

CARGO FLOOR®

Assembly instructions

CF500 SLC 15/156,8
[CF500 SLC 15/6.2"]
XHDI / HD

INTRODUCTION

The assembly instructions outlined in this book will enable you to assemble the Cargo Floor system you have purchased correctly. Every effort has been made, by means of diagrams and text, to ensure a clear and simple installation. To ensure the durability and reliability of this revolutionary loading and unloading system, it is important that you follow the assembly instructions as outlined in this book completely, and use quality materials in accordance with the specifications. Please note that the guarantee is only valid if the Cargo Floor system has been assembled in accordance with these assembly instructions. The latest available version can always be found on our internet site: www.cargofloor.com

The measurements given in this instruction start with the metric system after which between brackets [0] the imperial measurement is mentioned.

(ADDITIONAL) INSTRUCTIONS

The following (additional) instructions are available next to these instructions:

- Assembly CF100 SLL system
- Assembly CF500 SLC Power Speed system
- Assembly CF500 SLC Leak Resist Centre drive
- Assembly CF3 LP-2 15-160
- Assembly CF800 system
- Assembly Semi Leak Proof (SLP) system
- Assembly steel C-vloer

The latest available version can always be found in the downloads section on our internet site:

www.cargofloor.com

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ATTENTION: CHOOSE THE SYSTEM TYPE THAT YOU ARE BUILDING IN!

Subject	Drawing
System CF500 SLC H80-15-156,8	S1-156,8
System CF500 SLC H100-15-156,8	S2-156,8
System CF500 SLC H120-15-156,8	S3-156,8
System CF500 SLC H140-15-156,8	S4-156,8
Hydraulic drawing CF500 SLC A	H1-A
Hydraulic drawing CF500 SLC B	H1-B
Hydraulic drawing CF500 SLC E	H1-E
Proposal drawing hydraulic connections CF500 SLCH2
Electric drawing E	E1
Electric drawing B	E2
Control valve	BV1
Control valve "B"	BV2
Overview - XHDI / HD	V140207-CF-200

IDENTIFICATION PLATE

General extended identification plate

Next to the system number the Cargo Floor order number will be mentioned and a field with 9 digits has been added in which we can, if required, put your identification or order number. Numbers are automatically provided with a barcode; this makes it possible for you to scan the required data.

Short small identification plate

An extra identification plate has been mounted near the standard supplied pressure filter so the system number can be read simply and swiftly at the outside of the trailer.

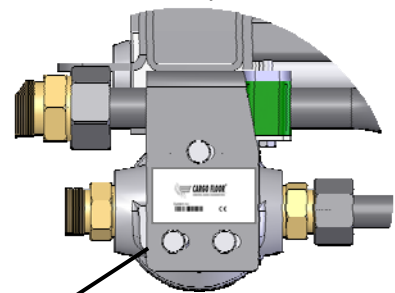
Paint and dirt protection

The identification plates are specially fitted with a double layer of transparent protective foil. The first protective foil has a lip with remains visible when the Cargo Floor system has gotten painted or exceptional dirty. This protective foil can simply be removed so the data is readable again and the second protective foil remains intact so the data remains protected.

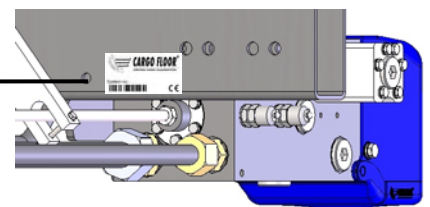
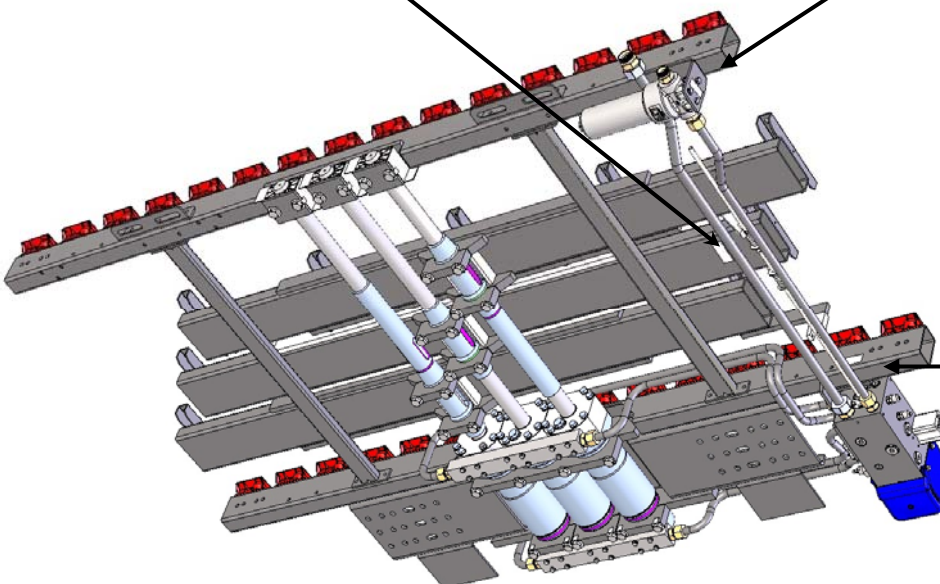
 CARGO FLOOR® HORIZONTAL LOADING-/UNLOADINGSYSTEM		Cargo Floor B.V. Byte 14, NL-7741 MK Coevorden www.cargofloor.com	
Type	CF500 SL-C	Max.WP.	225bar [3,300 psi]
Product	MOVING FLOOR®	Max.CAP.	40t [88,000lbs]
System no.			
CF SO.			
Client PO.			
Manufacturers of the CARGO FLOOR® selfloader and self-unloader World wide PATENTS pending!			







 CARGO FLOOR® HORIZONTAL LOADING-/UNLOADINGSYSTEM
System no.: 

STICKERS

This WARNING STICKER/DECAL has been supplied with the drive unit in two fold. It should be attached near the control box and on the rear door in such a way that it is easy to read.



Stickers/decals on the trailer:

A

Eng Important tips before the Cargo Floor system can be put into operation:
- Always consult the operation manual first.
- Always determine and check the direction of transport.
- People must always maintain a distance of at least 10 metres from a working Cargo Floor system.
- After use, always switch the Cargo Floor system back to the non-activated neutral (0) position.
- By maintenance work, switch off everything and disconnect the Hydraulics.

D Wichtige Anweisung vor der Inbetriebnahme des Cargo Floor Systems:
- Immer erst die Bedienungsanleitung lesen.
- Zuerst immer die gewünschte Transportrichtung bestimmen und kontrollieren.
- Vom aktivierten Cargo Floor System müssen Personen mindestens 10 Meter Abstand halten.
- Nach dem Einsatz des Cargo Floor Systems in die nicht aktivierte, neutrale Null-Stellungen (0) zurücksetzen.
- Bei Wartungsarbeiten, alles ausschalten und die Hydraulik abkoppeln.

NL Belangrijke aanwijzing voordat het Cargo Floor-systeem in gebruik mag worden genomen:
- altijd eerst de bedieningshandleiding raadplegen.
- altijd eerst de gewenste transport richting bepalen en controleren.
- Personen moeten altijd tenminste 10 meter afstand houden van een werkend Cargo Floor systeem.
- Na gebruik altijd het Cargo Floor systeem in de niet geactiveerde neutrale (0) positie terugzetten.
- Bij onderhoudswerkzaamheden, alles uitschakelen en de hydrauliek loskoppelen.

KEEP CLEAR AT ALL TIMES !!

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Fr Indications importantes avant de pouvoir utiliser le système Cargo Floor:
- Commencez toujours par consulter le manuel d'utilisation.
- Commencez toujours par déterminer et contrôler la direction de transport souhaitée.
- Tenez-vous toujours à au moins 10 mètres de distance d'un système Cargo Floor en fonctionnement.
- Après utilisation, remettez toujours le système Cargo Floor en position neutre (0) non activée.
- Pour tous travaux de maintenance, tout déconnecter et débrancher l'hydraulique.

Esp Instrucciones importantes a seguir antes de poner en funcionamiento el sistema Cargo Floor:
- Siempre consulte primero el manual de instrucciones.
- Siempre determine y controle primero el sentido de transporte deseado.
- Cuidé de que las personas siempre se mantengan a por lo menos 10 metros de distancia de un sistema Cargo Floor en movimiento.
- Una vez concluida la operación, siempre retorne el sistema Cargo Floor a las posiciones neutrales no activadas (0).
- Por trabajos de mantenimiento, apagar todo y desconectar los hidráulicos.

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B

White/transparent



Black/ transparent



or

C

Stickers/decals on the control box, only with B- and E-control:

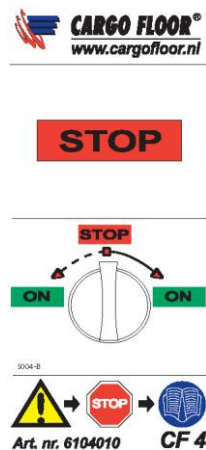


Stickers/decals On the Switches

Switch B-control



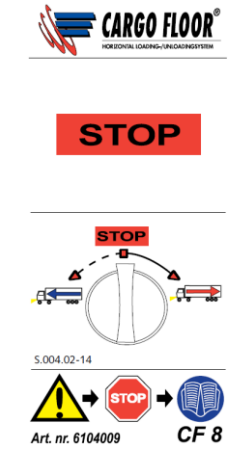
Switch B-control



Switch E-control

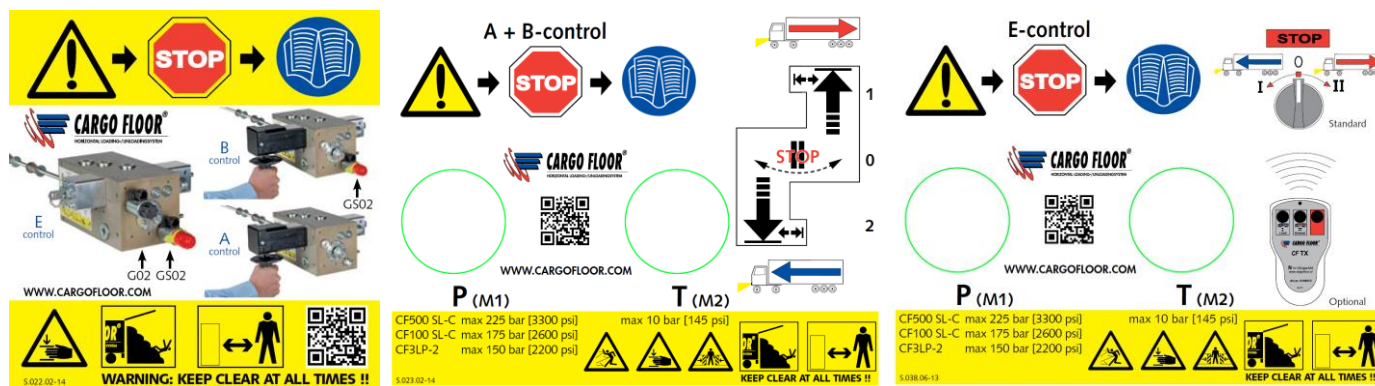


Switch E-control



D

Stickers/decals On the side of the trailer, near the drive unit



Only A + B-control



IMPORTANT RECOMMENDATIONS AND GUIDELINES FOR THE COMMISSIONING

Before putting the Cargo Floor loading and unloading system into operation, follow the recommendations provided below and check the specified checkpoints to avoid damage to the Cargo Floor system and the vehicle.

Please review the important instructions before operating the Cargo Floor system and loading cargo into the vehicle. Likewise, before loading cargo, check the operation of the various control switches/valves to familiarise yourself with how the system works. We strongly recommend that you perform these checks when picking up the vehicle from the dealer so that your skilled supplier can answer your questions and provide you with any necessary advice or guidance you may require.

Important:

- Always check that the selected loading or unloading direction is actually activated and occurring!!
- If the system fails to start, turn off the Cargo Floor system and the hydraulic pump and follow the recommendations and guidelines provided below. Do not repeatedly try to start the system as this may result in damage to your Cargo Floor system and/or vehicle.
- After use, turn off the Cargo Floor system and hydraulic pump. Set switches to the "0" position and the lever in neutral.

In case of doubt or uncertainty about these recommendations and guidelines, always contact your dealer or an official workshop.

The Cargo Floor system comes standard with an operating manual, but if this has not been supplied, please contact your dealer or download it from the official Cargo Floor website: www.cargofloor.com

- A) Always open the vehicle's doors before turning on the hydraulic pump. Note! Build-up of pressure against the doors can open them with force. Also some of the cargo can fall out of the vehicle by itself after opening the doors, therefore KEEP CLEAR AT ALL TIMES, product could fall on top of you! Both could result in damages and/or injuries! It is always advisable to use the pneumatic door lock, if provided.
- B) 1. Check that the vehicle's (quick-detachable) couplings are properly connected to the P (Pressure line) and the T (tank/return line). Also check that the couplings are fully tightened or slid completely into each other.
IMPORTANT: the pressure and return line connectors may not be reversed or exchanged to prevent dirt or water from entering the lines when connecting them!
2. Before connecting, check that the non-return valves can open easily (check: the non-return valves should open easily when pressed with the finger, if not, potential pressure build-up in the hydraulic lines may be preventing the system from starting).
NOTE: Incorrectly connected or unopened hydraulic couplings will cause serious damage to the Cargo Floor system and the vehicle.
- C) The vehicle (pump) must be fitted with a pressure relief valve that is set at the maximum pressure according to the system, see the technical specs. If fitted, check that the dual-function lever (function: tipper/Cargo Floor) is in the Cargo Floor position. Pressure may not exceed the maximum adjusted and allowable operating pressure of the Cargo Floor system. An incorrectly adjusted pressure relief valve can cause damage to the Cargo Floor system and the vehicle.
- D) During operation, the (hand)brake of the vehicle must always be applied. You must, however, move the vehicle forward on time to unload it quickly in order to prevent unnecessary strain and wear to the floor and the vehicle.
- E) Use of a wireless remote control is permitted only if it is fully tested before the start of each loading or unloading operation. Always check if the function you have selected is actually activated and taking place. If, for example, you have accidentally pressed the load function when you actually meant to press the unload function, irreversible damage may occur to the Cargo Floor system and the vehicle.
- F) During operation of the Cargo Floor system, all existing STOP and control knobs/levers must be freely accessible.

- G) The pressure filter element needs to be replaced at least once a year. If the couplings between the vehicle and the Cargo Floor system are regularly removed, it is advisable to check the pressure filter for dirt build-up and replace the pressure filter element more often, if necessary. If provided, also check the return filter (not supplied with the Cargo Floor). Failure to replace a filter element on time may cause damage to or malfunctions in the Cargo Floor system and the vehicle.
- H) Moving parts must be shielded. Always maintain at least 10 meter [30'] distance from the Cargo Floor system when it is in operation.
- I) In the event of malfunctions/maintenance work, you may approach the Cargo Floor system only if all equipment, including the hydraulic pump, have been shut off, and the Cargo Floor system and the electro-hydraulic aggregate have been disconnected from the power supply and pump.
- J) Regularly check and, if necessary, tighten any loose bolts that secure the aluminium floor profiles to the Cargo Floor system. All such checks can simply be performed inside the vehicle itself by qualified personnel. The Cargo Floor system must, however, be turned on in unloaded condition and the person performing the check must place his finger half on the floor profile and half on the bolt. There should be no appreciable movement/space between the floor profile and bolt. Failure to check these bolts may lead to damage to the Cargo Floor system. During this check, a second person must also be present to switch off the Cargo Floor system.
- K) Check that the minimum required amount of oil is present 150 liter [40 US gallon]. Too little oil in the hydraulic tank will cause damage to both the pump and the Cargo Floor system.
- L) Do not allow the number of strokes to exceed the maximum allowable 16 power strokes per minute. Only a CF500 SLC Power Speed Cargo Floor system may deliver up to 23 beats per minute. A higher number of power strokes can cause damage to the Cargo Floor system and the vehicle.
- M) Hydraulic lines, couplings and hoses with very small diameters will cause damage.
- N) If the Cargo Floor system fails to start or operates incorrectly, the Cargo Floor system and the hydraulic pump must be shut down immediately. Subsequently, check all the checkpoints before switching the pump and the Cargo Floor system back on. To prevent the oil from overheating, regularly check the oil temperature by CAREFULLY and CAUTIOUSLY touching the line and or oil tank. If either is too hot to the touch, stop touching them right away. **WARNING: TOUCHING OVERHEATED OIL AND COMPONENTS CAN CAUSE BURNS!**
- O) The cause of failure or malfunctioning of the Cargo Floor system may also be due to other hydraulic components that may or may not be connected to the same hydraulic circuit of the Cargo Floor system.
- P) Jamming of the floor profiles caused by the transport of abnormal loads and or the freezing of the floor or of the product to the floor may result in damage to the Cargo Floor system and the vehicle. Recommendation: in the event of freezing, stop the system and try to find a hall (heated area) to allow the product to thaw.
- Q) Because the electrical power supply of the Cargo Floor system is often connected to the lighting circuit of the vehicle, it is advisable to turn on the lighting throughout the operation of the system.
- R) Maintenance and repairs to the Cargo Floor system may be only performed by qualified personnel. Use only original Cargo Floor components to ensure maximum reliability and long service life.
- S) Maximum cargo weight is subject to the limits set by law and applicable regulations. Even if the system can transport heavier loads, the law determines the maximum limit. Excessively heavy cargo can cause damage to the Cargo Floor system and the vehicle.
- T) Check that the correct type and quality of hydraulic oil is used. The use of incorrect oil type may cause damage to the Cargo Floor system and the pump.
- U) Check the vehicle for correct voltage. Make sure there are no open electrical connections. A faulty electrical system can cause damage to the Cargo Floor system and the vehicle.
- V) Check that the bulkhead, if present, is functioning smoothly and properly. A properly functioning bulkhead ensures that the product is unloaded in a clean and quick fashion. A malfunctioning bulkhead may extend the unloading time and cause damage to the vehicle.
- W) Use of the Cargo Floor system by unqualified personnel can cause damage to the Cargo Floor system and the vehicle.
- X) Excessively high oil temperatures will cause damage to the Cargo Floor system and other hydraulic components, such as the pump.
- Y) It is at all times advisable to stop the Cargo Floor system when all the piston rods are retracted. This is usually the case when the floor profiles are positioned towards the unloading end (vehicle doors). Unretracted piston rods may cause damage to the Cargo Floor system.

- Z) To prevent damage to the floor profiles, exercise caution and limit the dump height as much as possible. The transport of unauthorised goods, such as aggressive, corrosive, hot, hard, sharp and viscous materials may cause damage to the Cargo Floor system and the vehicle. Avoid loading and unloading sharp objects. Loads that are softer than the hardness of the floor profiles will extend the service life of your system; if in doubt, use a protective cloth or consult your dealer.
- AA) Forklift trafficable. In principle, the floors are completely trafficable and can be driven over by forklifts, but always consult your dealer for advice on the maximum loads allowed on your vehicle. Overloading will cause damage to the Cargo Floor system and the vehicle.
- BB) Always return emergency control(s) to their original non-activated position after use.
- CC) During the operation of the system, test the temperature of the oil by touching the side of the tank. If the oil is so hot that you cannot continue to touch the tank, switch off the pump to allow the oil to cool off and determine what is causing the overheating. Stop loading or unloading if the oil is too hot, as this will irreversibly cause damage to the Cargo Floor system and the other hydraulic components.
WARNING: TOUCHING OVERHEATED OIL AND COMPONENTS CAN CAUSE BURNS AND INJURIES!
- DD) During loading and unloading operations, the load should be spread to give an even weight distribution over the floor area, otherwise the load may stall. Tip: when transporting pallets, place softwood boards of 300 x 18 x 2350 mm. [12" x 0.75" x 92.5"] to distribute the pressure more evenly.
- EE) The constant pressing of the load against the head board or the doors can lead to extra wear of the complete system. Also the construction can be damaged. Please consult you supplier about the optimizing possibilities or in order to prevent problems occurring.
- FF) The user/operator/driver that is operating the Cargo Floor system is compelled to remain a safe distance from the Cargo Floor system at all times, from the time of switching on the hydraulic pump until turning it off. He should ensure that no dangerous situations can occur. When the process malfunctions or if other people are present he should shut down the Cargo Floor system, or hydraulic pump, immediately.
- GG) No unauthorized alterations/modifications/changes/adjustments may be made to any part of the Cargo Floor drive unit and system.

WARRANTY

Warranty is subject to prior approval by Cargo Floor B.V.! To request warranty coverage, visit www.cargofloor.com to fill out and submit the warranty application form provided there; do not forget to include your Cargo Floor system number on the form.

EMERGENCY STOP

In the event of an EMERGENCY, operation of the Cargo Floor system can be halted as follows:

- ◆ By pressing the red stop button on one of the control switches;
- ◆ By turning all switches to position "0";
- ◆ By putting the handle of the control valve in the middle "0" position (only B and A control);
- ◆ Turning off the PTO pump/engine;
- ◆ Turning off the main switch of the power supply;
- ◆ Turning off the motor of the electro-hydraulic aggregate;

 **If the indications in this manual, as well as those stated in the user manual, are not followed this could result in damages and/or injuries.**

 **If your customer had any specific wishes we advise you to contact Cargo Floor B.V. This especially when what is wished for differs from the so-called normal use.**

The warningsticker/decals, as pictured below, is supplied in twofold with the drive unit. These need to be stuck near the control box and the rear door in such a way that these can simply be read.



CAUTION CAUTION

Eng Important tips before the Cargo Floor system can be put into operation:

- Always consult the operation manual first.
- Always determine and check the direction of transport.
- People must always maintain a distance of at least 10 metres from a working Cargo Floor system.
- After use, always switch the Cargo Floor system back to the non-activated neutral (0) position.
- By maintenance work, switch off everything and disconnect the Hydraulics.

D Wichtige Anweisung vor der Inbetriebnahme des Cargo Floor Systems:

- Immer erst die Bedienungsanleitung lesen.
- Zuerst immer die gewünschte Transportrichtung bestimmen und kontrollieren.
- Vom aktivierten Cargo Floor System müssen Personen mindestens 10 Meter Abstand halten.
- Nach dem Einsatz das Cargo Floor System in die nicht aktivierten, neutralen Null-Stellungen (0) zurücksetzen.
- Bei Wartungsarbeiten, alles ausschalten und die Hydraulik abkuppeln

NL Belangrijke aanwijzing voordat het Cargo Floor-systeem in gebruik mag worden genomen:

- altijd eerst de bedieningshandleiding raadplegen.
- altijd eerst de gewenste transport richting bepalen en controleren.
- Personen moeten altijd tenminste 10 meter afstand houden van een werkend Cargo Floor systeem.
- Na gebruik altijd het Cargo Floor systeem in de niet geactiveerde neutrale (0) posities terugzetten
- Bij onderhoudswerkzaamheden; alles uitschakelen en de hydrauliek loskoppelen

KEEP CLEAR AT ALL TIMES !!



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5.0316.02-14

HOISTING INSTRUCTIONS

The Cargo floor system is supplied to you on durable pallets, see figure 1A, or in the specially designed transport racks (optional, figure 1B).

