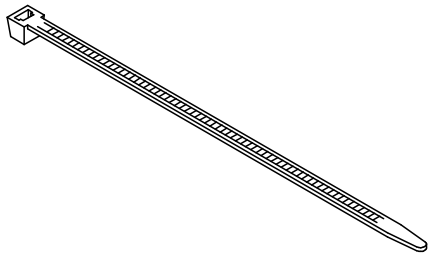
Follow Assembly Instructions of the manufacturer!
Lenght 18 cm.

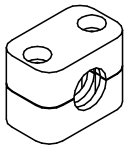


Art no.	Weight [kg]	
051760	0.004	**Cable Binder NT-240H**

Notes

Delivery unit = 1 pc.





051758

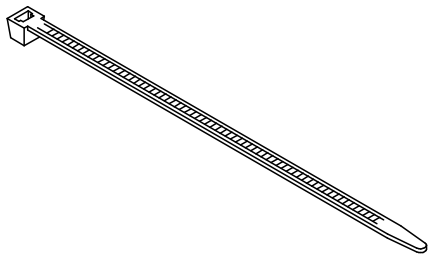


051759



051775

Art no.	Weight [kg]	
137346	0.007	**Cable Binder 7.8x540mm**

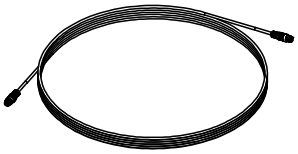


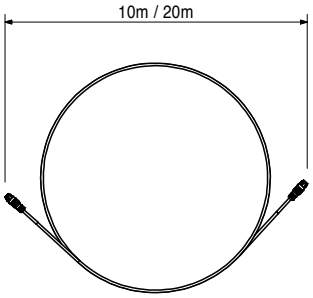
Art no.	Weight [kg]	
		Data Conn. Cables RCS MAX
135503	0.600	**Data Conn. Cable RCS MAX 10m**
135504	1.200	**Data Conn. Cable RCS MAX 20m**

For data connection between Hydraulic Pumps RCS MAX 2x210 bar.

Notes

Follow Assembly Instructions of the manufacturer!





Accessory (not included)

135505 Connector Data Cable RCS MAX

Art no.	Weight [kg]	
135505	0.100	**Connector Data Cable RCS MAX**

For connecting two Data Connection Cables RCS MAX.

Notes

Follow Assembly Instructions of the manufacturer!
Length 18 cm.



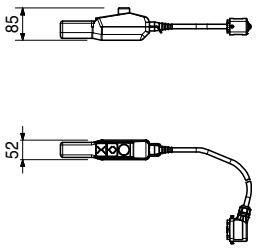
Art no.	Weight [kg]	
135506	2.500	**Remote Control RCS MAX**

Remote control for the simultaneous operation of a climbing unit.

Notes

Follow Assembly Instructions of the manufacturer!



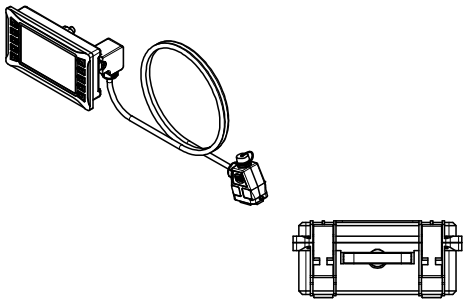


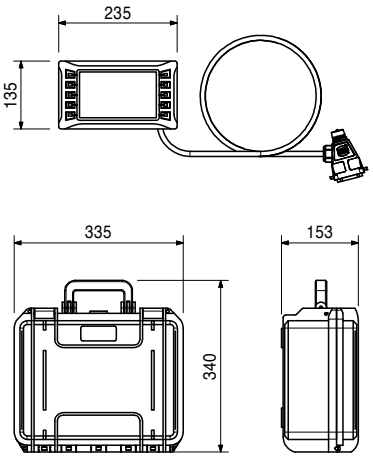
Art no.	Weight [kg]	
135507	3.360	**Display RCS MAX**

For displaying extended information and monitoring of interconnected Hydraulic Pumps RCS MAX 2x210 bar.

Notes

Follow Assembly Instructions of the manufacturer!
Cable length: 1.50 m.