FIG. 1A

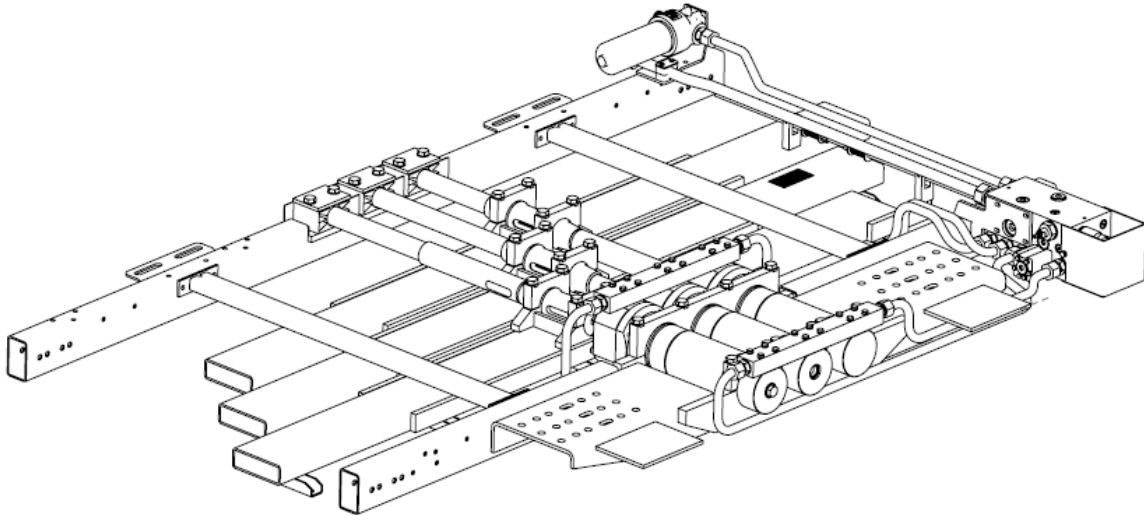
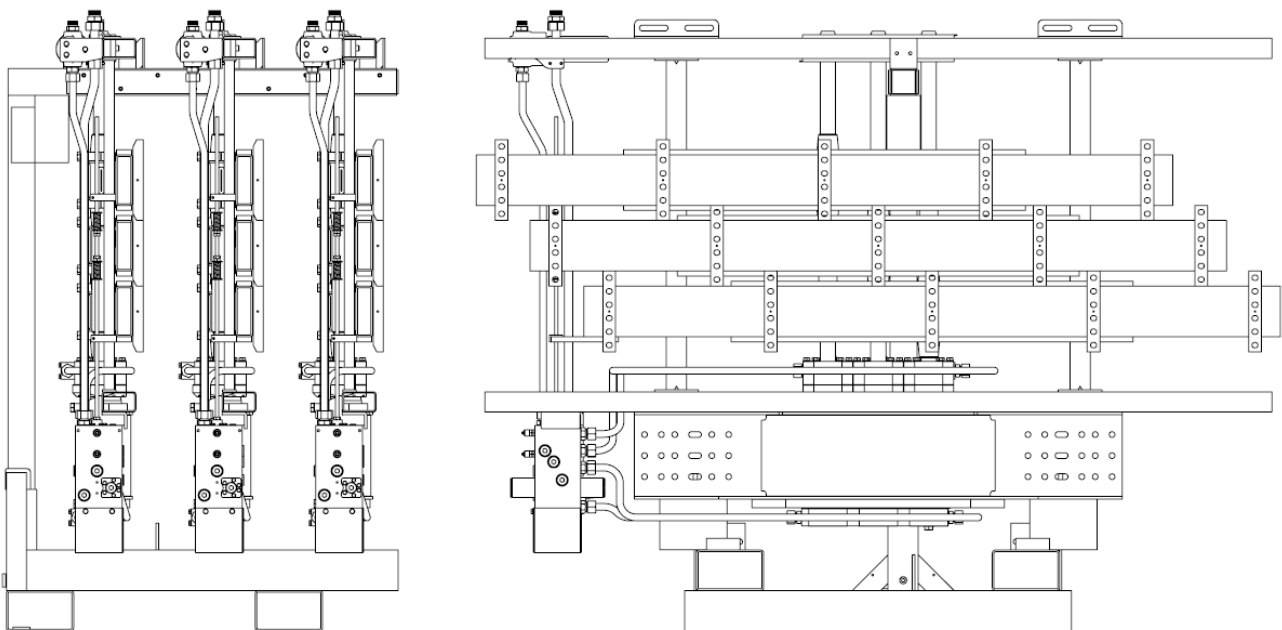


FIG. 1B



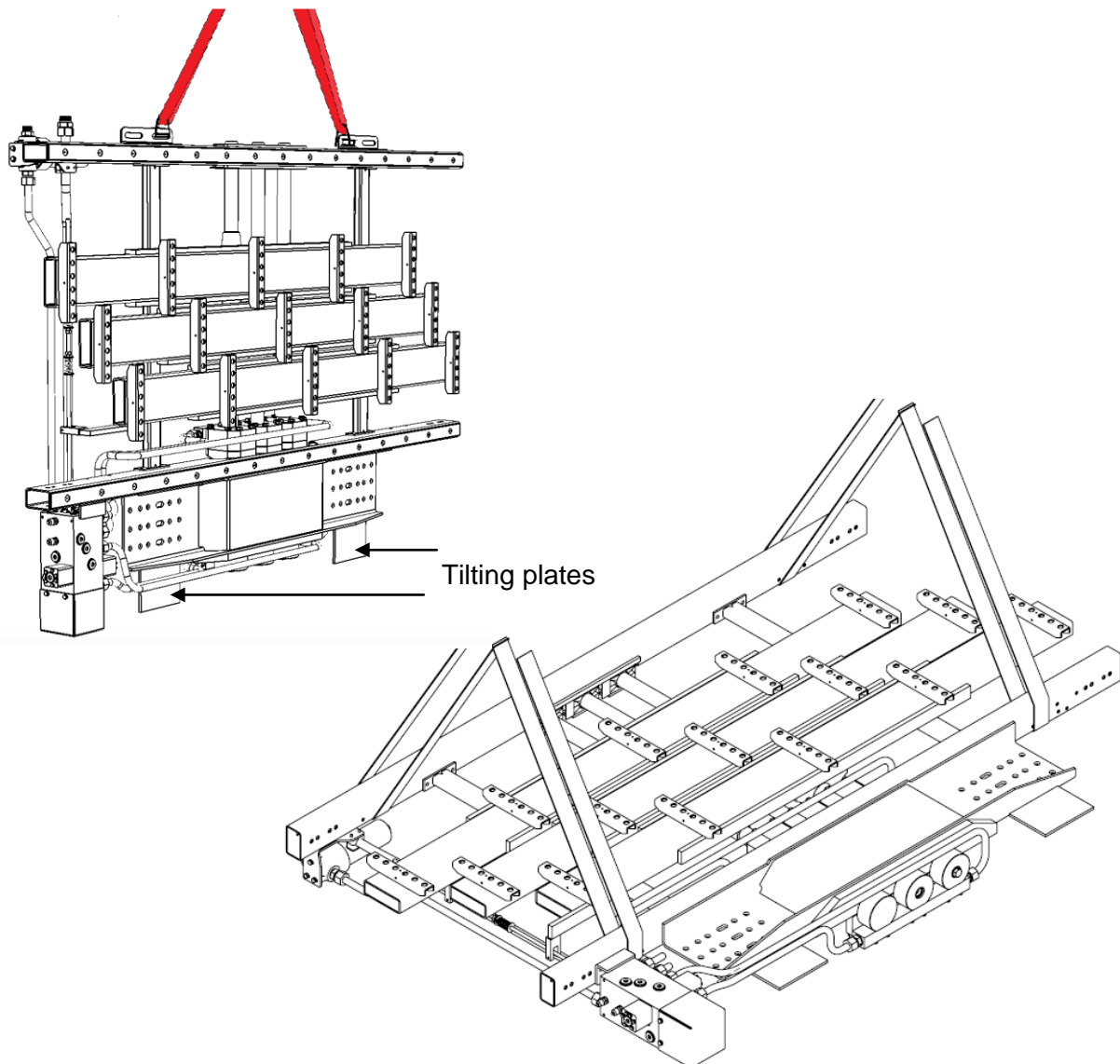
IMPORTANT

It is not permitted to lift the Cargo Floor system by the cylinders, valves or pipes. You must use the hoisting points when lifting the Cargo Floor system (as shown in figure 2). You need to pay particular attention that you use the right set of hoisting tools during lifting so that the cam guide and conduits do not get damaged. The tilting plates mounted at the rear bridge are designed in such a way that they prevent damages occurring to the cylinder bottoms, conduits and valve when tilting the system onto blocks or directly onto the chassis.

The Cargo Floor system can be mounted directly on the chassis or frame. Great care must be taken while placing the Cargo Floor system to ensure that the system cannot slide away and cause danger and that there is absolutely no damage caused to the system.

 **Warning: Do not lift by the cylinders!**

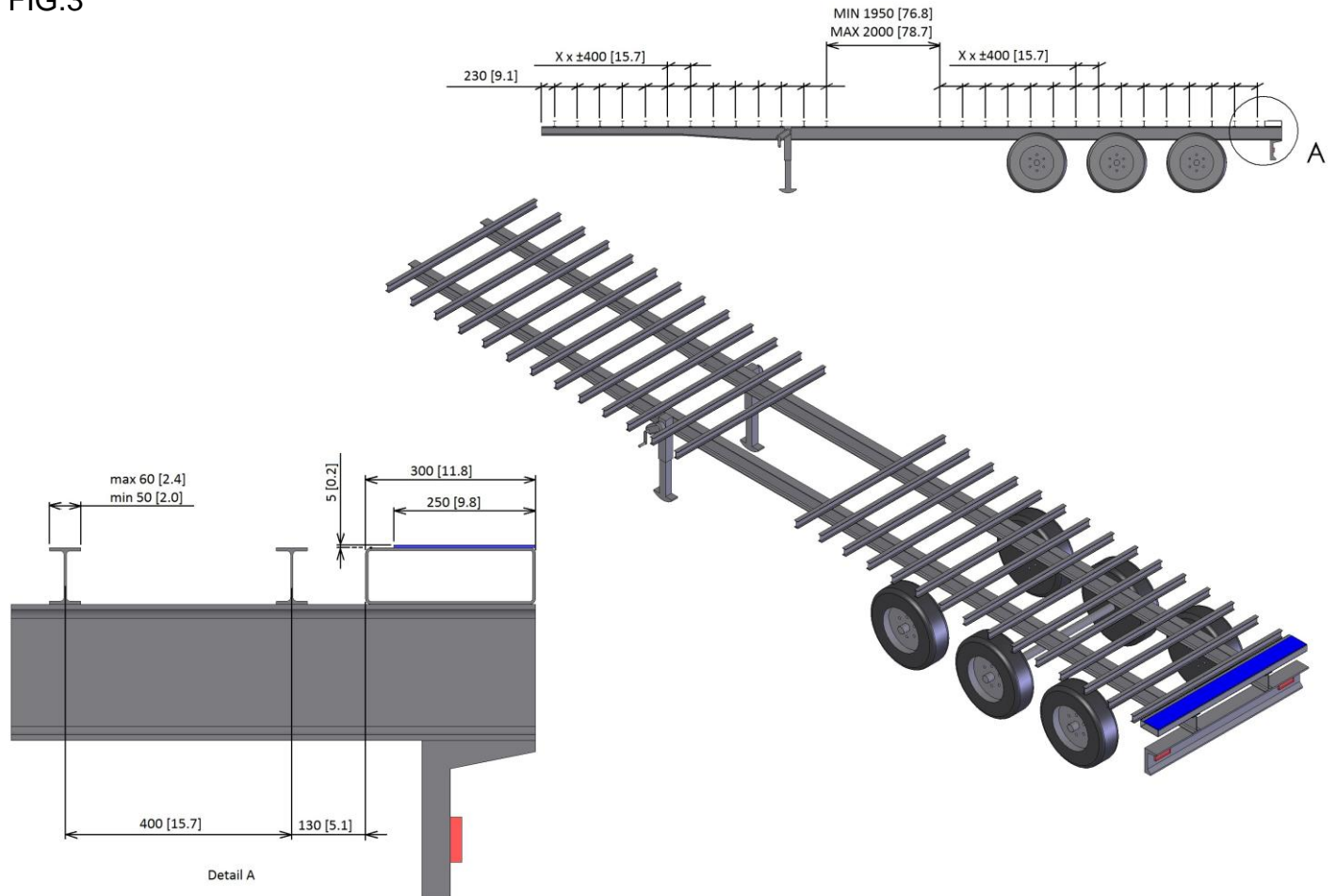
FIG. 2



THE CHASSIS

It is very important to ensure that, during the installation of the Cargo Floor system, the crossbeams are flat on the chassis. There must be no difference in height between the crossbeams, as this would hinder the installation of the system and adversely affect the operation and the lifetime of the Cargo Floor system.

FIG.3



The top flange of the crossbeam may be a maximum of 60 mm. [2.35"] wide and with a stabbed crossbeam the top flange must protrude at least 7 mm. [0.3"] above the chassis beam, if this is the case use the Cargo Twister WIDE 40/25 (parts no. [4107031](#)).

If the flange of the crossbeam is larger than 60 mm [2.35"] but smaller than 120 mm. [4.7"] then the SPECIAL WIDE Bearing 40/25 (parts no. [4107034](#)) can be used.

We refer you to figure 11 for the positions of the crossbeams for the various types of Cargo Floor systems. Make sure that there is space free in the middle of the chassis for the Cargo Floor system.

⚠ Make sure that you choose the correct system type*!

CF500 SLC **H 80** Page S1-156,8 [6.2"] **H100** Page S2-156,8 [6.2"]

H120 Page S3-156,8 [6.2"] **H140** Page S4-156,8 [6.2"]

A 300 mm. [12"] wide plate must be made and mounted on the back of the chassis at the same height as the crossbeam. A plastic wear strip of 2500x250x5 mm. [98"x10"x 0.2"] (part number [4101007](#)) must be mounted on this plate. Pay attention to adjusting the height when mounting a ticker or thinner (than the standard 5 mm.) wear strip, the strip should always connect with the underside of the aluminium floor profiles.

MOUNTING THE PLASTIC BEARING STRIP AT THE BACK SIDE

In order to achieve an optimal sealing and prevent wear at the underside of the aluminium floor profiles or the rear portal a plastic bearing strip (parts no. [4101007](#)) needs to be mounted at the unloading side. Alternatively a stainless steel wear strip (parts no. 4148012) can be mounted on the rear portal to protect it from wear.

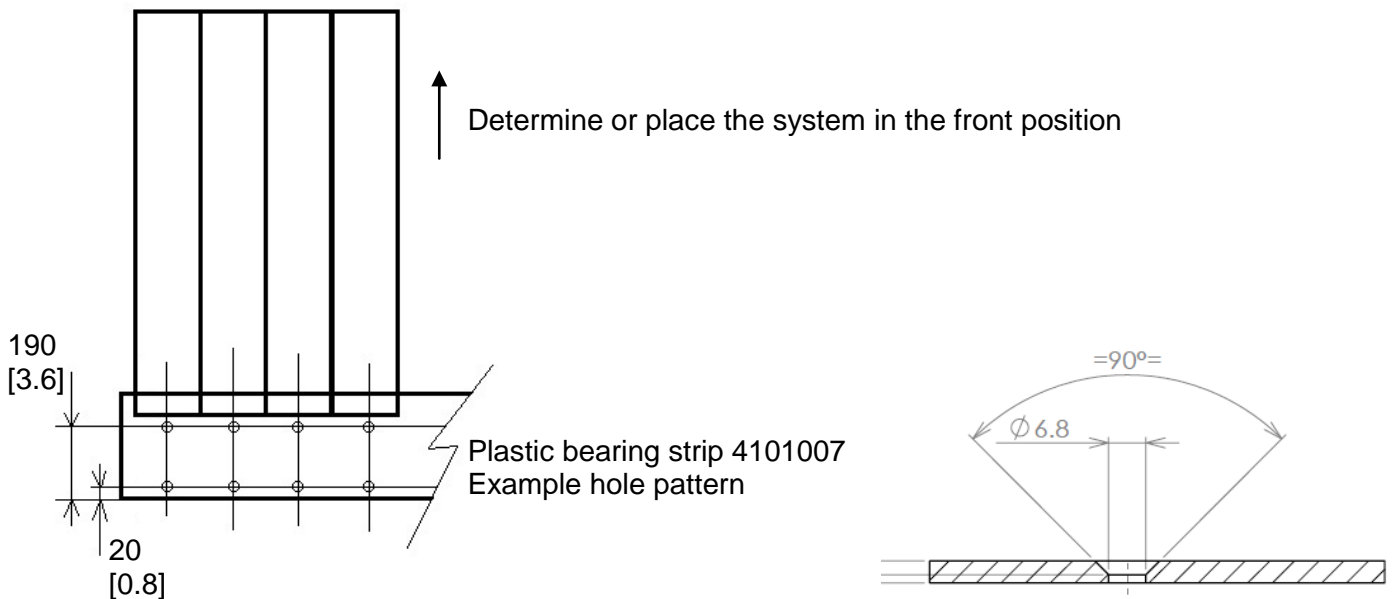
Mounting this strip is possible before mounting the floor profiles as well as after these have been mounted.

Attention: when determining the position of the plastic wear strip pay attention to if the door is in or outside the rear portal and mount the strip snug to the door.

The width of the wear strip should be at least 250 mm. [10"], length and thickness depends on your construction. In order to be able to simply swap this plastic bearing strip it needs to be mounted in the free part of the working stroke of the system. Determine, or have the system go to the front position, cylinders in the fully out position. Fasten the plastic bearing strip with 6.4x16.8 countersunk rivets with a range of 4 to 12 mm [0.2 – 0.5"] (parts no. [5017003](#)), so these do not come into contact with the moving floor. The stainless steel strip already has a hole pattern.

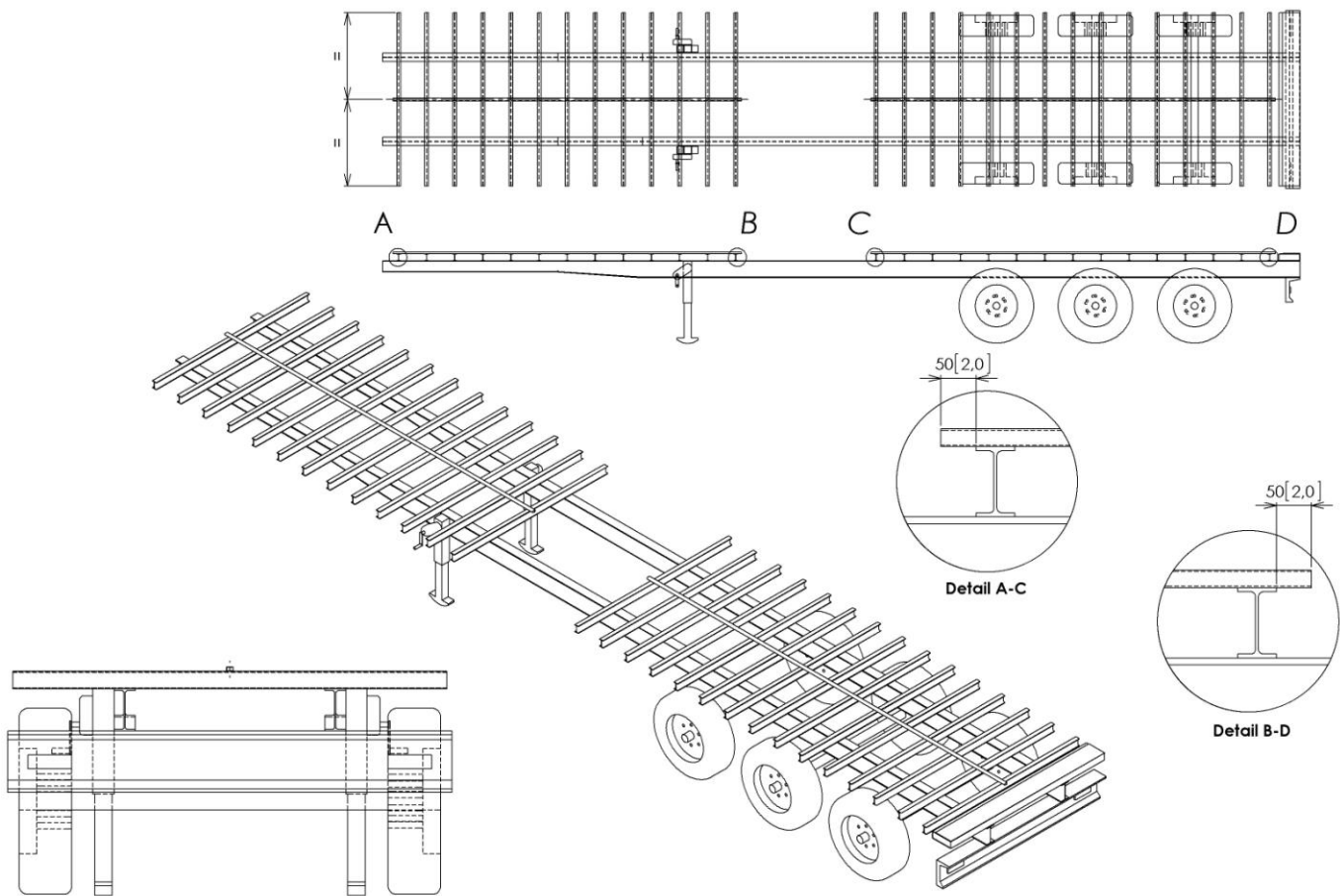
Put a small layer of sealant on the rear portal before mounting the plastic bearing strip, this prevents corrosion and dirt accumulating between the plastic bearing strip and rear portal.

After finishing the mounting of the plastic bearing strip, seal all the edges fully with sealant.



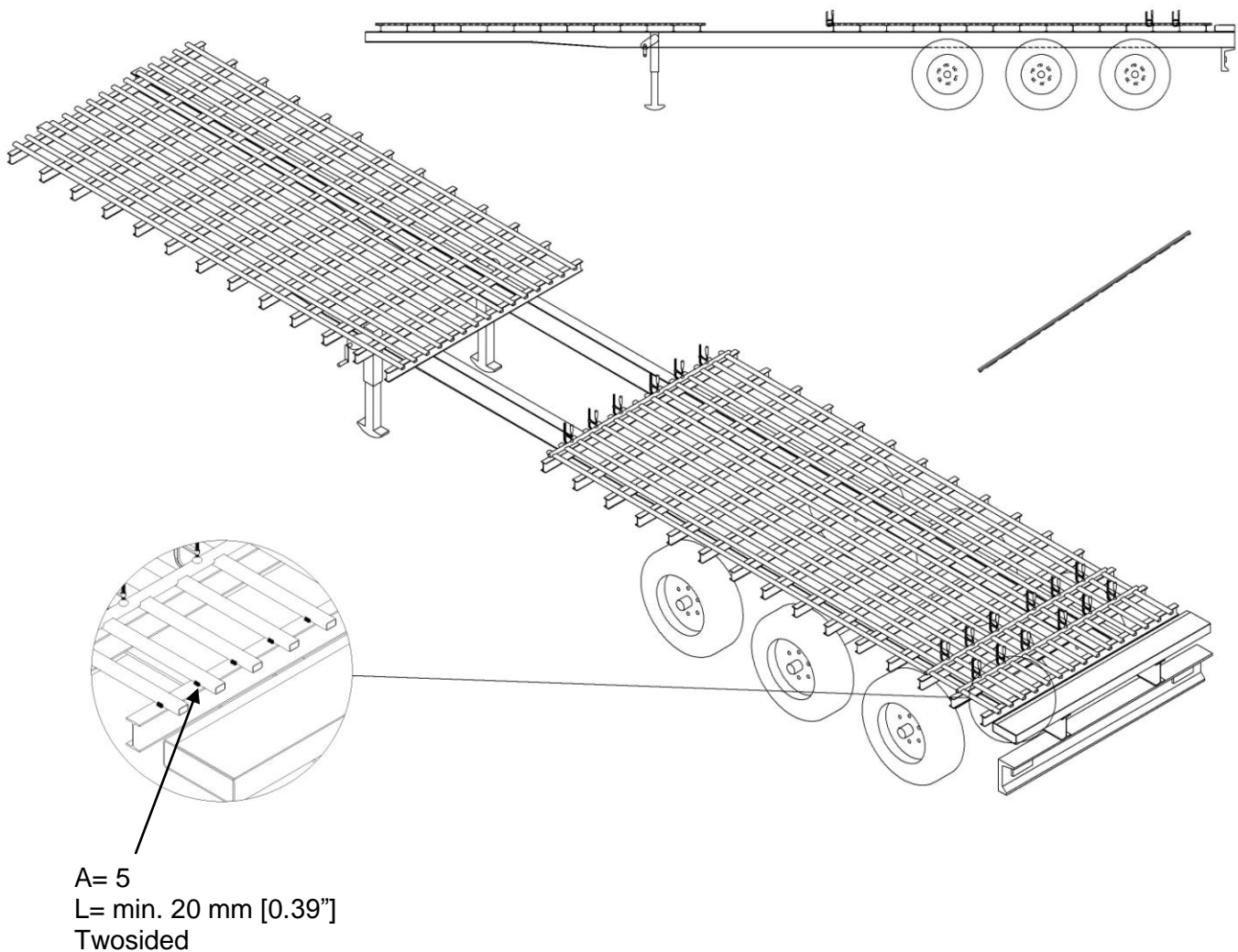
MOUNTING THE (40X25X2 [1.6"X1"X0.08"] RECTANGULAR TUBES FOR THE CARGO TWISTER WIDE 40/25

A rectangular tube needs to be installed, over the full length and along the exact centre line of each of the crossbeams (fig. 4 A). The square tubes need to be securely welded on both sides to each crossbeam with a weld of at least 20 mm. [0.39"] length and thickness of 5 mm. [0.20"] (as shown in figure 4 B). Pay attention to that the start and end positions of the tube protrude far enough (50 mm. [2"]) so the plastic bearing (Cargo Twister WIDE 40/25, parts no. [4107031](#)) can be mounted at that spot. (In fig. 4 A these are the details A-C and B-D.) This tube is used as a reference for the mounting of the other tubes with the help of the three welding jigs that have been supplied.