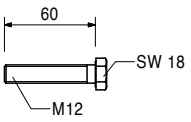


Included in delivery

136675 Case Display RCS MAX 1 pc

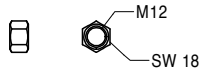
Art no.	Weight [kg]	
126001	0.060	**Screw ISO4017-M12x60-8.8-ga**





Art no.	Weight [kg]	
723805	0.017	**Nut ISO4034-M12-5**

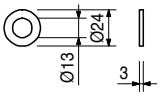




Art no.	Weight [kg]	
780702	0.006	**Washer ISO7089-12-200HV-ga**

Corresponds to old standard DIN 125 Form A



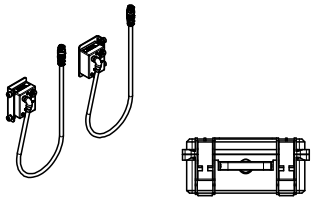


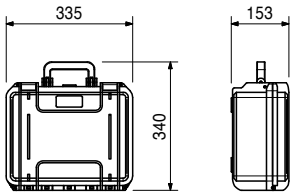
Art no.	Weight [kg]	
136531	2.330	**Data Conn. RCS MAX wireless**

For a wireless group connection between Hydraulic Pumps RCS MAX 2x210 bar.

Notes

Group IN and Group OUT modules are compatible paired.
Technical data see PERI Product Information.





Included in delivery

136673 Case Data Conn. RCS MAX 1 pc

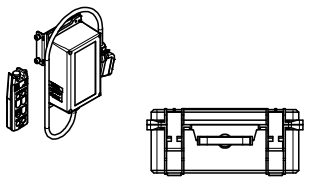
Art no.	Weight [kg]	
136530	5.080	**Remote Contr. RCS MAX wireless**

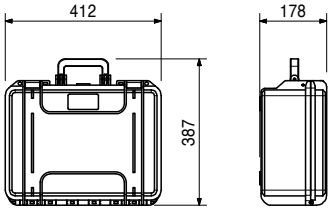
For a wireless operation of Hydraulic Pump RCS MAX 2x210 bar.

Notes

Follow Assembly Instructions of the manufacturer!

Scope of delivery:
1 pc. Remote Control RCS MAX wireless
1 pc. Receiver paired with Remote Control RCS MAX wireless
1 pc. Battery charger with base adapters
2 pc. Chargeable batteries
1 pc. Case Remote Control RCS MAX
2 pc. Magnetic keys
1 pc. Protective casing with harmess





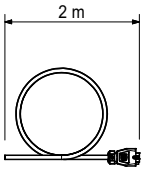
Art no.	Weight [kg]	
136532	0.400	**Power Cable RCS MAX 2m**

For making a country specific power cable.

Notes

Follow Assembly Instructions of the manufacturer!
To connect a country-specific connector to the cable. Only qualified electricians are permitted to work on and repair electrical components.



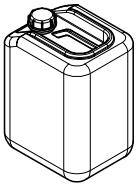


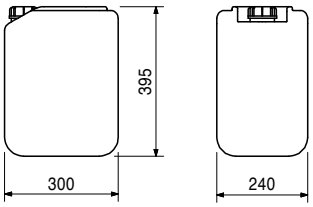
Art no.	Weight [kg]	
		Hydr.Oils ISO11158 in Canister
131270	17.900	**Hydr.Oil ISO11158 HM10 20l**
131274	18.300	**Hydr.Oil ISO11158 HVI22 20l**
137373	18.300	**Hydr.Oil ISO11158 HVI32 20l**
057376	18.300	**Hydr.Oil ISO11158 HVI46 20l**

High-quality synthetic hydraulic oils for PERI Hydraulic Pumps with different viscosity suitable for different temperature ranges.

Notes

Filter with filter pump before filling the aggregates.
Observe Safety Data Sheet and applicable National Safety Regulations regarding hydraulic oil, in particular for transport, storage and disposal! Observe the technical documentation for the hydraulic power unit! Product Data Sheet on request.