FIG. 4 A


After this, all other tubes need to be mounted in exactly the same manner as the middle tube. Use the welding jigs (3 pieces, parts no. 9112008 welding jig 15/156,8 mm [6.2"]) for the right positioning of these tubes. All rectangular should be - on one side and in the same direction - pushed into the welding jig. The jig needs to be fastened securely to the crossmember to no height differences can occur between the rectangular tubes. See fig. 4 B for positioning and use of the welding jigs.

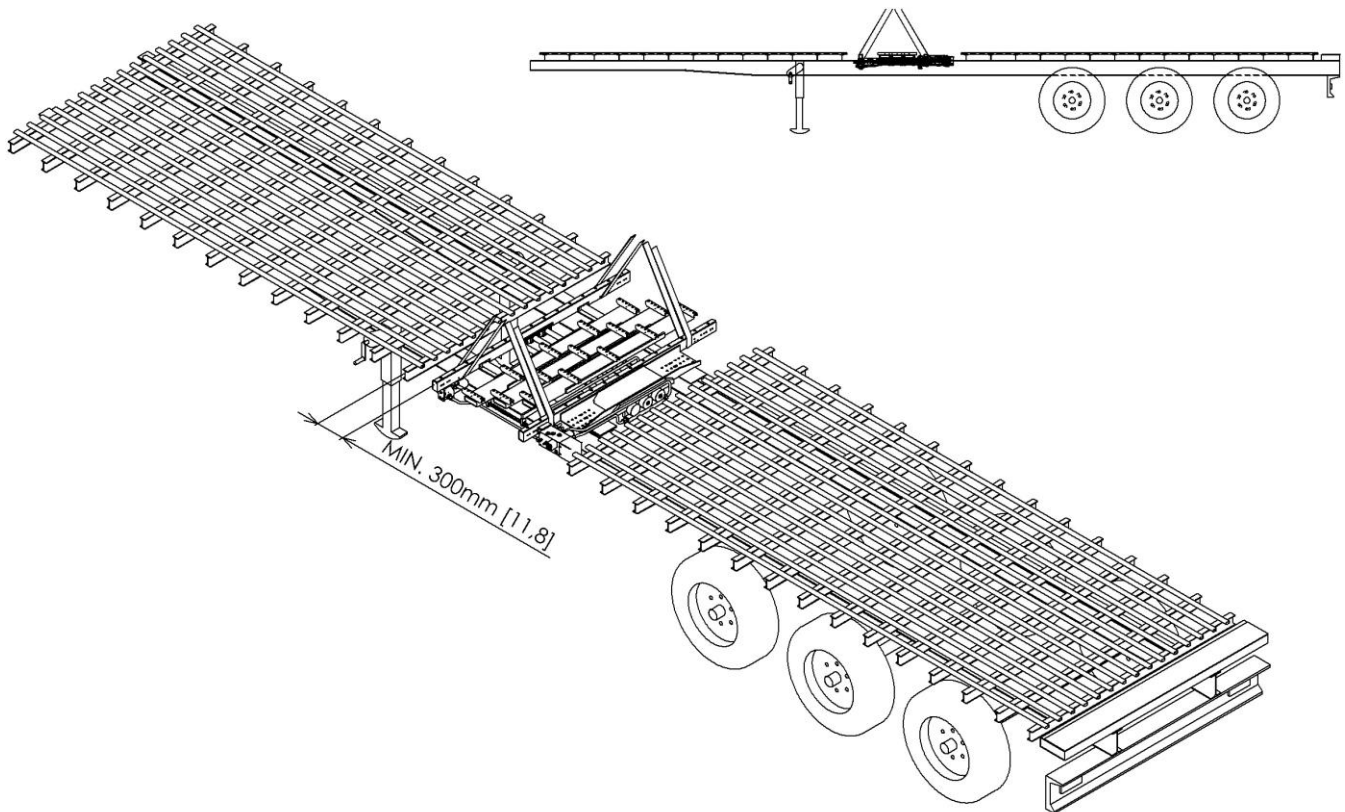
FIG. 4 B



POSITIONING THE SYSTEM

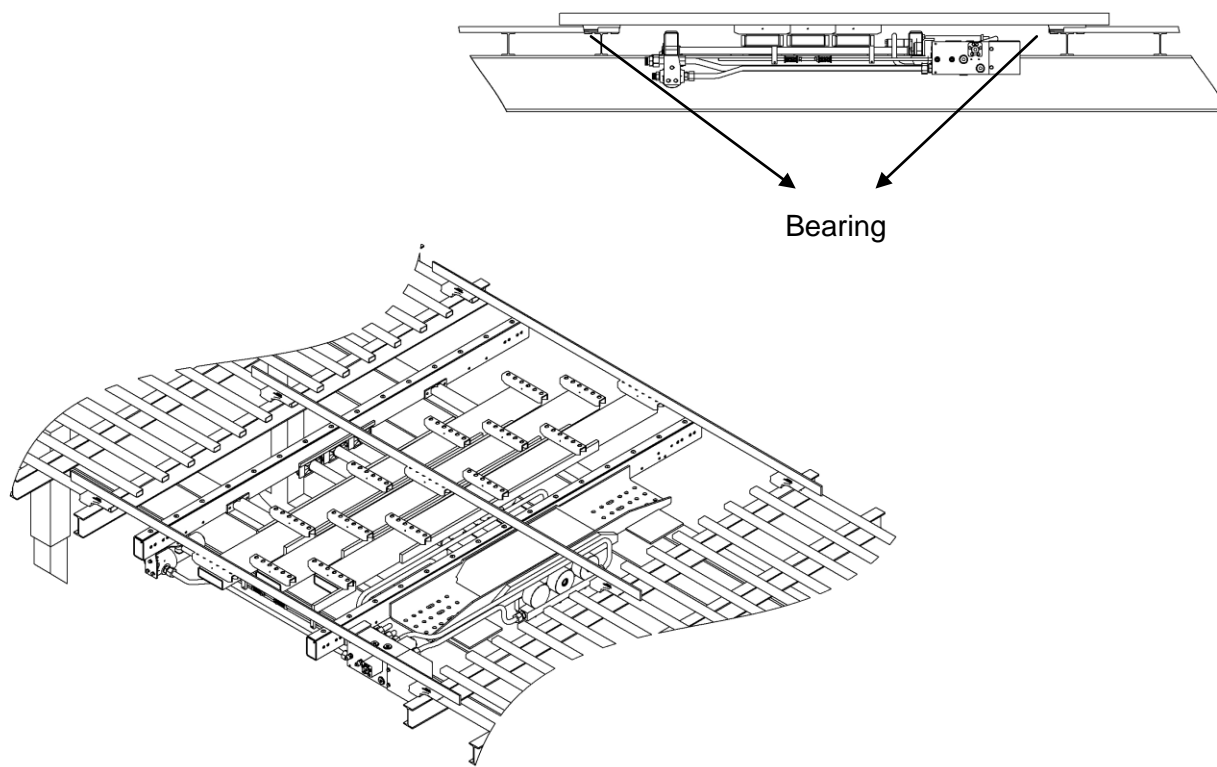
The hoisting procedures, as described on page 9 and 10, need to be studied before placing the Cargo Floor system. The Cargo Floor system can now be laid in the appropriate opening on the chassis (see figure 5), noting that the piston rods must always point in the head board direction.

FIG. 5



HEIGHT ADJUSTMENT AND ALIGNMENT OF THE CARGO FLOOR SYSTEM

FIG. 6

**Height adjustment**

The Cargo Floor system needs to be at the same height as the plastic bearings that are mounted on the crossbeams. The top of the U- profile of the moving crossmember (U-fasteners for the floor profiles, see figure 6) is the reference. Any extra spaces that have been created between the chassis and the underside of the Cargo Floor system should be filled.

Alignment

It is extremely important that the system is exactly lined up with the plastic bearing. The piston rod of the middle cylinder is used as reference for this. The centre line of the moving crossmember finger (U-fastener for the floor profiles) must be exactly in line with the centre line of the plastic bearing mounted on the crossbeams.

It is advisable to clamp the Cargo Floor system securely once it is correctly positioned.

SECURING THE SYSTEM

After the Cargo Floor system has been correctly positioned it can be secured to the chassis by welding or by bolting.

Bolting (see fig. 7 and 8)

The holes in the chassis should correspond with the mounting holes in the rear bridge and the front tube of the Cargo Floor system. 6 nuts per side need to be used on the rear bridge (see figure 7) and 1 nut per side in the so-called front bridge. This results in a total of 14 bolt connections. Each nut needs to be secured with a spacer and double nut (1x nut and 1x self-locking nut). (See figure 7.)

All bolts must conform to the following specification:

14 pieces M16x80 ELVZ (DIN931-10.9) [5/8"x3.25"]. Quality 10.9. [grade 8].

14 pieces nut M16 [5/8"]

14 pieces lock/nut M16 [5/8"]

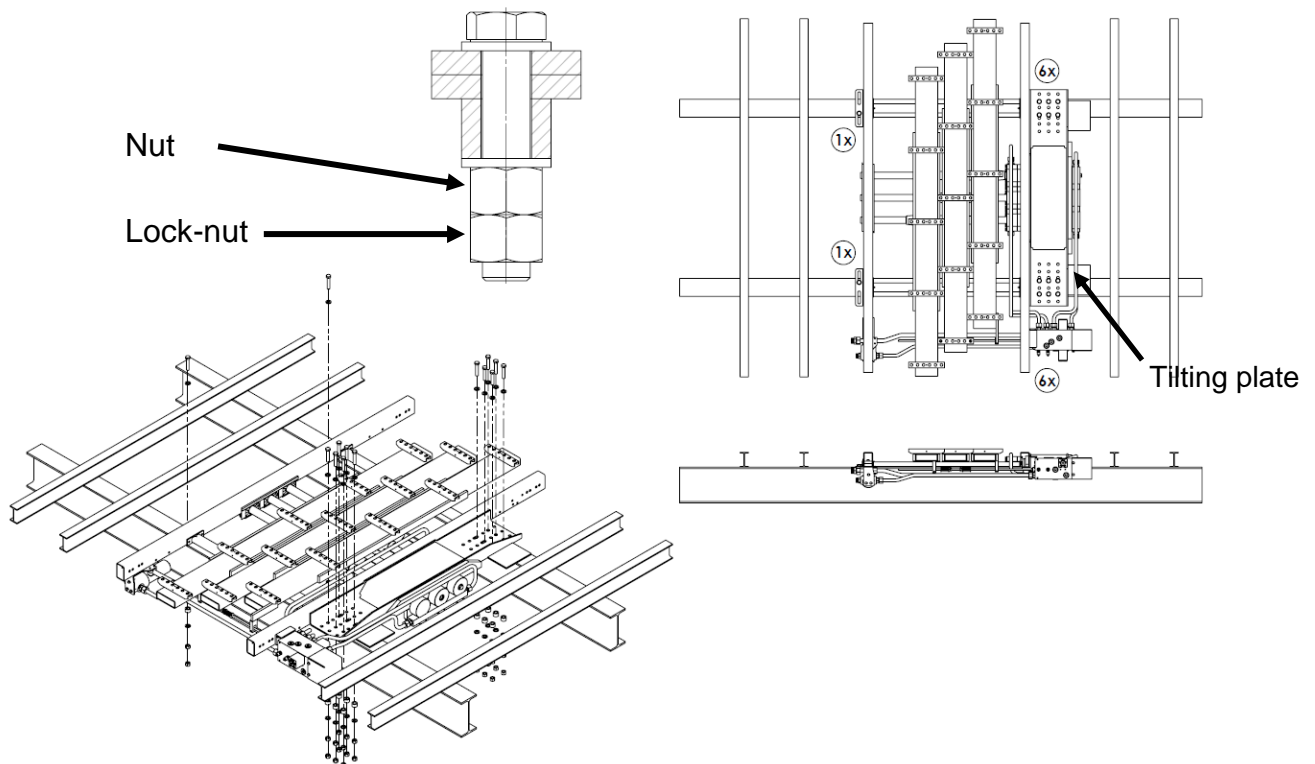
28 pieces washer Ø 30 / Ø 17, thick 3 mm (DIN125) [Ø 1.25" / Ø 0.75", thick 0.12"]

14 pieces spacer ST52-3 Ø 30 / Ø 17, length 20 mm [Ø 1.25" / Ø 0.75", length 0.79"]. Parts no.: 5451005

For an aluminium chassis we can advise, as an alternative to the spacers, to use a strip (thickness 20 mm. [0.79"]) with corresponding hole pattern.

Torque of the M16 nuts is 300 Nm [215 lbf.ft]

FIG. 7



Welding (see fig. 8)

Good quality welds, of the appropriate lengths, need to be made at the points indicated in the drawing (figure 8).

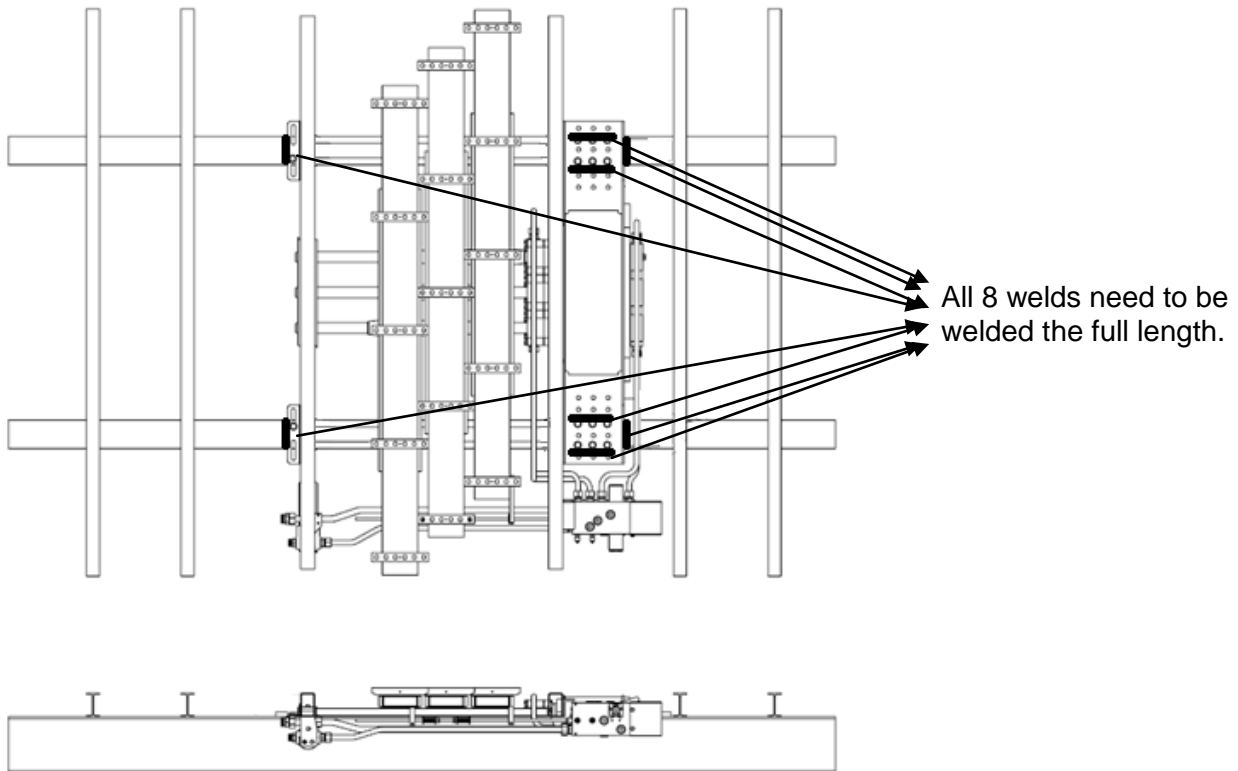
The tilting plates at the rear side of the rear bridge need to be removed before welding the rear bridge to the chassis (figure 7 & 8).

Use a weld width of min. $a = 10$ [$a = 0.5''$].

Bracing of the Cargo Floor system is not necessary.

Pay attention to that if the sub frame is zinced (as option with at SLC system) the spots that need to be welded are cleaned of the zinc coating.

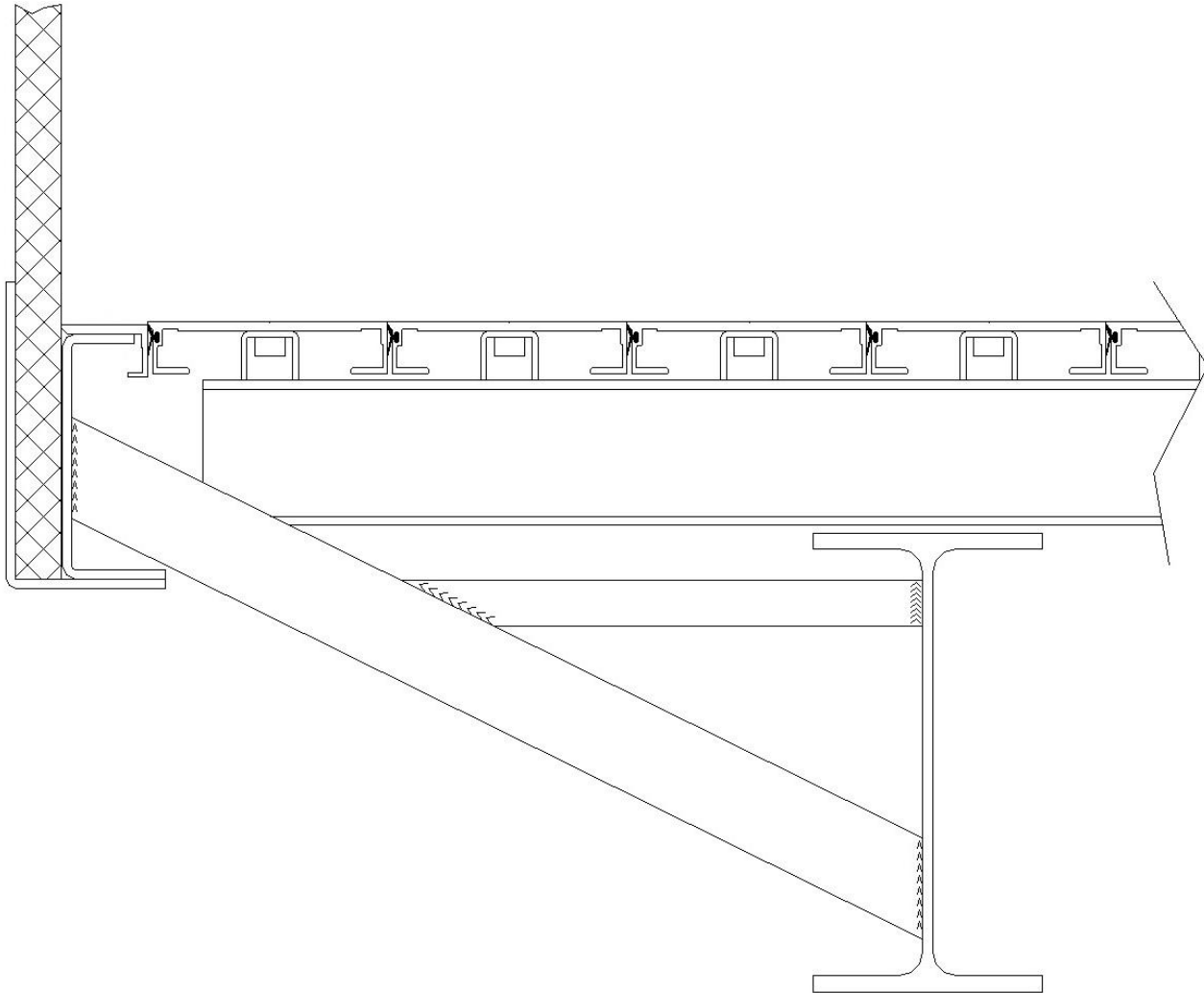
FIG . 8



BRACING THE SIDE WALLS

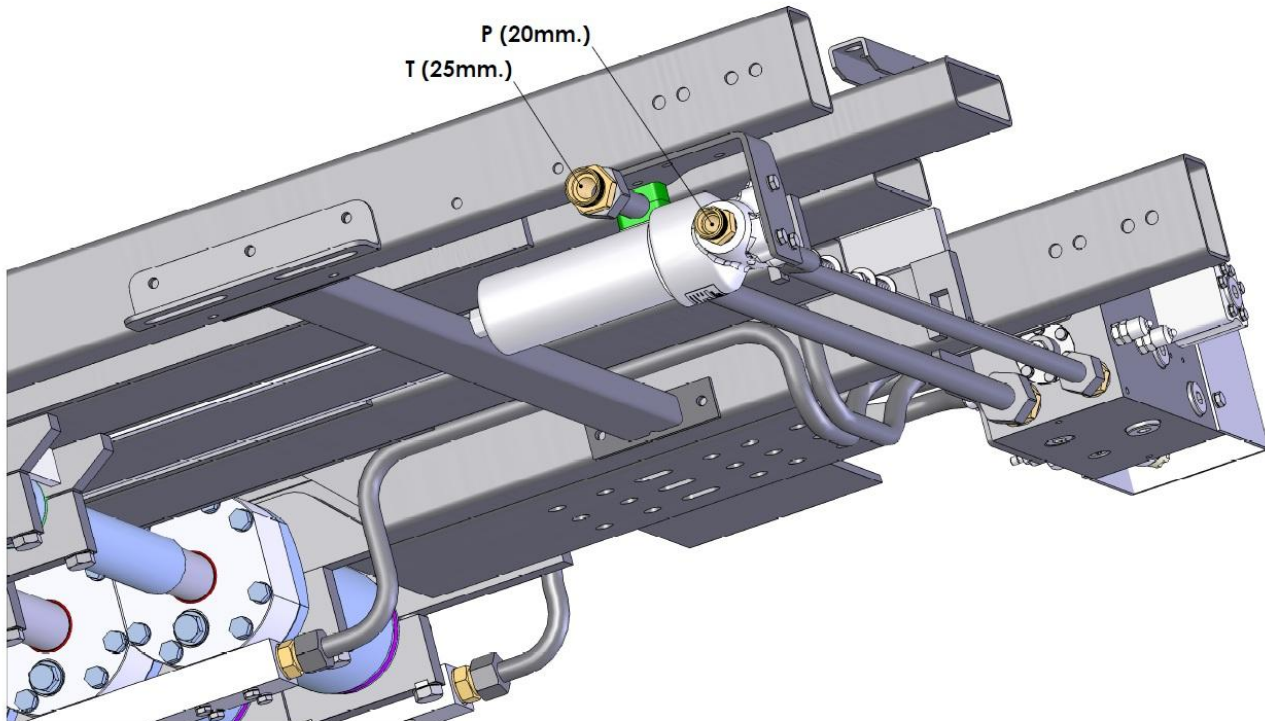
The sidewalls of the Cargo Floor system are not supported since no crossbeams are used. This can lead to buckling of the sidewalls when the system is heavily loaded. This can be avoided by fastening the sidewalls to the chassis. Figure 9 shows how this can be done.

FIG. 9



CONNECTING THE HYDRAULICS

FIG. 10



The Cargo Floor system is supplied as standard with a pressure filter already mounted on the front bridge, see figure 10. There is a hydraulic pressure pipe (20 x 2 mm) already mounted from the control valve to the pressure filter. The 'in' channel of the pressure filter is provided with a straight screw-in coupling 1"x20 mm. Next to this is a hydraulic return pipe (25 x 2,5 mm) mounted from the control valve to the front bridge, ending in a straight connecting coupling 25x25 mm. You can connect the required hydraulic hoses (not included in delivered package) directly to these connectors (the supplied turnbuckles and cutting rings are not required then). If you mount a hydraulic pipe instead of hydraulic hoses then you can use the turnbuckles and cutting rings.

⚠ Important: connecting pressure and return wrongly will cause a malfunction, and damage to, the system.

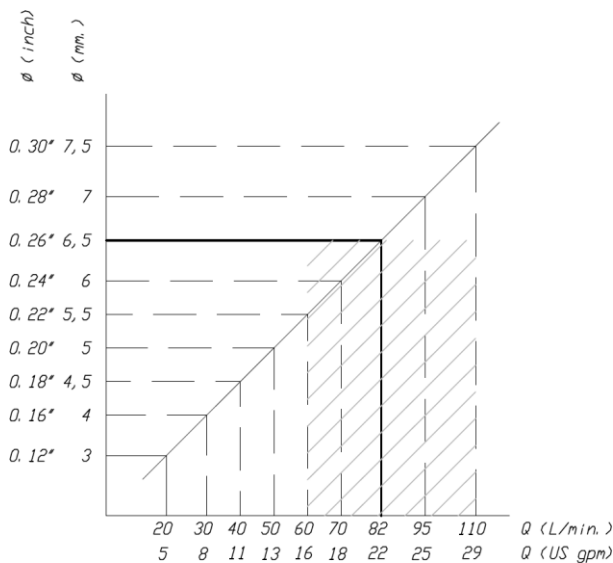
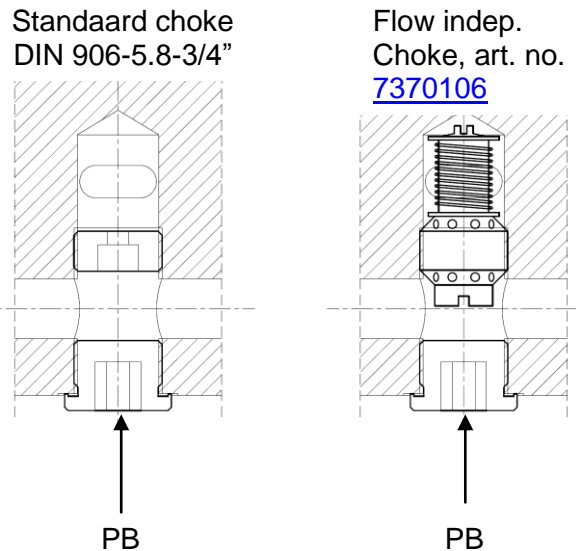
Important

All hydraulic components need to be carefully cleaned before being connected, making sure that no sealing caps / cleaning wads are left behind.

Try to use as few (square-)angled couplings as possible (as these cause pressure loss, or build-up of return pressure).

After connecting the system, it may not be operated. Operation may only be done at the moment that the trailer and floor have been fully built!!!!

If different types of pumps or a pump with a low oil flow will operate the E-controlled Cargo Floor system, it could be that you have to pay attention to mount another type of choke.

FIG. 11

FIG. 12


The shading points out the reach of the standard choke. Only applies to an E-control!

Choke

There is a standard choke of 6,5 mm. [0.26"] mounted in the PB channel of the control valve. This allows the control valve to function correctly. This choke is suitable for an oil flow level of 60 to 110 litres [16 to 29 gpm] per minute. The function of the control block can be affected by a deviation from this oil flow level. The oil flow diagram (figure 11) shows which level of oil flow is required for what opening. Adjustment of this is possible by simply changing the diameter of the choke.

Known consequences of a wrong choke diameter are:

- Oil flow too low: load/unload valve not switching, floor will not get into loading position or remains in loading position.
- Oil flow too high: noise in system, high heat dissipation and capacity loss.

Flow independent choke

As an option a flow independent choke can be supplied (variable choke parts no. [7370106](#)). The standard mounted choke can simply be changed with these. You remove the socket plug out of channel PB (Allen key 12 mm) Figure 12. After this you screw the choke out of the channel with allen key 12 mm. Screw the new variable choke in the channel and fasten these by hand (about 15 Nm [11 lbf.ft.]). Screw the socket plug back into channel PB (allen key 12 mm) and fasten these by hand (about 15 Nm [11 lbf.ft.]). Let the floor run (loading and unloading) in order to check if everything is functioning well and no leakage occur. The variable choke has a flow range of 20-120 ltr./min [5 – 31 gpm] ± 10% when using a VG32 and is suitable for a maximal work pressure of 225 bar [3,300 psi].

! Important: connecting pressure and return wrongly will cause a malfunction, and damage to, the system.

B- control

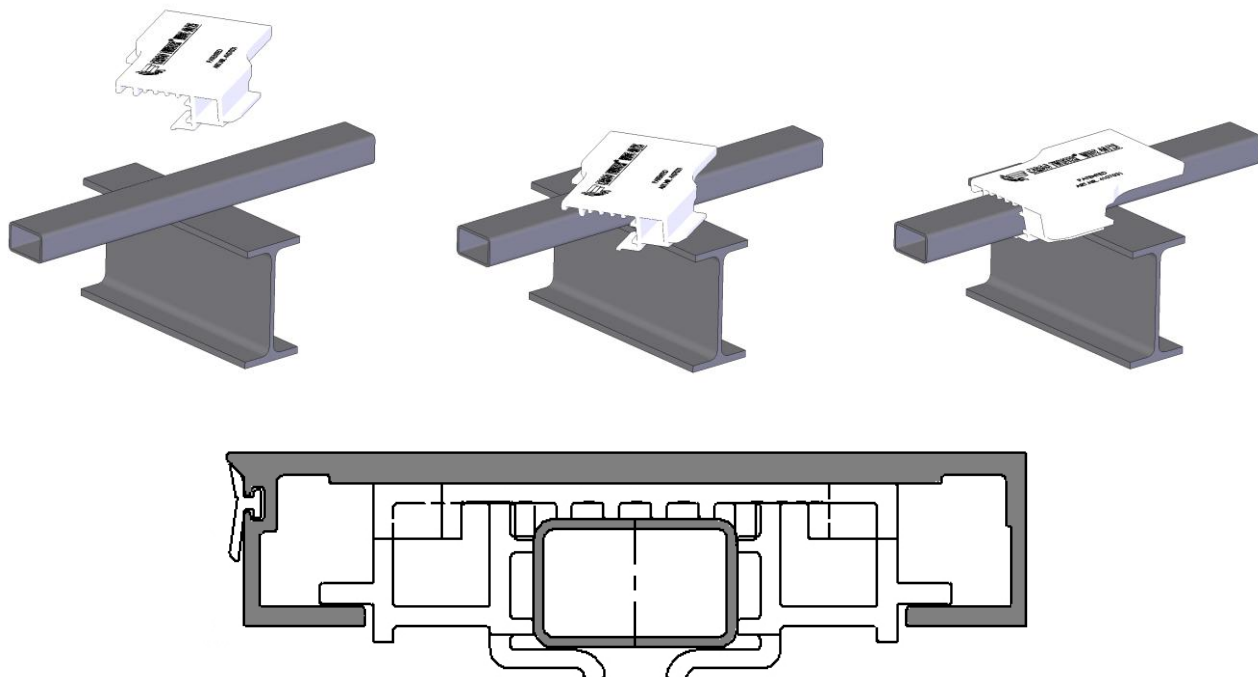
Another possibility to be independent from a variable oil flow is using a B-control. With this a handle determines the loading/unloading direction.

MOUNTING THE PLASTIC BEARING “CARGO TWISTER WIDE 40/25”

After the rectangular tubes (40x25 mm [1.6"x1"]) are spray painted (pay attention to that the tubes are not painted too thickly and surely do not have drops on them) the plastic bearings can be mounted. This can be easily done with one hand, without any tools, on the unique patented Cargo Twister WIDE 40/25. On each cross member the Cargo Twister WIDE 40/25 is placed diagonally over the rectangular tube and the bearing is rotated (twisted) through a quarter turn so that the feet of the plastic bearing move under the rectangular tube and a click is heard (fig. 13).

If you have cross members with a flange larger than 60 mm. [2.35"] then the Cargo Twister WIDE cannot be mounted and in its place the SPECIAL WIDE Bearing 40/25 needs to be mounted. The SPECIAL WIDE Bearing can be used with flanges up to a width of 120 mm [4.7"].

FIG. 13



MOUNTING THE PLASTIC BEARING AND ANTI LIFTING SPECIAL WIDE BEARING 40/25

After the Cargo Twisters WIDE have been mounted the spaces in between can be filled with the SPECIAL WIDE bearing 40/25. This bearing is meant for cross members wider that 60 mm [2.35"] but smaller than 120 mm [4.7"].

The mounting of the unique and patented SPECIAL WIDE Bearing 40/25 (fig. 15) is simple and can be done without tools and only using one hand. You place a SPECIAL WIDE bearing 40/25 (parts no. [4107034](#)) over the rectangular tube and push it down. Because of the shape of the bearing, it will remain at its place.

The very last opening at the doors of the trailer must be equipped with 1 row of anti lifting. You also use the SPECIAL WIDE bearing 40/25 for this, the anti lifting effect of the profiles is achieved by mounting this bearing the other way around (fig. 14).

FIG. 14

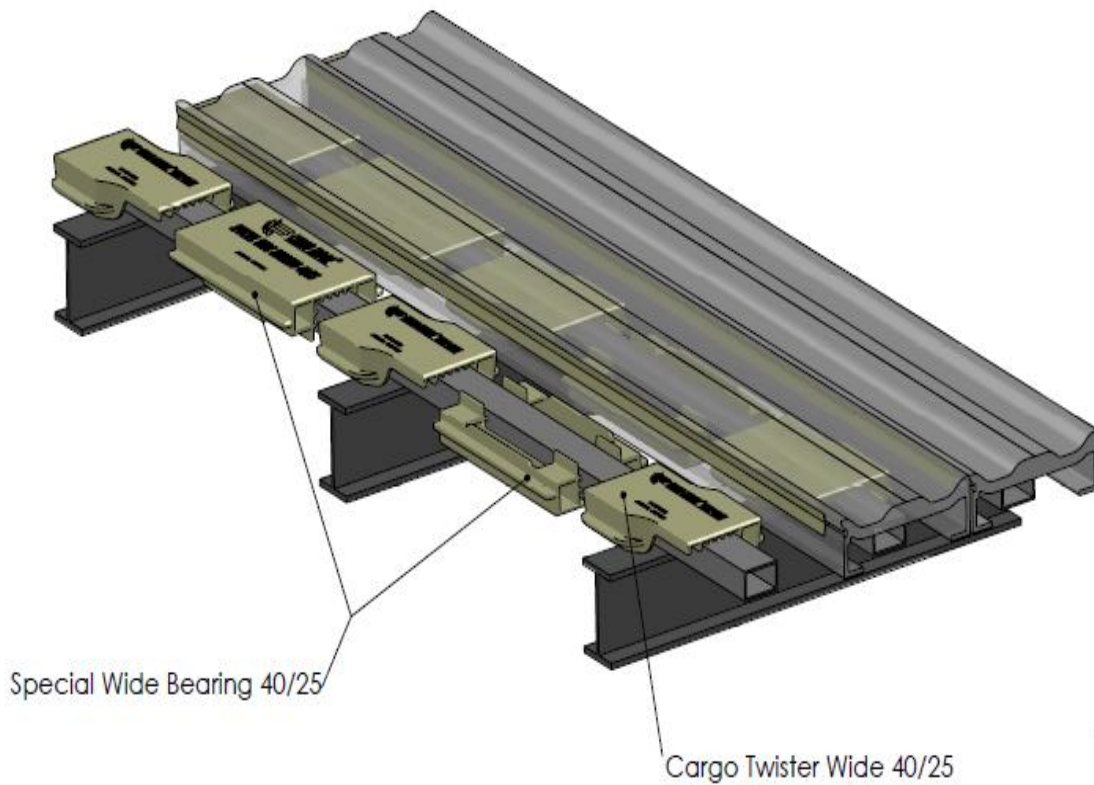
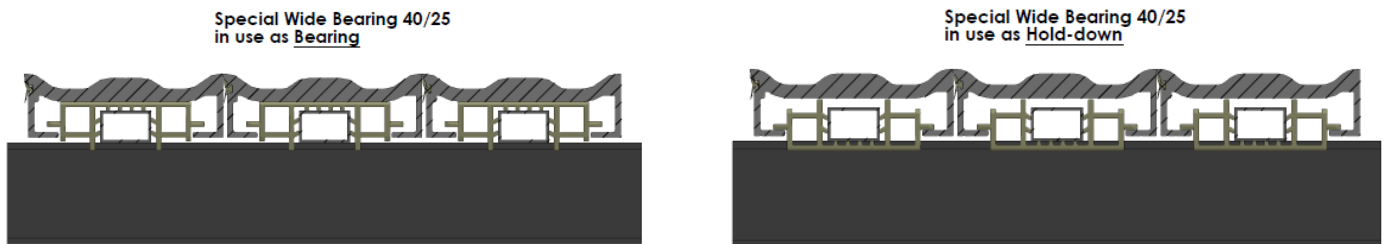
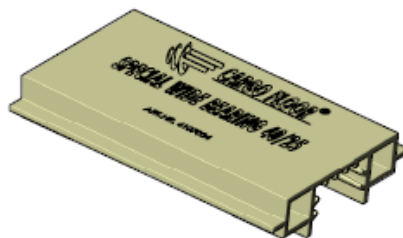


FIG. 15



CUTTING THE FLOOR PROFILES TO SIZE

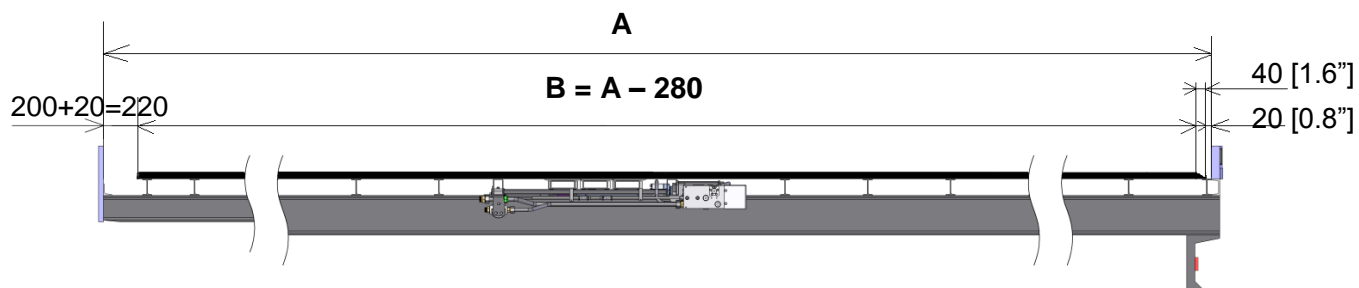
Start by placing all profiles in the same direction and the same direction, as they will be mounted into the trailer, in order to prevent measuring errors.

After the plastic bearings are mounted the aluminium floor profiles can be cut to size (see figure 16). Pay attention to the fact that the floor profiles must be shorter than the inner measurement of the construction, and take into account whether the door is inside or outside the tailgate.

At the rear side the length of the end block, 40 mm [1.6"] should be taken into account.

An extra space of 20 mm [0.8"] should be adhered to at the front and the rear of the construction.

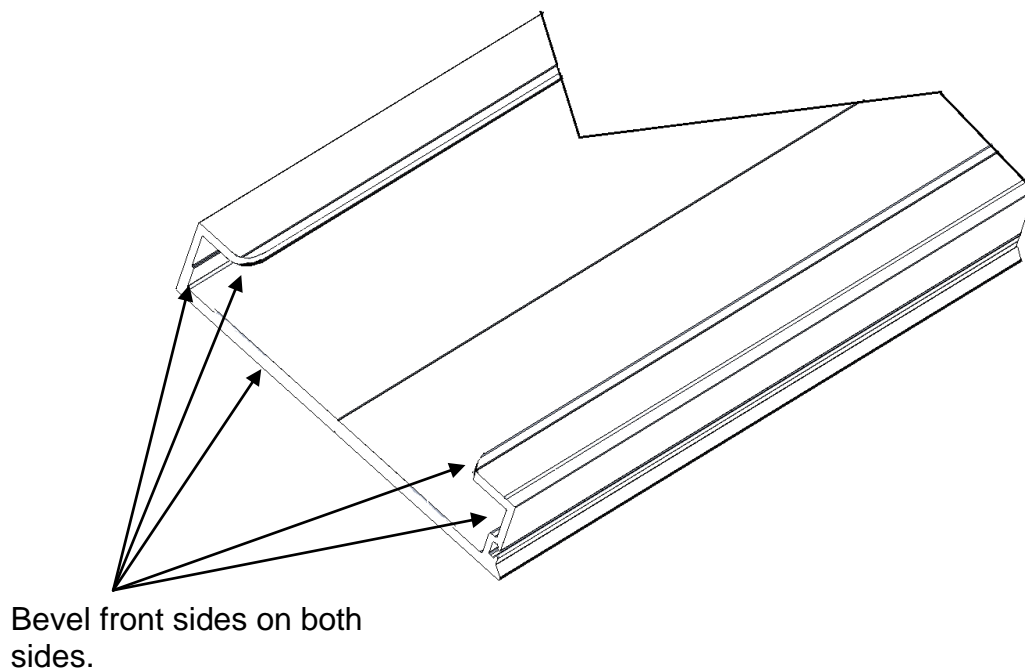
FIG. 16



After cutting the floor profiles to length they need to be rounded-off (beveled) at the front according to figure 17, so as to ensure a smooth guiding of the floor profile while sliding in, and to prevent damage to the plastic bearing.

To aid mounting, the rounded-off (beveled) side needs to lie in the mounting direction of the vehicle. Let the profiles remain with the underside facing up for the next phase (mark holes and drill these).

FIG. 17



PROFILES

FIG. 18



79.5208

Alu profile 6/156,8mm smooth
79.5208



80.5439

Alu profile 6/156,8mm-DS smooth
80.5439



81.5440

Alu profile 10/156,8mm smooth
81.5440



82.5441

Alu profile 10/156,8mm-DS smooth
82.5441



83.5533

Alu profile 10/22-156,8mm XHDI
83.5533

DETERMINE THE POSITION OF THE HOLES IN THE PROFILES

First you need to determine the position of the holes in the profiles, see fig. 19.

Check if the cylinders are fully retracted. You check this as follows: the ends of the piston rods may not protrude out of the guide block for cylinderbar more than 5-10 mm. [0.20-0.39"].

The position of the first hole is determined by taking the measurement from the inside of the door side to the first hole in the U-profile moving crossmember of the third group. From this measurement you deduct 60 mm [2.4"] and with this you have determined measurement A.

Put a mark on the bottom side of the 5 profiles of the 3rd group at the spot of this first hole.

With theXHDI and HD profile take into account that on the left or right side a double seal (=DS) profile needs to be mounted. When marking the holes of the group that will have the double seal profile this group needs to have 1 less standard profile. (Meaning: the 15 profiles are divided up in 1 group of 4+1 (DS) profiles and 2 groups of 5 profiles.)

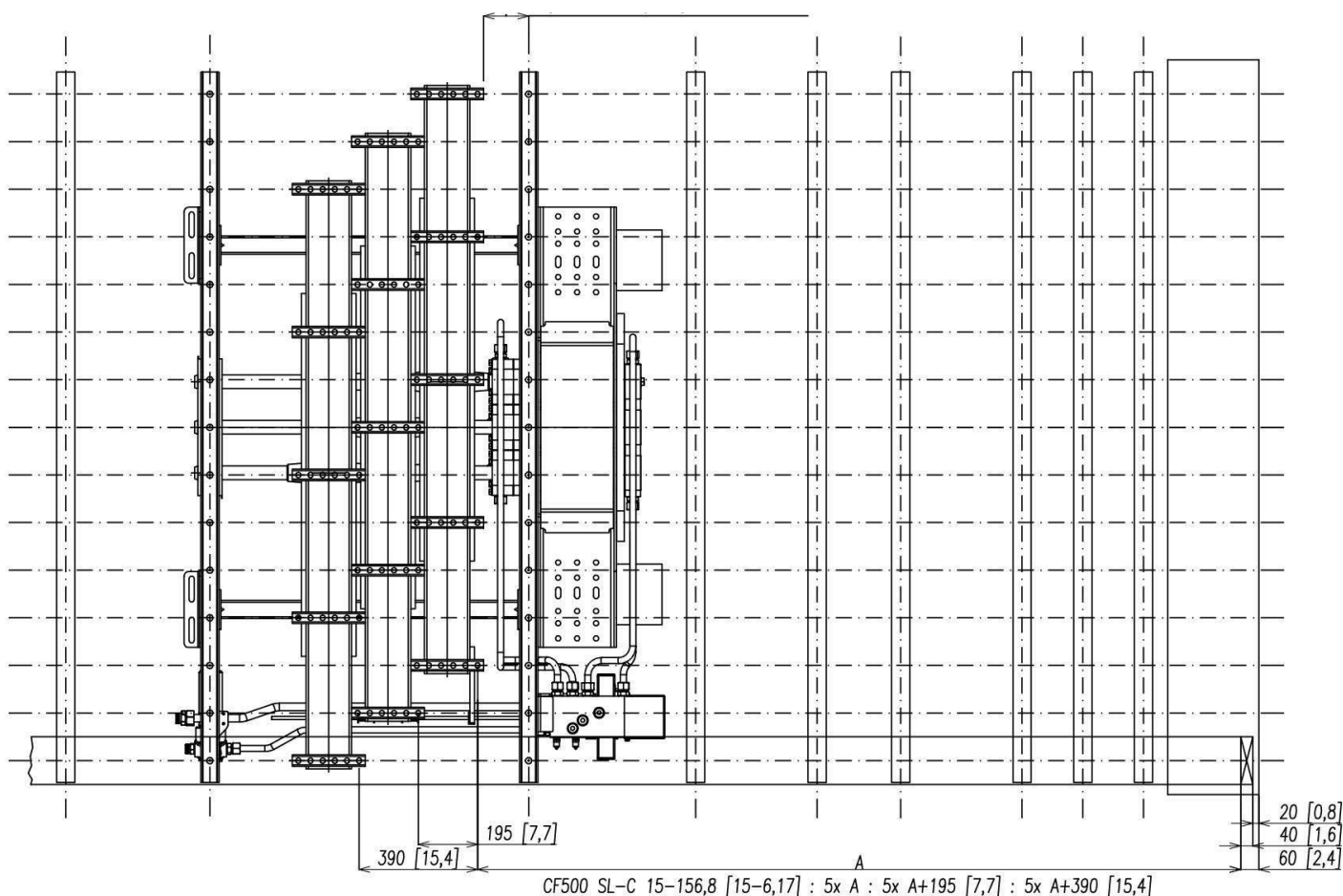
The 5 profiles of group 3 will have the hole pattern on measurement A.