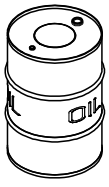


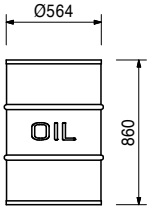
Art no.	Weight [kg]	
		Hydr.Oils ISO11158 in Drum
131273	200.000	**Hydr.Oil ISO11158 HM10 210l**
131275	200.000	**Hydr.Oil ISO11158 HVI22 210l**
137374	201.000	**Hydr.Oil ISO11158 HVI32 210l**
131277	201.000	**Hydr.Oil ISO11158 HVI46 210l**

High-quality synthetic hydraulic oils for PERI Hydraulic Pumps with different viscosity suitable for different temperature ranges.

Notes

Filter with filter pump before filling the aggregates.
Observe Safety Data Sheet and applicable National Safety Regulations regarding hydraulic oil, in particular for transport, storage and disposal! Observe the technical documentation for the hydraulic power unit! Product Data Sheet on request.





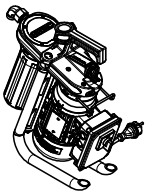
Art no.	Weight [kg]	
727105	1.000	**Long Term Fat LT 200 EP /25kg**

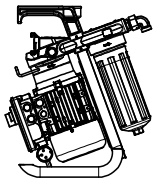
Art no.	Weight [kg]	
137281	14.000	**Hydr.Oil Filter Pump CE**

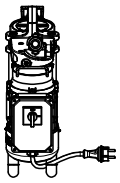
Filter pump for quick and clean transfer of hydraulic oil with simultaneous filtration.

Notes

Follow Instructions for Use!
Power connection 220 V / 50 Hz, plug CEE 7/7.







Accessory (not included)

137282 Hydr.Oil Filterelement 500
137283 Suction-/Pressure Hose 250

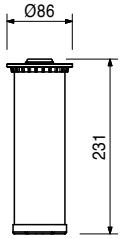
Art no.	Weight [kg]	
137282	1.000	**Hydr.Oil Filterelement 500**

Wear part of the Hydr.Oil Filter Pump CE.

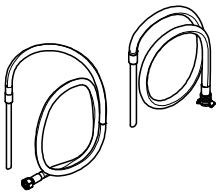
Notes

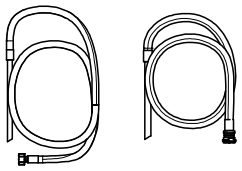
Follow Instruction for use!
Observe the maintenance instructions in the technical documentation for the oil filter pump!
Observe disposal instructions!





Art no.	Weight [kg]	
137283	1.000	**Suction-/Pressure Hose 250**

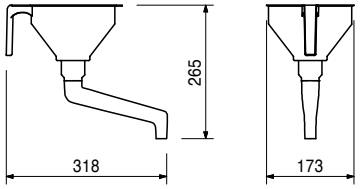




Art no.	Weight [kg]	
130685	0.225	**Universal Funnel**

For easy filling of hydraulic pumps with oil.

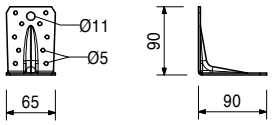




Art no.	Weight [kg]	
123478	0.255	**Angle Connector 90x90x65mm**

For diverse timber connections.





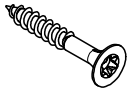
Accessory (not included)

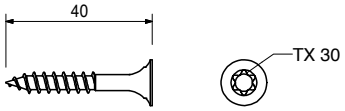
129711 Wood Screw 6x20 HRK-TX30 HSX

024550 Wood Screw 8x20 SK-TX30 HGK

Art no.	Weight [kg]		L [mm]
024540	0.005	**Wood Screw 6x40 SK-TX30 HPI**	40

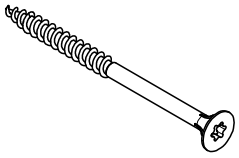
For Torx Bit Points TX30. Self-drilling.

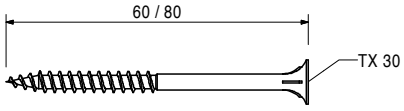




Art no.	Weight [kg]		L [mm]
024690	0.008	**Wood Screw 6x80 SK-TX30 HPI**	80

For Torx Bit Points TX30. Self-drilling.





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PERI SE
Formwork Scaffolding Engineering
Rudolf-Diesel-Strasse 19
89264 Weissenhorn
Germany
Tel. +49 (0)7309.950-0
Fax +49 (0)7309.951-0
info@peri.com
www.peri.com