The 5 profiles of group 2 will have the hole pattern on measurement A + 195 mm [7.7"].

The 5 profiles of group 1 will have the hole pattern on measurement A + 390 mm [15.4"].

FIG 19

Cylinders fully retracted



DRILING THE HOLES IN THE FLOOR PROFILES

Because of the large forces on the bolt connections the profiles need to be fastened with 6 bolts M12. The holes in the profiles need to be drilled before these are placed.

- Place the First hole of the Cargo Floor drilling jig (parts no. [9111009](#)) on the marking you have done for the first hole in the floor profile. Align the drilling jig in accordance with the centre line that you can find at the underside of the floor profile. Fasten the drilling jig with a hand screw and drill the 6 holes (6 holes of $\varnothing 4,5$ mm [0.18"]).
- Next the holes need to be countersunk from the top side using a good countersink bit according to the specification G136 HSS DIN 335 C, code 13628.0 (figure 21 A). Make sure that the hole is countersunk to the right depth; the screw head must not stick out above or under the floor profile. See figure 21 B. It is also important that the drill bit has the right top angle and has no damages on the cutting edges. The contact surface of the bolt head needs to be exact in the countersunk hole.

FIG. 20

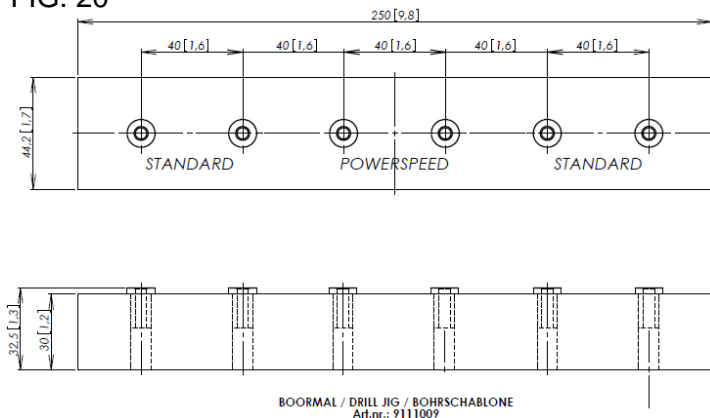


FIG. 21 A

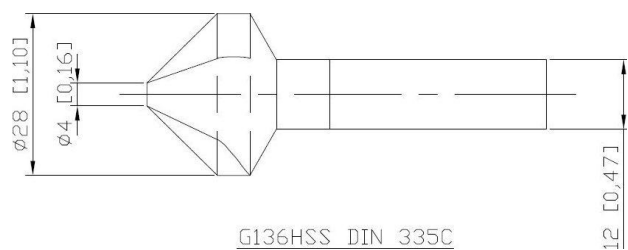


FIG. 21 B

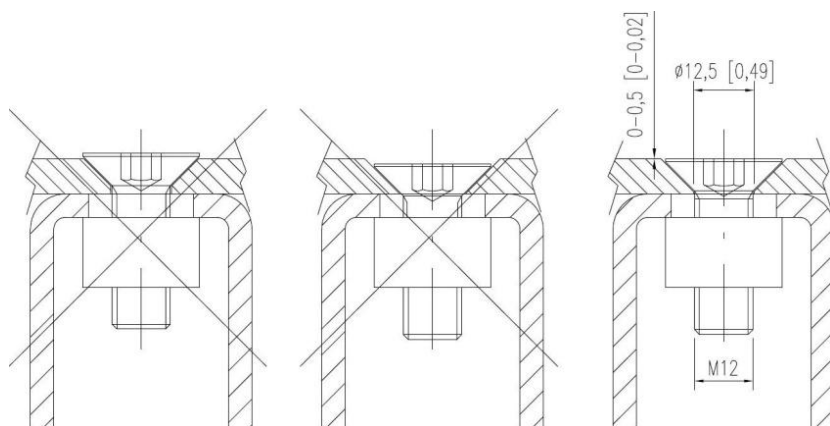
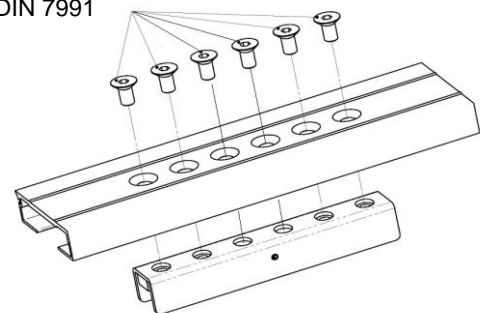


FIG. 21 C

M12 x 30- 10.9
DIN 7991

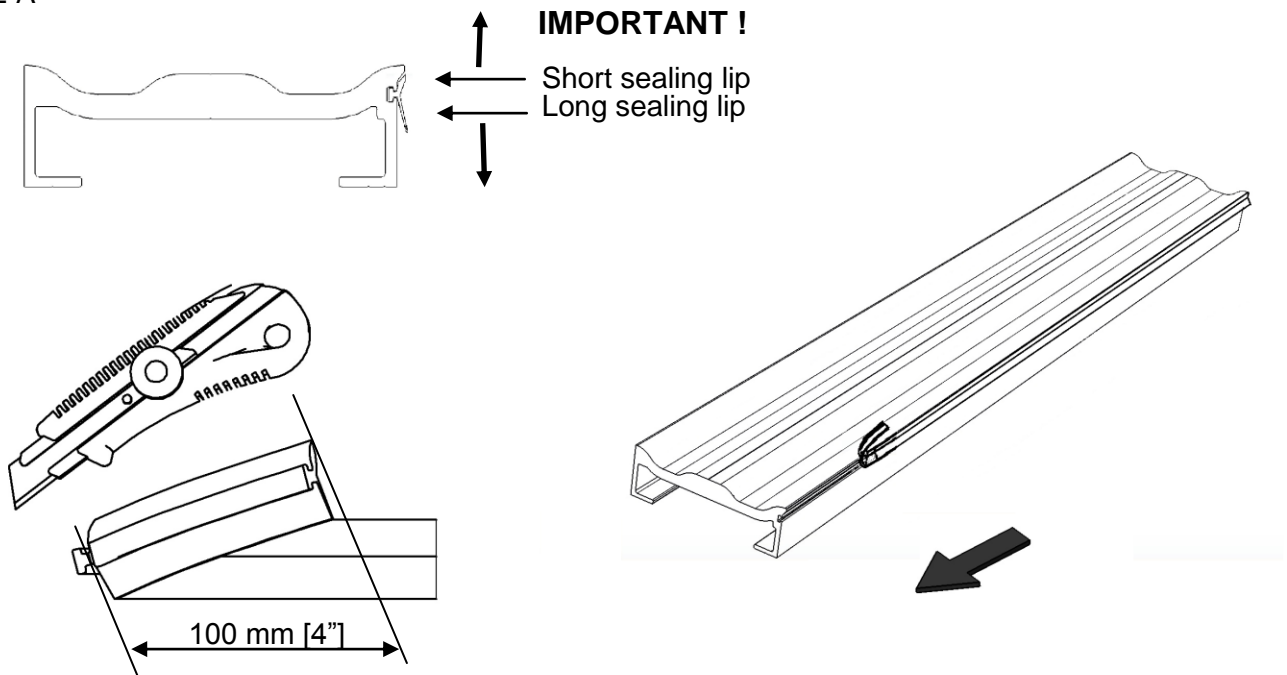


MOUNTING THE SEAL AND SEALBLOCK

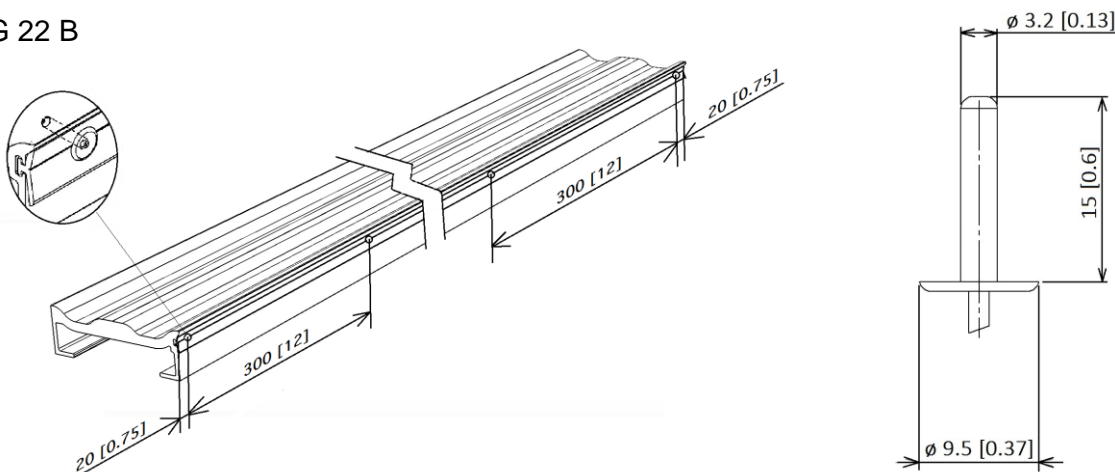

Attention: If you want to secure the sealblocks by welding, then this needs to be done before mounting the seal see fig. 22 A. The welding needs to be done on the outside at the top side and on the inside at the topside.

Lay all the floor profiles on their sides against one another, with the groove of the seal facing upwards. The groove in the floor profile needs to be clean (if necessary blown through with compressed air) before the seal can be mounted.

The seal is supplied on a roll. In order to install it simply, one needs to determine from which side of the groove the seal needs to be pulled. The **short** lip of the seal always needs to point upwards and the **long** lip needs to point downwards. See figure 22 A.

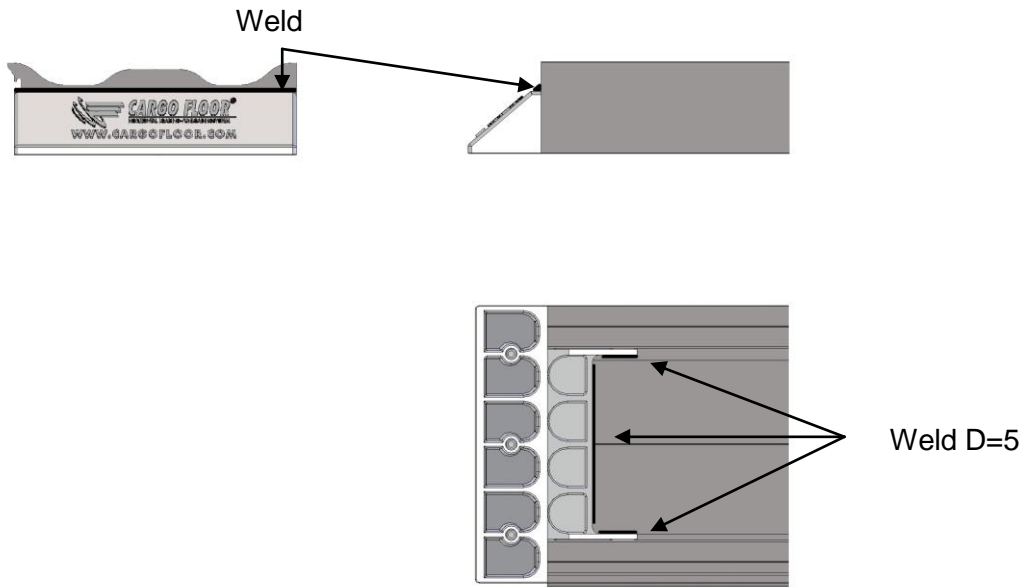
FIG 22 A


To aid the mounting of the seal, snip / cut about a little into the T-form at about 100 mm. [4"] from the start (this will form a handgrip). Next, place the T section of the seal in the groove and, using the handgrip, pull the seal into the groove in the floor profile until the end of the floor profile. The cut will now be at the end of the floor profile. Now the seal can be fastened at one of the sides with the special rivet (parts no. [5017001.1](#), see fig. 22 B). Then tension the seal by stretching it by at least 500 to 1000 mm. [20" to 40"] (until you start to feel higher resistance and the length of the vehicle), this means about 6 to 10 kg [13 to 22 lbs]. pulling force. After tensioning the seal place the remaining pop-rivets 3.2x9.5 according to figure 22 B.

FIG 22 B


The **sealblocks** can now be mounted. The sealblock can be hammered into the profile with a plastic hammer. Fasten the block by welding it on the inside and outside according to fig. 23.

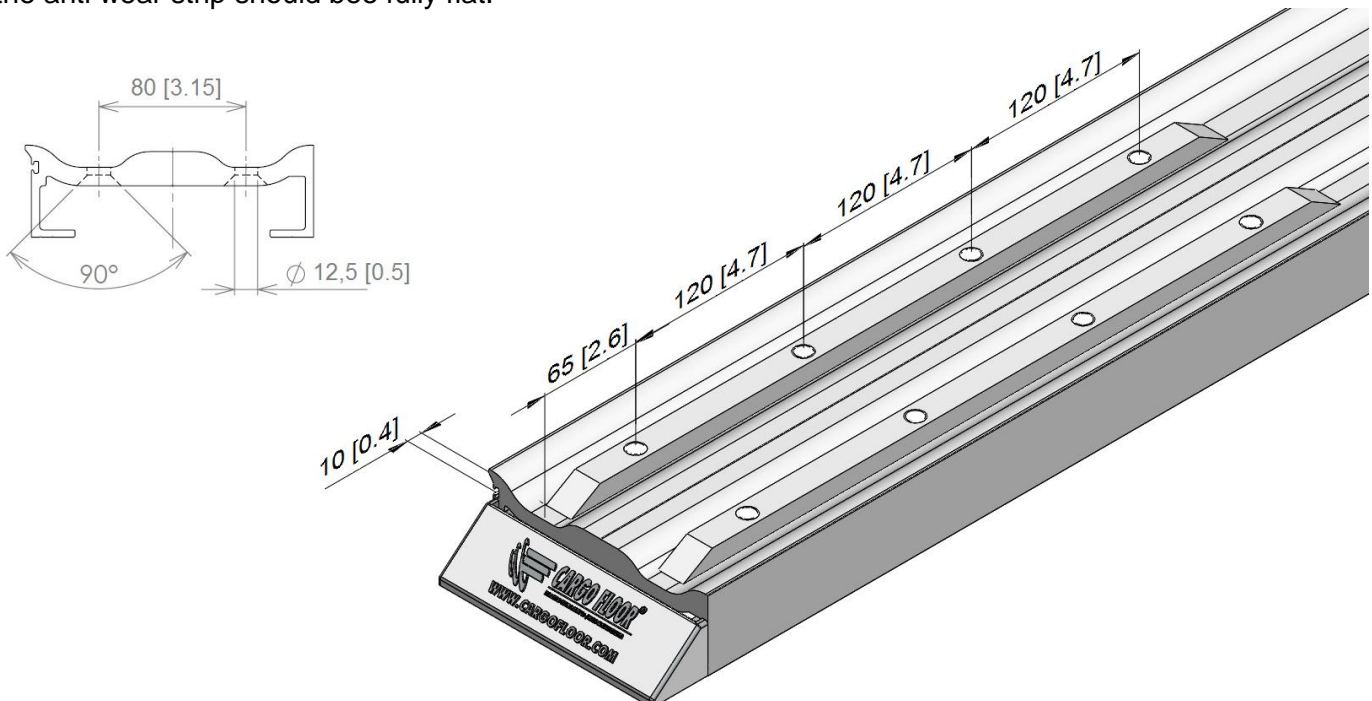
FIG. 23



OPTION: ANTI WEAR STRIP XHDI

If you have chosen to use the anti wear strip (parts no. 8199005) you can now drill the holes for this. These anti wear strips are exclusively for the XHDI profiles. Use the measurements given and first predrill the 4 holes with \varnothing 4,5 mm. [0.18"] after which drill the holes to \varnothing 12,5 mm. [0.5"]. Tip: the simplest way to do this is from the top side of the profile. Then the holes need to be countersunk from the inside. Use a countersink drill with specifications: G136 HSS DIN 335 C, code G13628.0. Pay attention to countersinking the hole to the right depth, the head of the screw may not protrude out of the under and top side of the floor profile. Now mount the anti wear strip and use the countersunk screw M12x30 with lock tite (parts no. [502112030.1](#)) and fasten the wear strip tightly.

Next turn the profile and grind off the parts from the screw that protrude out of the wear strip, the top side of the anti wear strip should be fully flat.



SECURING THE FLOOR PROFILES TO THE DRIVE UNIT

After the floor profiles have been cut to size, rounded-off, drilled, and had the seals and sealblocks mounted, they can be slid over the plastic bearing at the required position (matching up the hole pattern with respect to the moving crossmember). You need to carefully guide the floor profiles during the mounting procedure. Next, mount the provided galvanized M12 bolts with countersunk head using Allen No. 8. Loctite (Loc-tite 243 cat.o. 23286 screw thread locker) needs to be put on every bolt beforehand.

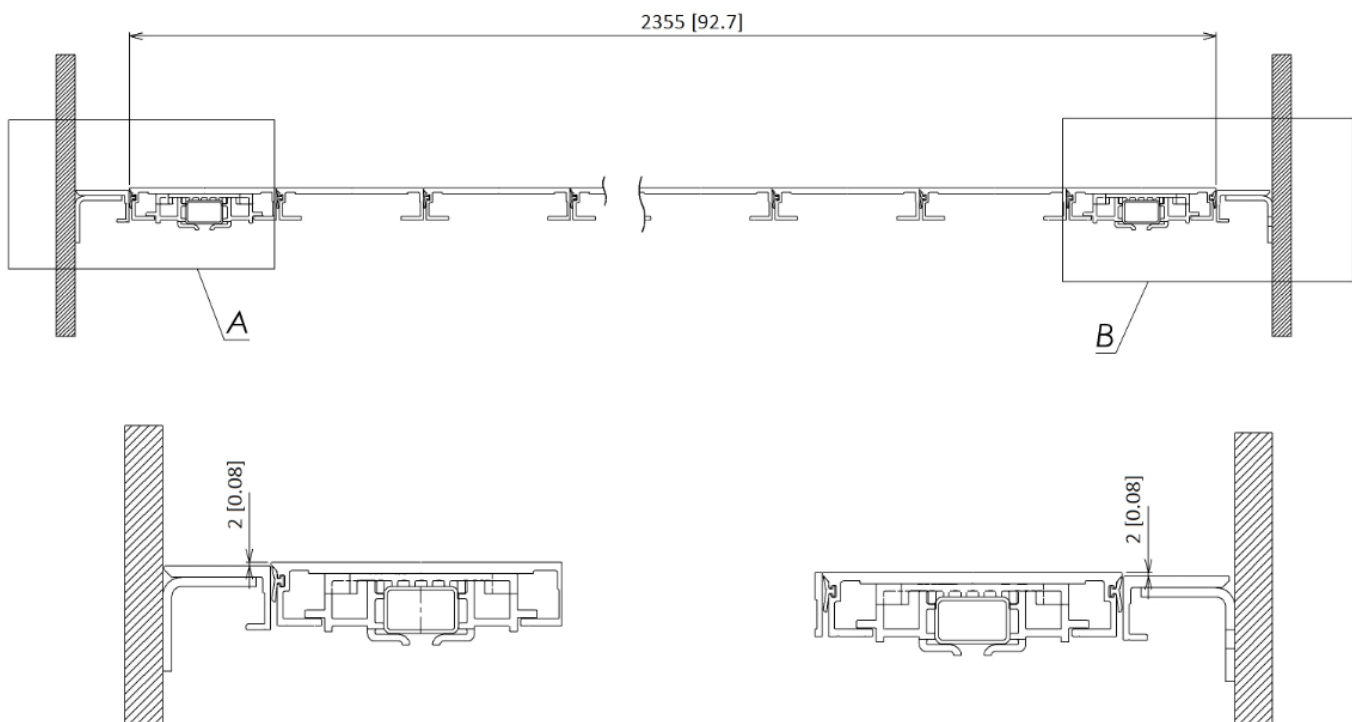
Now fasten every profile with 6 bolts, a torque of 100 – 140 Nm [72 – 105 lbf.ft] should be used to tighten the bolts. One person can do this from above, and the bolts need to be well tightened. (fig. 21 C).

SECURING THE STATIONARY SIDE PROFILES

The stationary edge profiles need to be pushed firmly against the moving floor profiles before the stationary profiles are secured. Next the stationary edge profiles need to be secured every 1500 to 2000 mm [59" to 78.]" with mono-bolts, with countersunk heads, which are not permitted to stick out above the edge profile (see figure 24). The opening between the sidewall and the stationary profile needs to be filled with a flexible sealant.

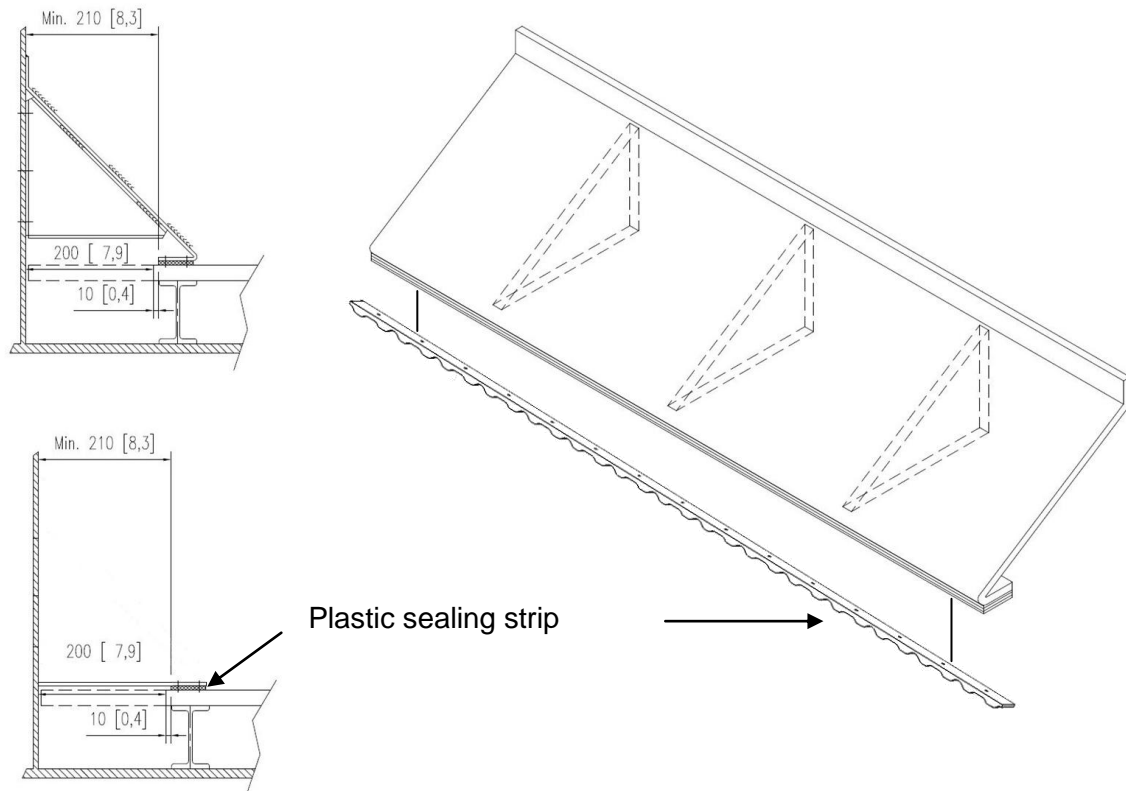
Alternatively, you can mount it with a bolt connection or make small welds.

FIG 24



It is better not to weld the stationary edge profiles completely to the sidewalls, since at a later stage the side profile may need to be retensioned, and to do this the side profiles need to be loosened.

Cargo Floor has standard side profiles available in 6 [0.24"] and 10 [0.39"] thickness, which can simply be mounted. These side profiles can be used with the XHDI and HD profiles (for the SEALLES profile an extra profile will need to be supplied for the connection to the sidewalls).

SEALING THE FRONT SIDE OF THE FLOOR
FIG. 25

Front

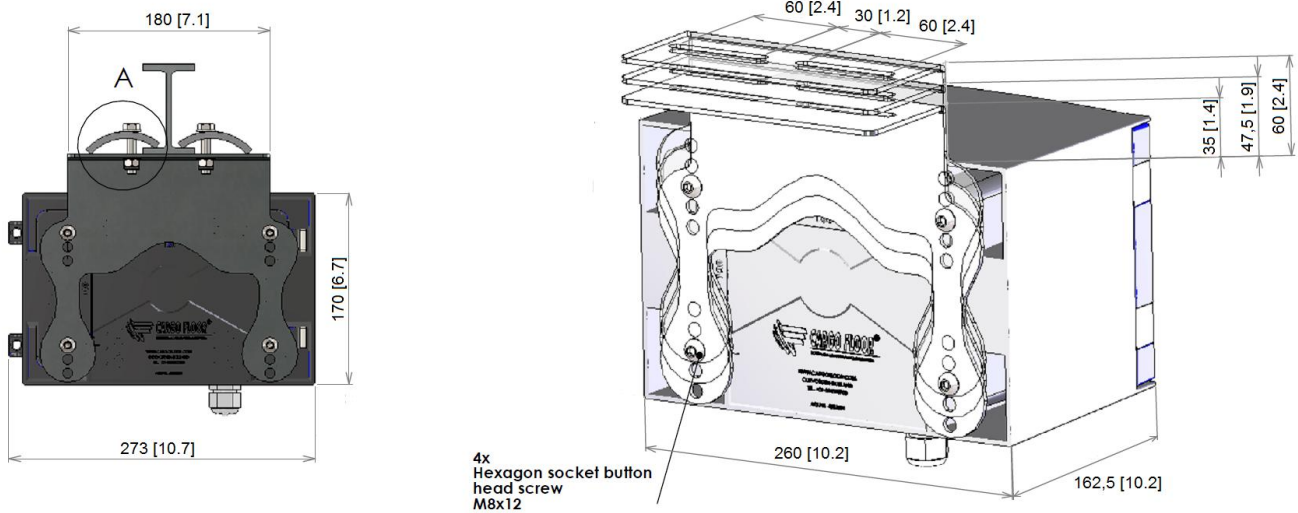
A reinforced flat plate (length minimum 250 mm [10"]), width dependent upon the inside of the trailer, mounted on the front wall of the trailer can be used to cover the opening created by the operational stroke of the system. On the underside of the front part of the cover plate a plastic strip 156,8 needs to be mounted in order to prevent wear and attain a good sealing. Different strips are available for the different kinds of profiles (XHDI: parts no. 4103040 / HD parts no. 4103039 / Sealless parts no. 4103041). Ensure here that the fasteners countersunk in the plastic strip are mounted so that they do not come in contact with the floor.

A heavily reinforced cover plate needs to be mounted at an angle of 45° for trucks that are used for loading / compressing, see figure 25.

The construction needs to be very sturdy, so that it will not buckle or rise up.

MOUNTING THE CONTROL BOX AND THE ELECTRICS

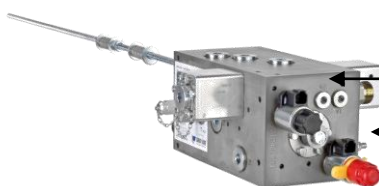
The control box can simply be mounted, without drilling holes, to your own mounting construction or on the mounting bracket that can be supplied as an option. This mounting bracket can, depending on the shape of the crossmembers, be mounted without drilling holes with the supplied clamping plates. The mounting bracket has three heights for mounting the control box. Also the, optional, wireless remote control RX/TX can simply be mounted into the control box, with the E-control as well as the E-control.



E-CONTROL

With the E-control the controlbox CF7 is provided with 3 electrical cables:

- 1x 2 core connection cable for the power supply. The brown cable needs to be connected to the 24V+ and the bleu cable to the 24V-.
- 1x 2 core cable with premounted black plug Deutsch for solenoid GS02 on/off;
- 1x 2 core cable with premounted grey plug Deutsch for solenoid G02 unloading/loading;



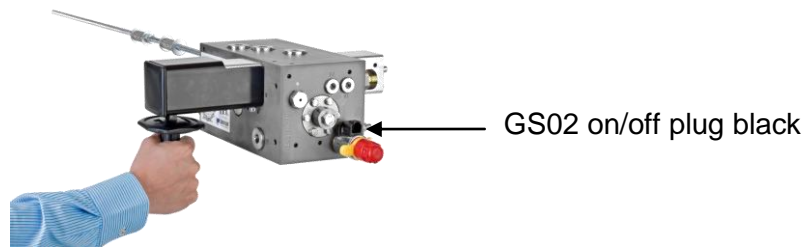
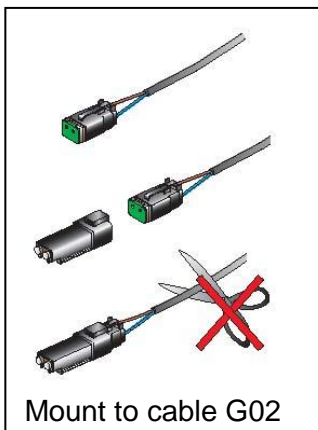
← G02 unloading/loading plug grey

← GS02 on/off plug black

B-CONTROL

With the B-control the controlbox CF3 is provided with 3 electrical cables:

- 1x 2 core connection cable for the power supply. The brown cable needs to be connected to the 24V+ and the bleu cable to the 24V-.
- 1x 2 core cable with premounted black plug Deutsch for solenoid GS02 on/off;
- 1x 2 core cable with premounted grey plug Deutsch G02 equipped with a wattertight end cap and sticker "do not cut".



It is important that the wattertight plugged cable with plug is mounted, but not can nor needs to be connected. This cable and plug need to be fastened somewhere near the control valve. The mounted wattertight plug may not be removed.

THE MOVING HEADBOARD

The moving headboard can be made from sidewall profiles reinforced by an edge profile. It is also possible to use a frame with a tarpaulin as a moving headboard. It is the best to hang the headboard on two Cargo Rollers, Heavy Duty, 6 wheels with bi-directional cleaning device in the rails (part number [5165003](#)), see figure 31, mounted on the top edge of the trailer. Many aluminium top edges have this rail already integrated. Mount the rails at the same width as the width of the trailer.

The moving headboard needs to be fastened to the Cargo Roller with at least 3 lengths of chains and take care that the hanging point is directly under the roller, so that the headboard can move freely and the Cargo Rollers will not jam. The moving headboard needs to run free on both sides of the sidewalls, about 25-30 mm [1"-1.25"].

Brushes or rubber flaps can be mounted between the headboard and the sidewalls to avoid leakage and to keep the sidewalls clean.

The side walls need to have a smooth surface to the headboard will not get caught.

FIG. 30

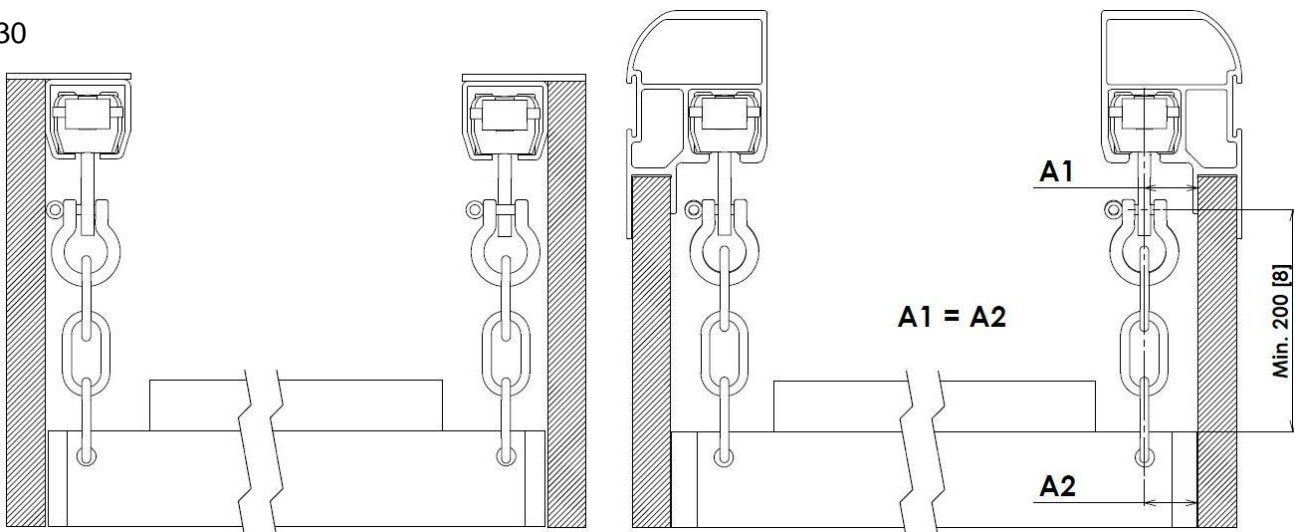
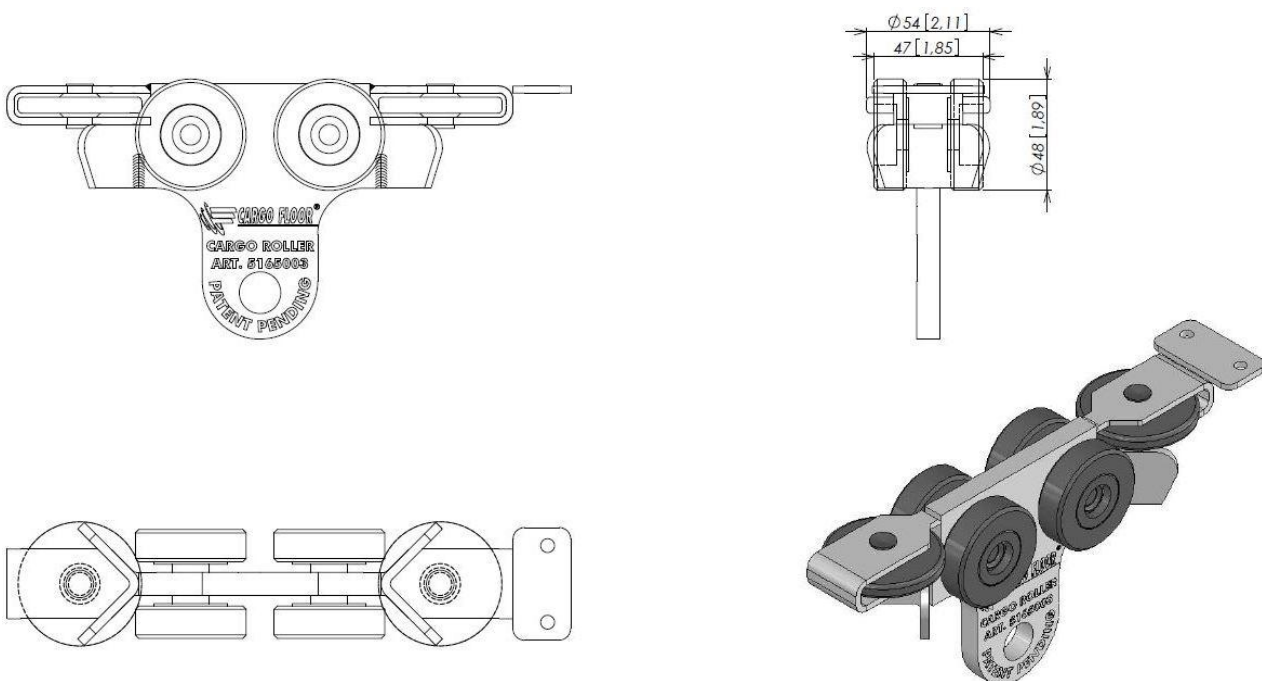


FIG. 31

Cargo Roller, Heavy Duty, 6 wheels with bi-directional cleaning device (parts no. [5165003](#)).



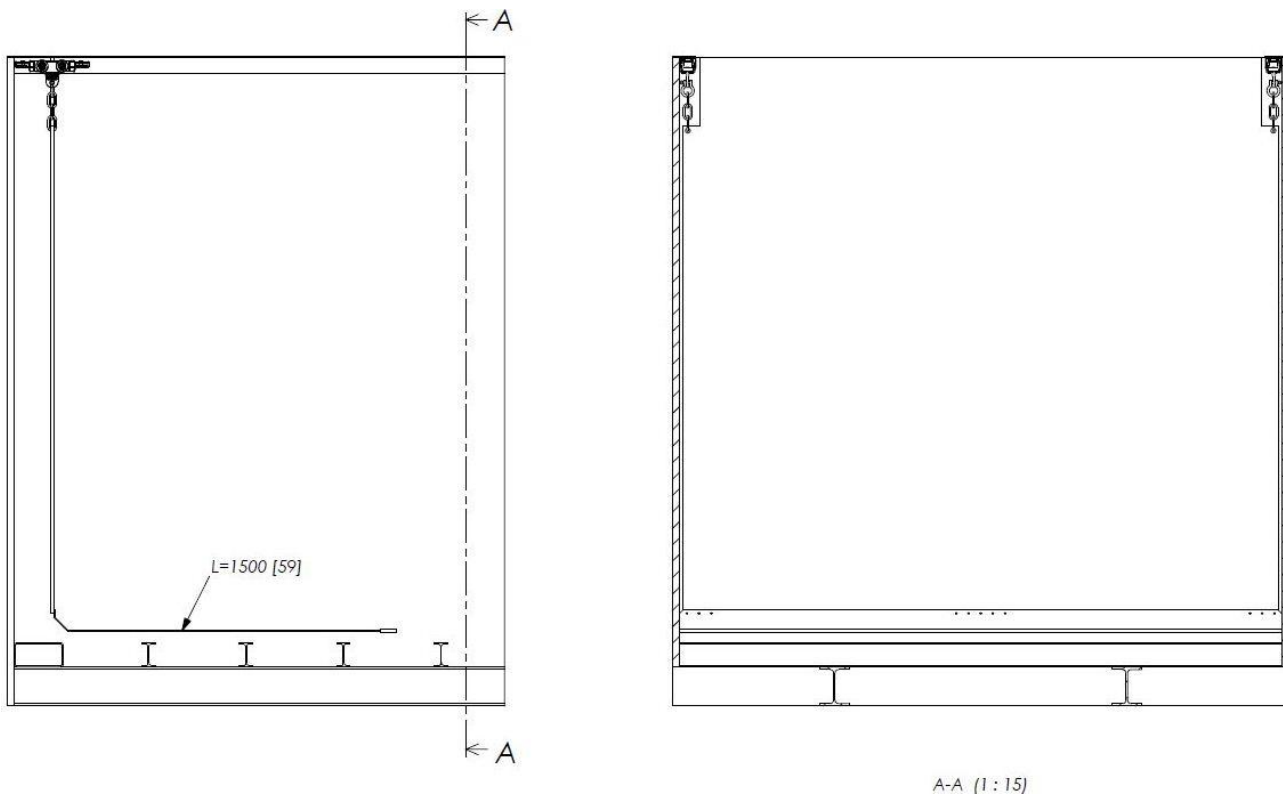
THE MOVING HEADBOARD TARPAULIN

In order to allow the headboard to move with the load, a tarpaulin is fastened to the underside of the moving headboard, see figure 32. A section of this tarpaulin (about 1250 mm. [4']) needs to lie on the floor. This section of the tarpaulin needs to be fitted with one or more pine (wood) planks. The planks are located in loops of the tarpaulin or the tarpaulin is fastened between the planks.

The tarpaulin is clamped between these planks. The fastening bolts/screws need to be well countersunk to ensure that they do not come in contact with the moving floor.

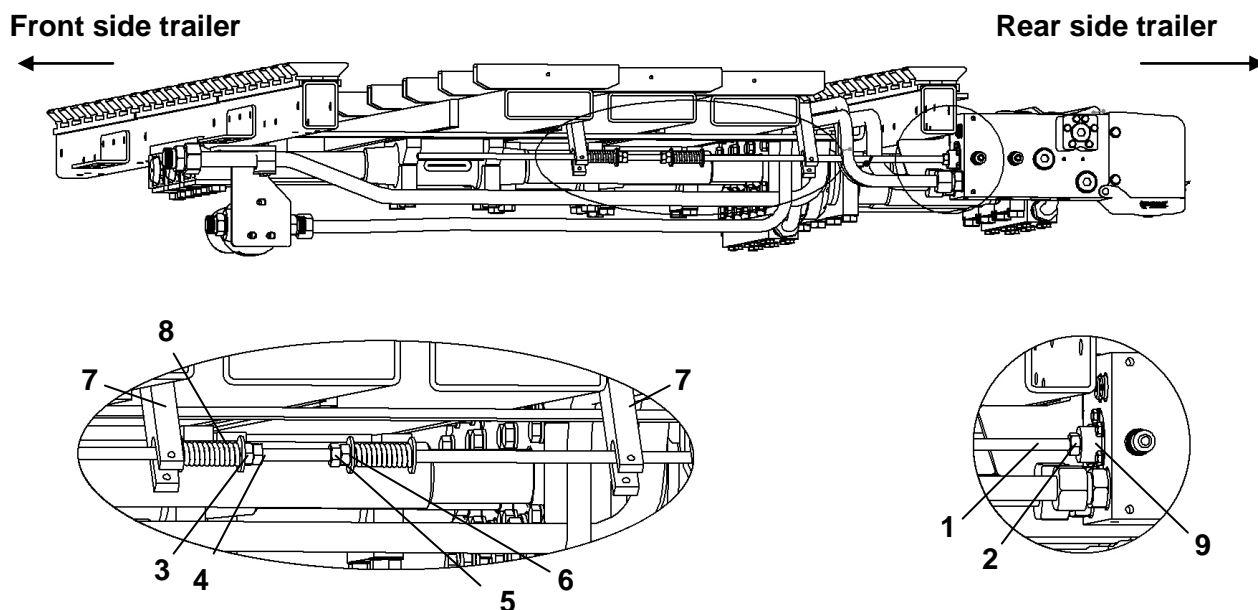
Attention: These planks are about 20 mm. [0.79"] shorter than the smallest internal width of the loading space of the container.

FIG. 32



ADJUSTMENT OF THE THREADED ROD OF THE CONTROL VALVE

FIG. 33



All Cargo Floor systems have the threaded rod set and are fully tested. You therefore do not need to adjust the threaded rod, but in certain circumstances (f.e. certain repairs) it may be necessary to check or adjust the setting of the threaded rod. If switching spontaneously does not go normally anymore, then please make a good assessment first why this has happened before changing the adjustment.

Attention: when adjusting the threaded rod take care only to touch the rod when the pump is turned off. It not the risk of entrapment arises!!!

Necessary tools:

- 2x spanner 17;
- High viscosity oil;
- Copper grease;
- Steel brush.

Check that the threaded rod (1) is fastened securely to the switching valve, with pressing and pulling the stroke is exactly 12 mm. [0.5"].

If not, then screw the threaded rod (1) as far as possible into the plunger and secure this with the contra nut (2) (spanner size 17). Loosen nuts (3 and 4, spanner size 17) and move these about 3 cm [1.25"] in the direction of the rear of the trailer.

Now switch the pump on while you are at a safe distance. The system will start to move and stops automatically at the point where the command lip (7) no longer operates the switching valve, because the spring (8) is no longer pushed. Switch off the pump immediately.

Now push the threaded rod (1) in the direction of the front side of the trailer until the spacer ring (9) touches the control valve.

Tighten nuts (3 and 4) so far in the direction of the front side of the trailer that the spring is fully pushed in, and secure them by tightening them against one another. Repeat this procedure for the other side (nuts 5 and 6) by doing everything in opposite directions.

N.B. It is worthwhile spreading some copper grease on the threaded rod (1).

TECHNICAL SPECIFICATIONS

- System operation** : completely hydraulic, with three double-action cylinders.
System control : completely hydraulic mechanical.
Operation control : fully automatic loading – stop – unloading.

	CF500 SLC	
Bore (mm)	100	[4"]
Piston rod diameter (mm)	45	[1.77"]
Stroke (mm)	200	[8"]
Cylinder volume (ltr)	2.82	[0.75 US gal]
Oil volume per cycle (ltr)	8.46	[2.25 US gal]
Over pressure valve threshold, max. operational pressure (bar)	225	[3,300 psi]
Strokes per minute with advised pump capacity	13	
Speed (mtr./min.) with advised pump capacity	2.6	[8.5 ft./min]
Advised pump capacity:		
Flow (ltr./min.)	110	[29 gpm]
Pressure (bar)	250	[3,625 psi]
Max. pump capacity:		
Flow (ltr./min.)	130	[34.5 gpm]
Pressure (bar)	250	[3,625 psi]
Speed at maximum pump capacity (mtr./min.)	3.1	[10 ft./min]

Control valves : 24V DC

Throughput variation: completely variable speed by use of oil flow determined by the revs of the motor or by various pumps. Pay attention to the diameter of the choke, [see chapter connecting the hydraulics](#).

Drive : use of the PTO/pump on the truck; an electro-hydraulic aggregate or a hydraulic aggregate with an external combustion engine.

Filter : pressure filter type: high-pressure 10 micron (part number 7372005).

Pressure piping : Ø 20 x 2 feed through 16 mm.

Return piping : Ø 25 x 2 feed through 20 mm.

Oil ISO VG 32 : Shell Tellus T32 or BP HL2-32 or ESSO Unavis 32 (or equivalent).

Only use biological oil after agreement by Cargo Floor

Biological oil : a biological oil of the type synthetic ester (HEES) can be used as standard with the Cargo Floor system. **We advise you not to use other types of biological oil.**

Oil temperature : max. 70 °C [158 °F]

Floor

Aluminium floor profiles:- profile length negotiable
 - profile width 156,8 [6.2"] in HD or XDHI applicable for this manual.
 - moving floor width standard 2.355 [92.7"] mm for an inner width of 2.500 mm [98.4"]

Extrusion alloy : high quality Aluminium-alloy, weldable, very wear-proof and tensile

Bearing : the aluminium floor profiles are borne by wear-free plastic bearing Cargo Twister WIDE 40/25 of Special WIDE bearing 40/25.

Guide bearing surface: the total bearing surface of the Cargo Twister WIDE 40/25 is 144 cm² [22.32 sq.inch]. Total bearing surface of each plastic bearing block is 60 cm² [6.4 sq.inch]. The total number of guides, which can be varied as required, determines the total guide surface area.

Under floor : steel as well as aluminium. The plastic bearing can be provided with rectangular tubes 40x25x2 [1.6"x1"x0.08"] or the plastic bearing block can be mounted directly on the under floor. Alternative is the alu u-profile with Snap On bearing block.

OPTIONS:

- Cargo Roller, HD, 6 wheels with bi-directional cleaning device, parts no. [5165003](#)
- Various protective covers:
For the control valve: rear, parts no. [7371051](#) / top, parts no. [7371054](#)
For the cylinders: underneath, parts no. [7371053](#) / rod side, parts no. [7371052](#)
- Toolbox, parts no. [6415106](#) and tools and parts “first aid”, parts no. [6415105](#)
- Variable stroke from 10 mm. to 200 mm. [0.5”to 8”]
- Solenoids 12 V or 220 V (24 V=standard)
- Floor width and length in consultation, can be any width required
- Aluminium [sealblocks](#) for floor profiles
- Completely smooth profiles are available for special products. Floor thickness 6 & 10 [0.24” & 0.39”] mm.
- [Protective roll-up cover](#);
- Wireless remote control with on/off and/or loading/unloading functions (parts no. [6104006](#));
- Stationary applications in all versions
- Extra plastic guides.
- Electro- / hydraulic power packs
- Diesel hydraulic power packs
- Hot dip galvanised sub frame

MAINTENANCE INSTRUCTIONS

When handing over the trailer to the end user always give an extended instruction with regards to operation, maintenance and use of the Cargo Floor system. At the handing over always give a user manual. When works require turning on the floor you should take care of that the floor can be shut down immediately at any time. Places where clamping/clasping of body parts is possible may not be approached when the system is moving.

For more detailed explanation of the execution of various works we would like to refer you to our website:

www.cargofloor.com

Downloads

Check for the end user after receipt of the new trailer:

Check the join between the aluminium floor profiles and the Cargo Floor system. You do this by placing your finger half on the bolt and half on the floor profile when the floor is operating. If you feel movement in the bolt connection then you need to check the moving crossmember of the loose profile if it is slanted. If it is all the profiles of the same group will need to have their bolts replaced. If it is not slanted then only the bolts of the loose profile need to be replaced. Every zined hole needs to be cleaned, the thread of the new bolts need to be fitted with Loctite and then the bolts can be mounted. (Do not simply just tighten the bolts, the Loctite connection will be broken.)

Check this a couple of days after receipt of the trailer, after 10 loads / unloads and after one month.

Specifications of the screws:

M12 x 30 countersunk screws with hexagon socket, class 10.9, galvanized. DIN 7991 (Dacromet).

The torque is 100 – 140 Nm [72 – 105 lbf.ft.].

Regular checks for the end-user:

To ensure that your Cargo Floor system operates reliably and has a long life, it is important that you regularly perform careful checks on the following aspects:

- The quality of the oil; this must be cleaned regularly (check every ½ year);
- Replace the filter element every year;
- Change the oil every 2 years, or more frequently if required;
- The level of oil in the tank. In order to prevent heat developing it is required to have at least 100 liters [26 gallons] of oil in the tank. Out of practical experience (high flow, frequently loading and unloading) we advise you to have at least 150 litres [40 gallons] of oil available. Use a good quality, hydraulic oil in accordance with the ISO VG 32 [directives].

Check and, if necessary clean the following components:

- Check the ducts and joints of all hydraulic components, and adjust if necessary!
- Oil tank: by taking the lid off the tank, you can remove any remains (condensation, dirt etc.) from the bottom.
- Return-/pressure filter: by removing the filter lid/ chamber you can check the filter element, or after one year replace it.
- Check the seal between the two fixated floor profiles and the moving profiles. If a margin exist in between, then adjust the fixated floor profiles, in order for the sealing to be optimal and leakage via the side walls is prevented.

This is all necessary to avoid internal wear (of the pump/cylinders etc., for example).

New filter parts are available at your system builder. For the right type we refer you to our “exploded views” which you can find on our website www.cargofloor.com

Downloads

We want to emphasize that the minimal costs of replacing dirty parts or oil do not match the costs and discomfort that can proceed out of this.

- Adjusting the threaded rod of the control valve;
It is important that the control valve is correctly adjusted and that the switchover moment occurs according to the procedures. [See chapter adjusting the threaded rod of the control valve.](#)

IMPORTANT INSTRUCTIONS

- Avoid letting dirt and water get into the hydraulic system when disconnecting the connectors or when topping up/cleaning the oil tank.
- Adjust the work speed when, for example, heavy massive products are being loaded or unloaded with which the system needs the maximum power ([see chapter technical specifications](#)), so as to avoid overloading.
- It is not permitted to exceed the maximum operational pressure ([see chapter technical specifications](#)).
- Avoid loading and unloading sharp objects such as glass without a protective roll-up cover mechanism. This causes unnecessary wear of the seal/floor profiles. If you would like to transport such materials safely, we advise you to use a protective roll-up cover mechanism.
- Never exceed the maximum number of strokes per minute when using the full stroke ([see chapter technical specifications](#)). A greater number of strokes causes enormous forces in the system and chassis, and causes a lot of heat to be generated in the hydraulic system.
- When loading and unloading packed goods it is important that a good equal weight distribution is realized on the floor. If this is not the case there is the possibility that the goods will not move. When using pallets, if necessary, place a wooden plank (of about 300x18x2350 mm [12"x 0.75"x92.5"]) multiplex underneath.

TROUBLESHOOTING

In the event of the failure of the Cargo Floor system to operate (in the correct manner) when used in accordance with the operating instructions carry out the following checks:

Malfunction system	Concerns part	Cause	Solution
1. Does not operate No oil flow control valve	PTO	Not switched on	Switch on PTO
	Quick coupling	Blockade	Check couplings / mount correctly
2. Does not operate There is oil flow control valve	Remote control	Emergency switch operated	De-activate emergency switch
	Solenoid valve GS02 on/off	Interruption wiring Interruption in coil	Activate emergency switch GS02 temporarily and/or repair power supply
	Pressure control valve	Polluted	Clean / replace, attention: do not open the pressure control valve in parts
	Operation plunger in the middle position	Flow <60 l/m [16 gpm] See chapter: choke	Increase pump number of revolutions Install another pump Adjust choke
		Hoses connected reversed	Check filter first, then connect pressure and return correctly.
	Plunger moves with difficulty due to molten seal	Replace seals operation plunger	
3. Starts immediately after switching on the PTO	Switch CF7	Switch movement blocked in the on position	Remove blockade
	GS02 on/of	Emergency control activated	Turn out the button, put yellow fork in-between
	Hoses connected reversed	Pressure and return hoses where swapped	Check filter first, then connect pressure and return correctly.
4. Individual movement is difficult and/or incorrect with a full trailer	Pressure control valve	Tipper valve	Turn tipper valve in correct position
		Pressure control valve pulling vehicle max pressure to low	Measure max. pressure/ adjust pulling vehicle
		Return oil has restrictions	Measure pressure M2, remove restrictions
	Capacity of the system is insufficient.	To much load	Unload part of load with crane
		Pollution between the Floor profiles	Clean
	Frost	Thaw	
5. Individual movement is incorrect when unloading With a full and empty trailer	Valve in cylinder head 1 or 2	Pollution prevents a good connection	Remove pollution
		Broken valve spring	Replace spring
	Valve seat in cylinder head 1 or 2	Valve seat has loosened	*Replace / fasten valve seat
	Common rail cylinder rod side	Stop in the common rail has loosened	Fasten stop / replace common rail
		Common rail mounted the wrong way around	Mount common rail correctly

* Contact us for the right repair advice.

TROUBLESHOOTING

6. Switching is difficult or goes not at all. 3 Cylinders are fully retracted or fully out.	a. Threaded rod	Adjustment incorrect	Adjust correctly, attention: determine cause. See: b. and c.
		Switching spring broken	Replace spring, attention: determine cause. See: b. and c..
	b. Switching plunjer	Stroke > 12 mm. [0.5"] -> threaded rod loose, spacer loose	Screw in Threaded rod / bolt fully.
	c. Moving cross member	Slanting caused by loose profiles	*Replace screws and provide them with a thread locking product and check the rod bearing.
	d. Switching choke	Polluted	* Clean choke
7. Floor unloads when choosing loading and unloading	Solenoid valve G02 loading / unloading	Interruption wiring Interruption in coil	Activate emergency switch GS02 temporarily and/or repair power supply
8. Floor loads when choosing loading and unloading	Solenoid valve G02 loading / unloading	Emergency control G02 is activated	De-activate emergency control
9. Other malfunctions	Please contact your trailer builder or Cargo Floor, keep the system number at hand.		

* Contact us for the right repair advice.

GUARANTEE CONDITIONS

Guarantee shall only be given with the prior consent of Cargo Floor B.V.! With guarantee requests always fill in and send a guarantee request form to Cargo Floor B.V. beforehand. You can fill in a request for guarantee simply on our website: www.cargofloor.com

The guarantee conditions, as specified in the most recent "Metaalunie" conditions, filed with the registrar of the District Court of Rotterdam, are applicable in unabbreviated form. On request available.

A short extract of these conditions follows:

A guarantee period of 12 months (starting directly after installation) applies for all Cargo Floor system materials supplied by us. In the case of malfunction and/or manufacturing faults we are only responsible for the costless supply of replacement parts, if:

- The Cargo Floor system is installed by your trailer builder according to our installation procedures.
- Our maintenance and control procedures have been followed.
- In the case of a malfunction, the system builder, or Cargo Floor have been informed

The following components are not covered by the guarantee:

- Malfunction of equipment, or caused by equipment, which was not supplied by Cargo Floor.
- Malfunction caused by the use of dirty oil, or oil of the wrong type.
- Malfunction caused by overheated oil, T. max. ≤ 70 °C [158 °F]
- Malfunction caused by overloading or injudicious use.
- Malfunction caused by repair work, which is carried out by third parties.
- Filter elements and components, which are subject to wear-and-tear.
- Defects in electrical components due to incorrect connection and/or incorrect voltage levels.
- Resulting damages

The guarantee is void if:

- The system is used for purposes, which have not been recommended by Cargo Floor.
- The Cargo Floor system has not constructed correctly by your trailer builder, insofar as this has a negative influence on the operation of the system.

CONTACT DATA

Postal and visiting address:

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Byte 14
7741 MK Coevorden
Nederland

Phone number: +31 524 593 900
E-mail: info@cargofloor.com
Website: www.cargofloor.com

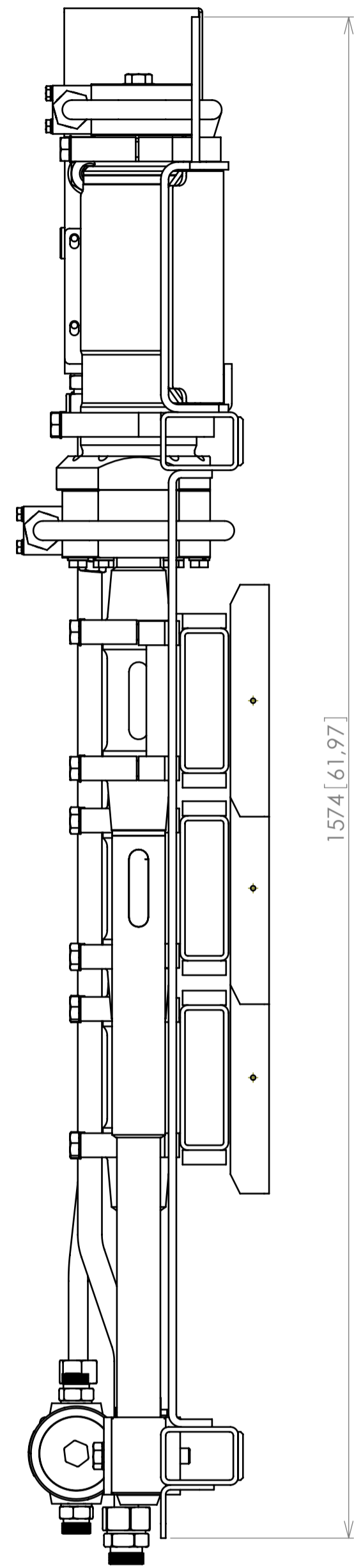
Order spare parts:

E-mail address: sales2@cargofloor.nl
DID number: +31 524 593 922

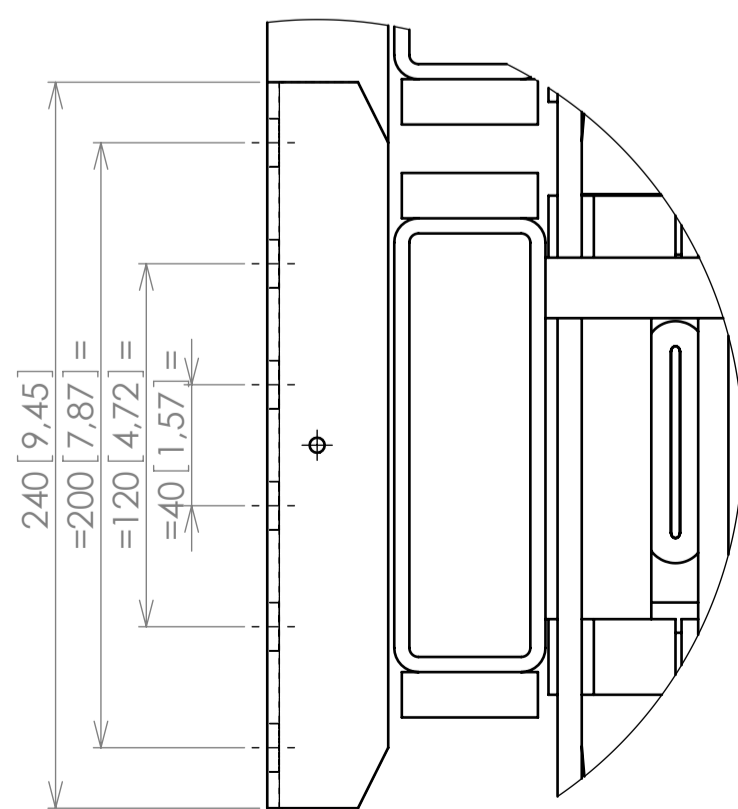
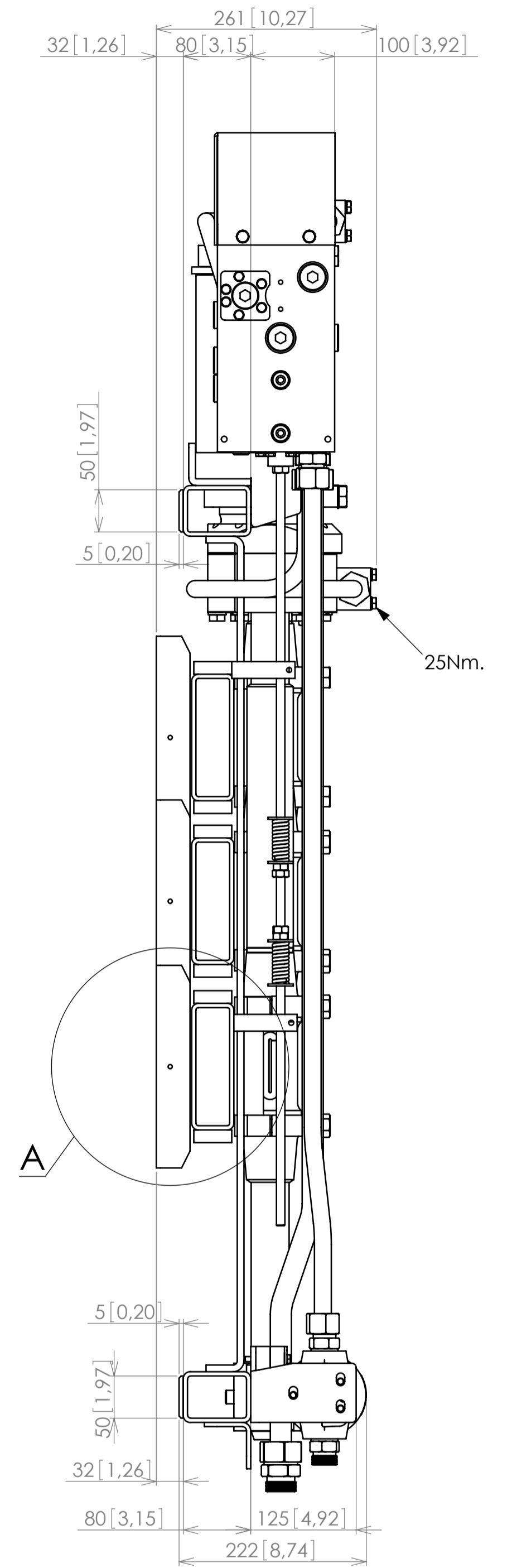
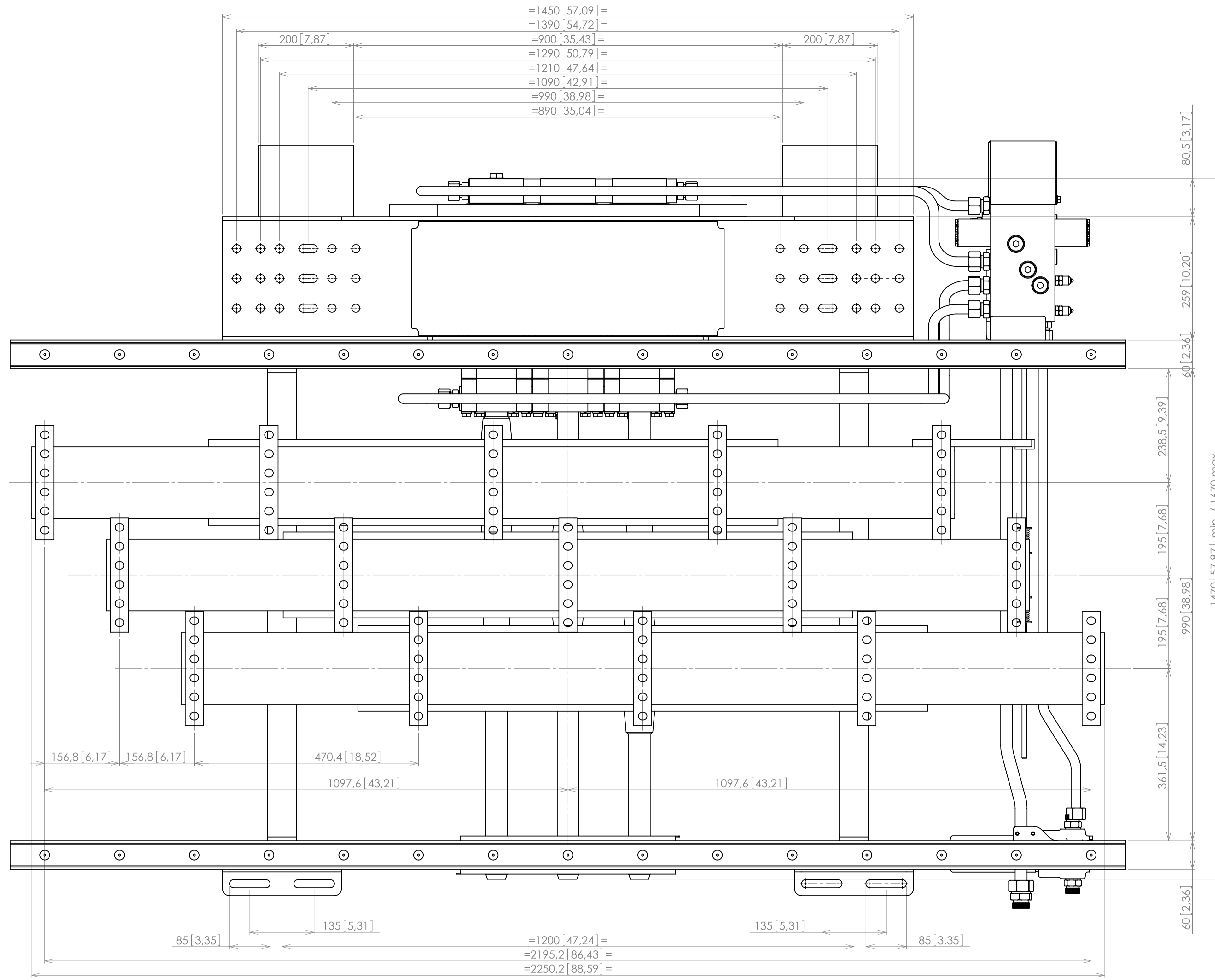
After Sales (technical questions and malfunctions)

E-mail address: as2@cargofloor.com
DID number: +31 524 593 991

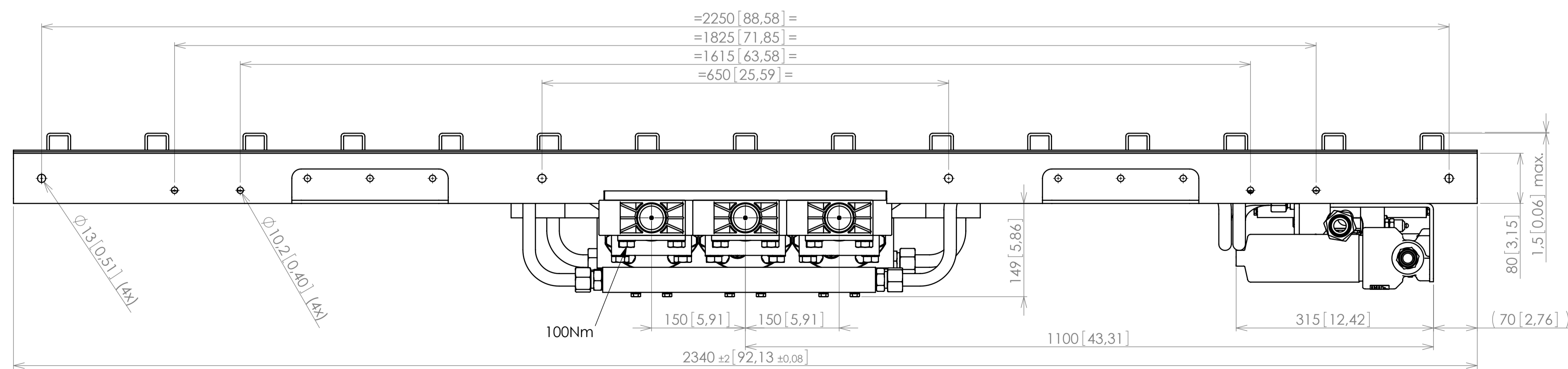
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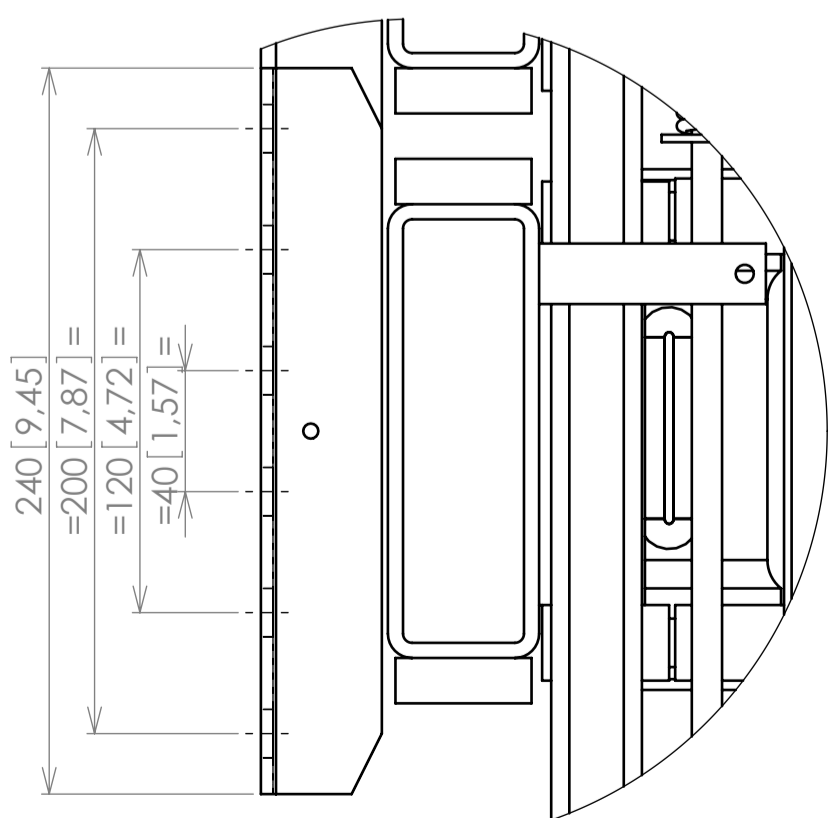
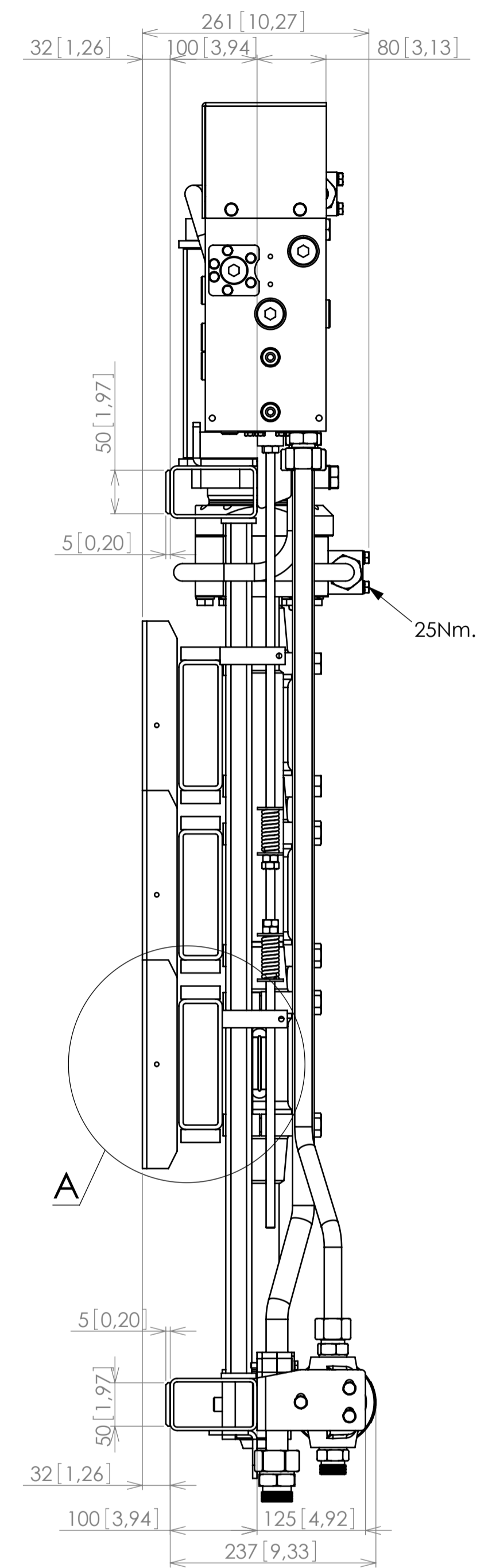
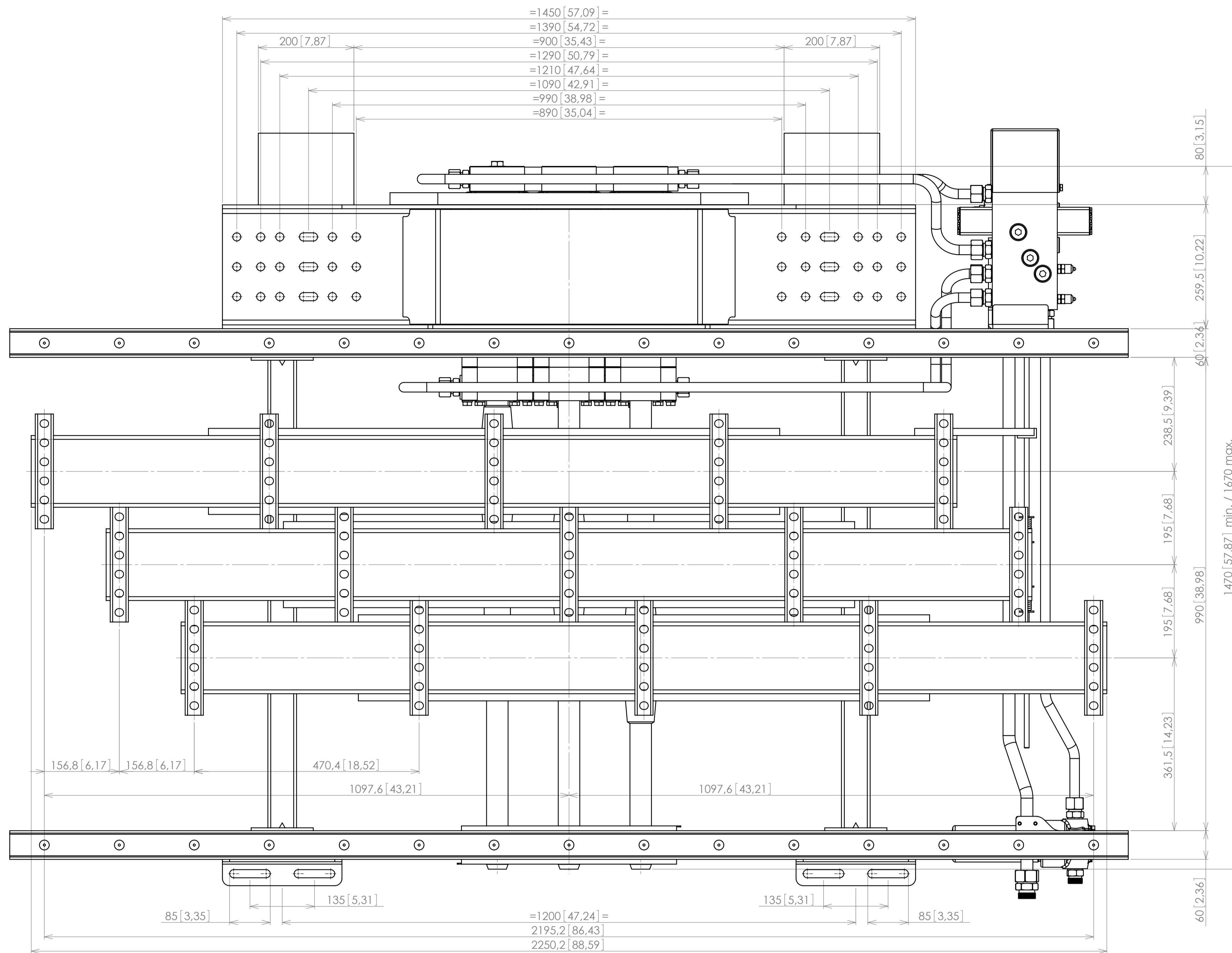
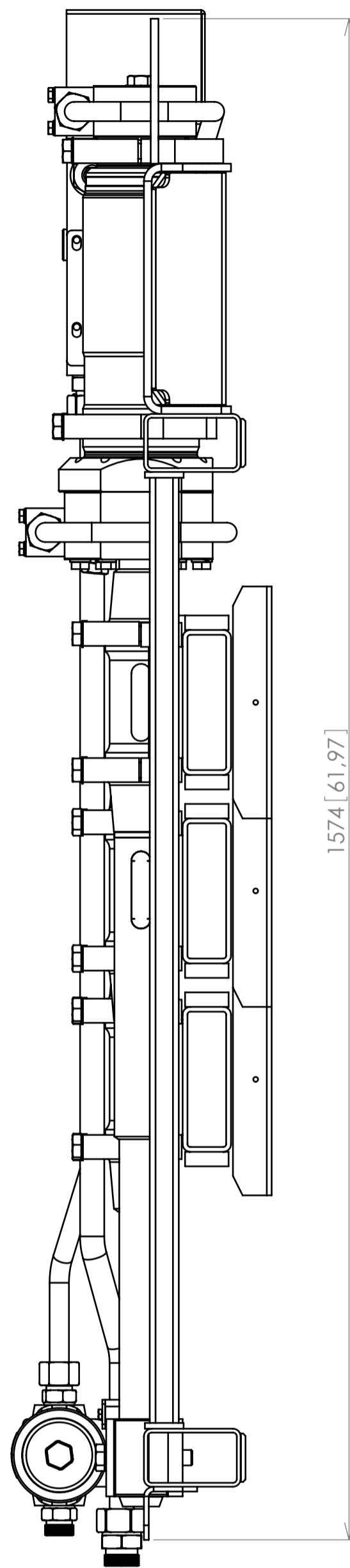
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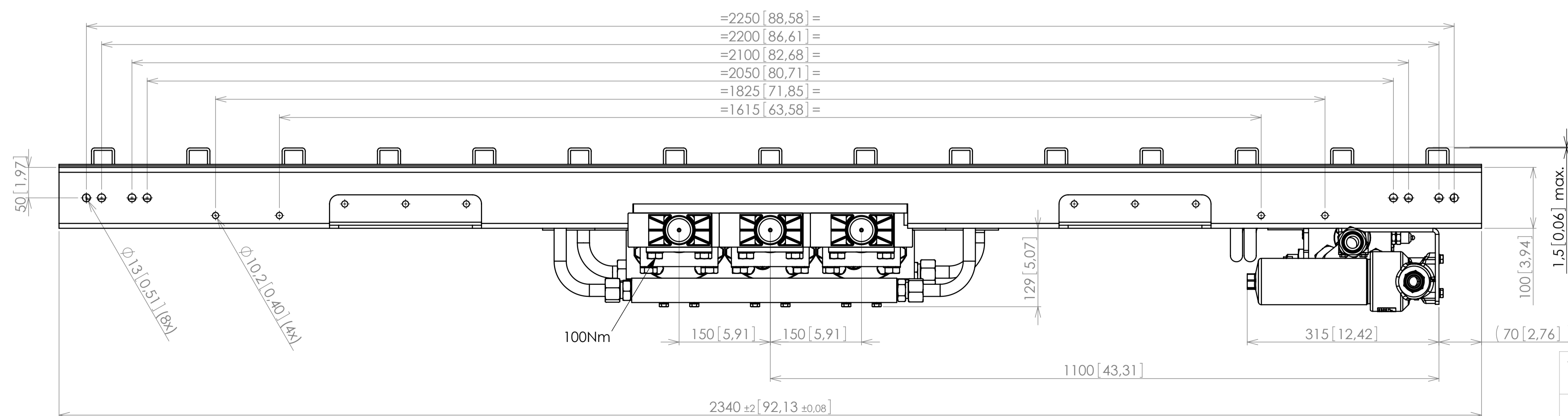
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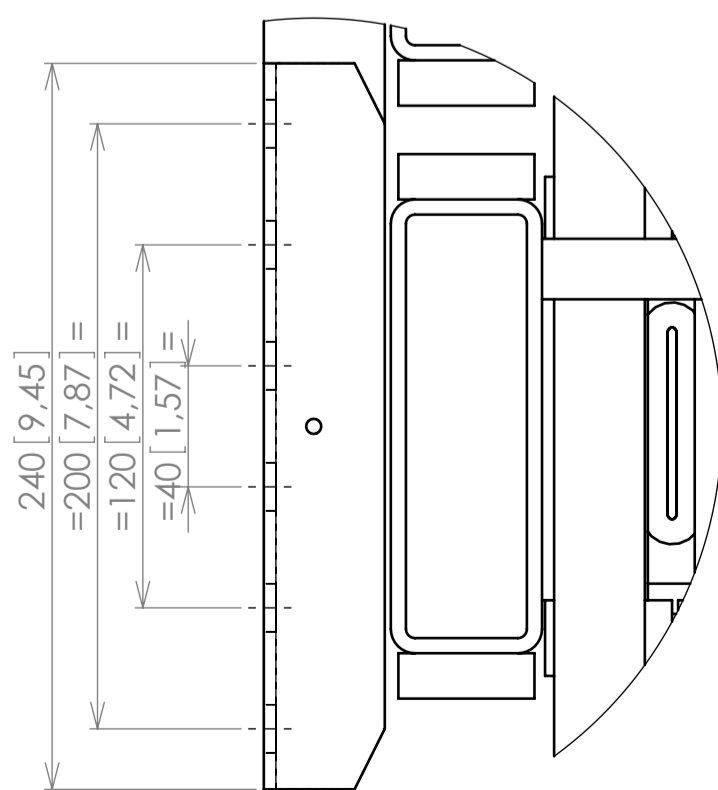
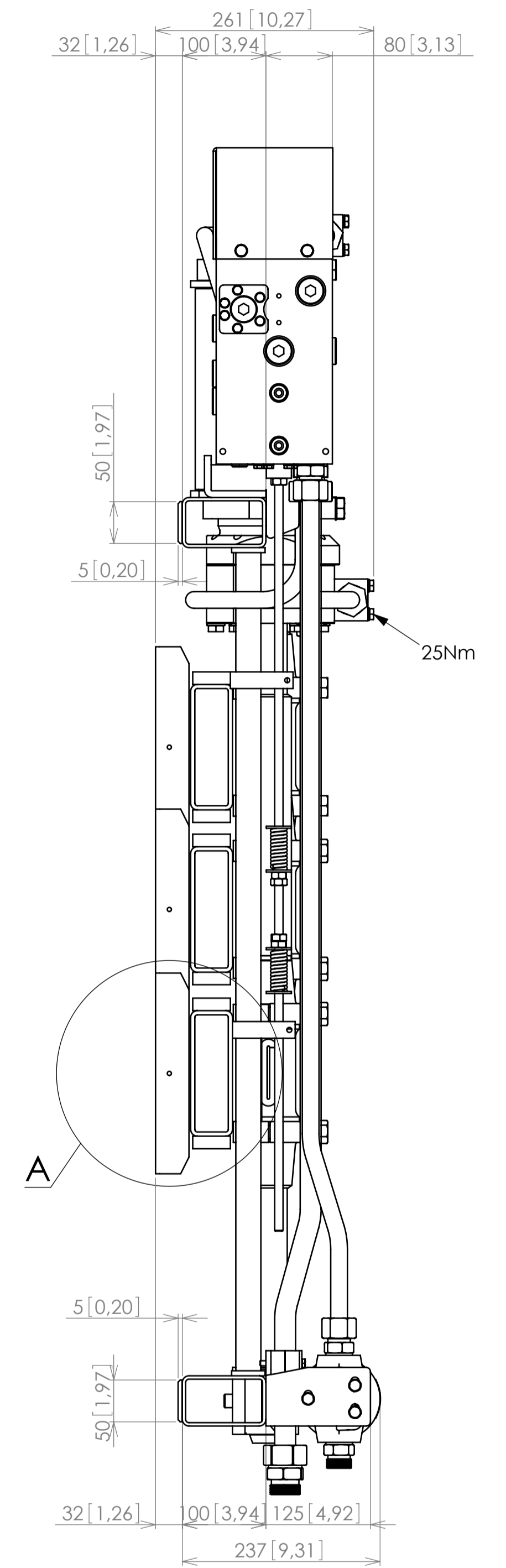
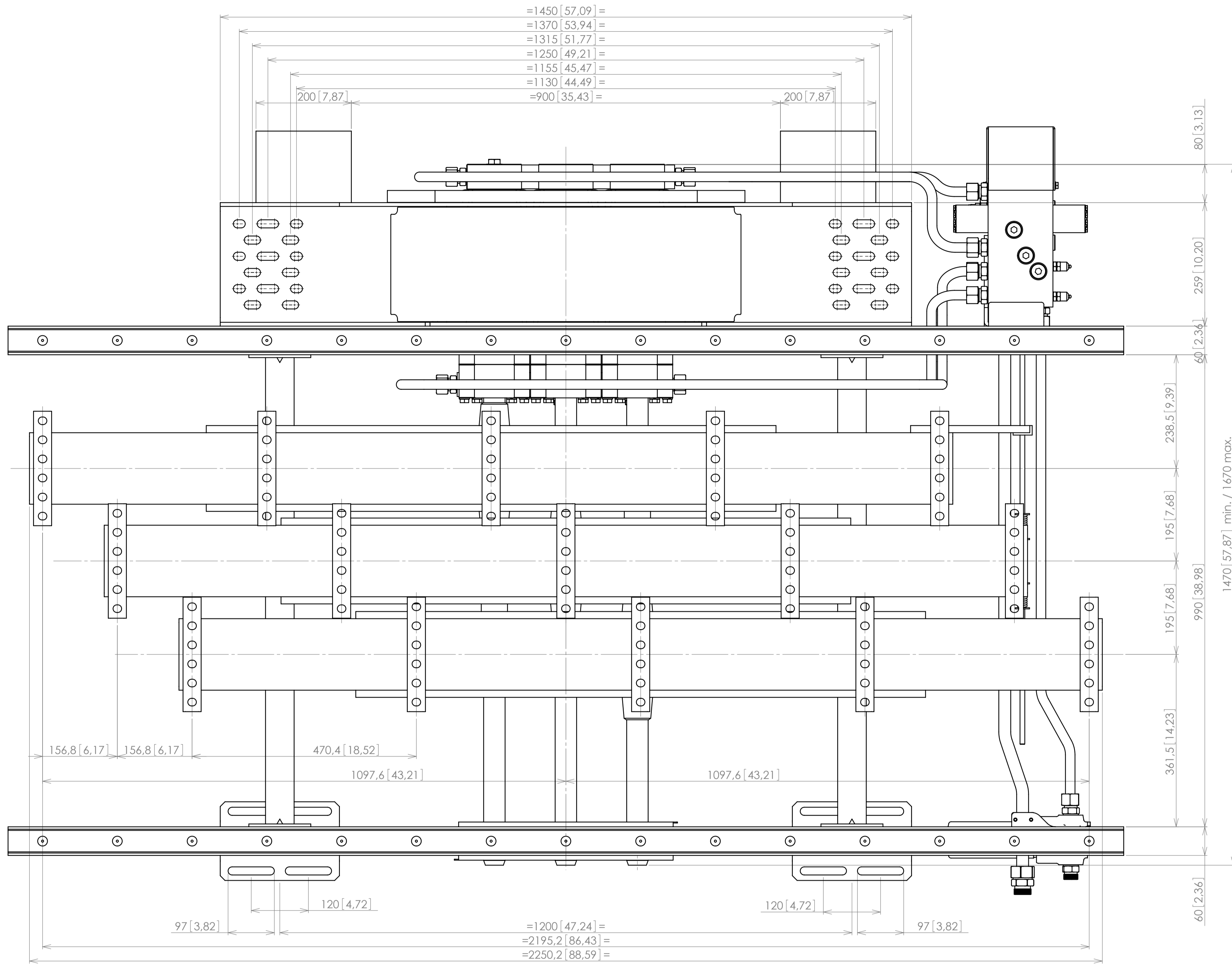
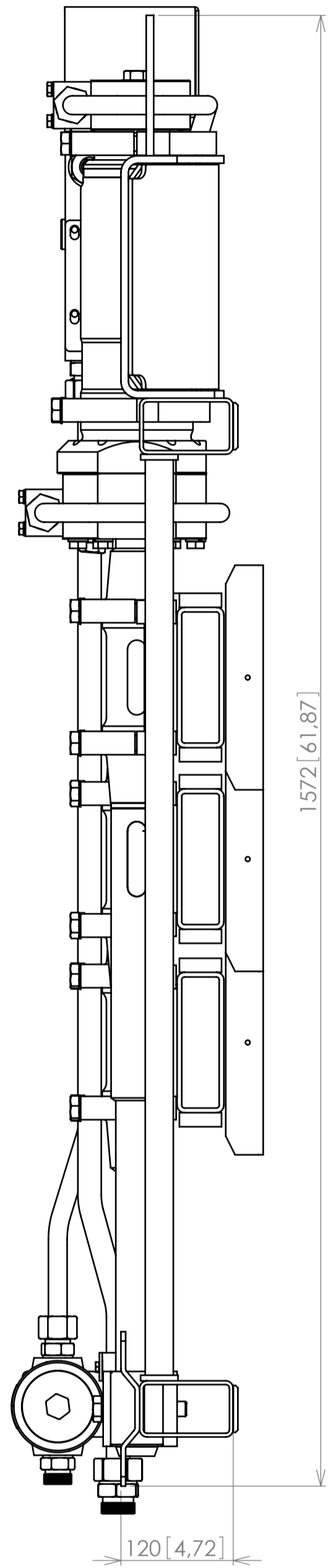
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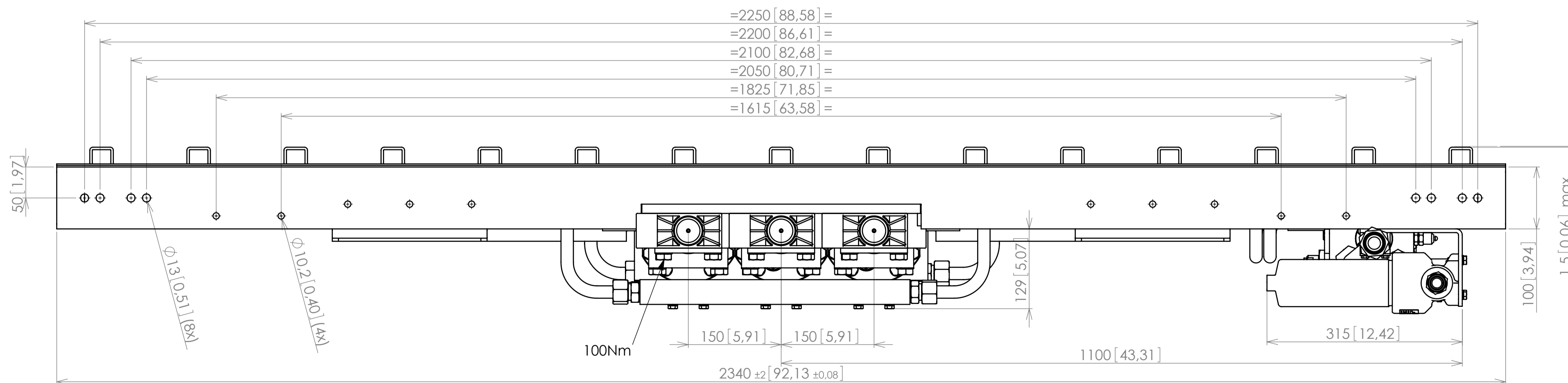
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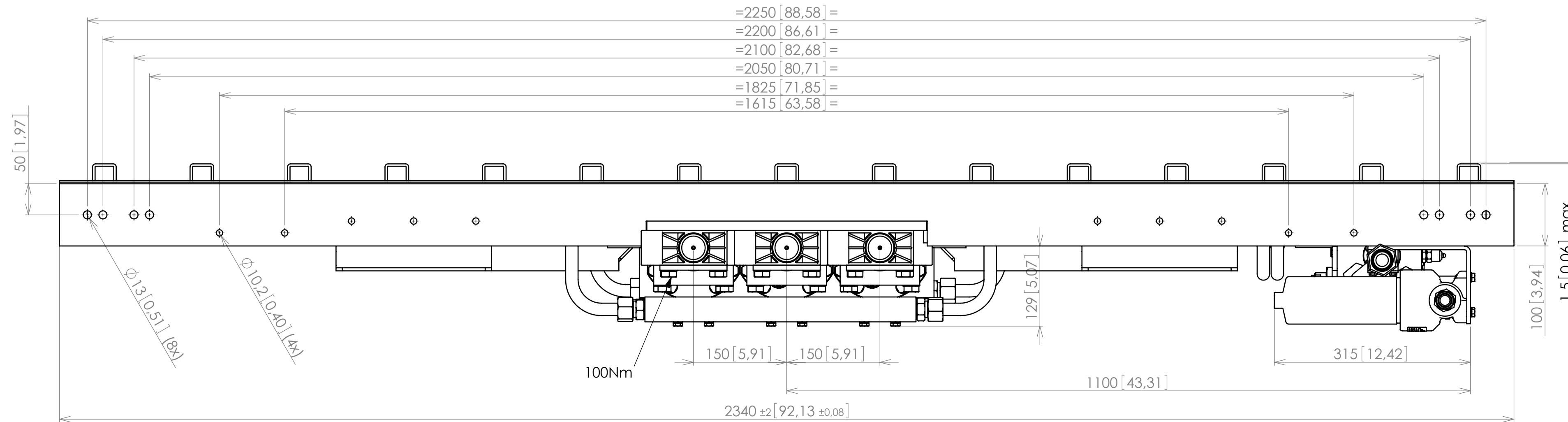
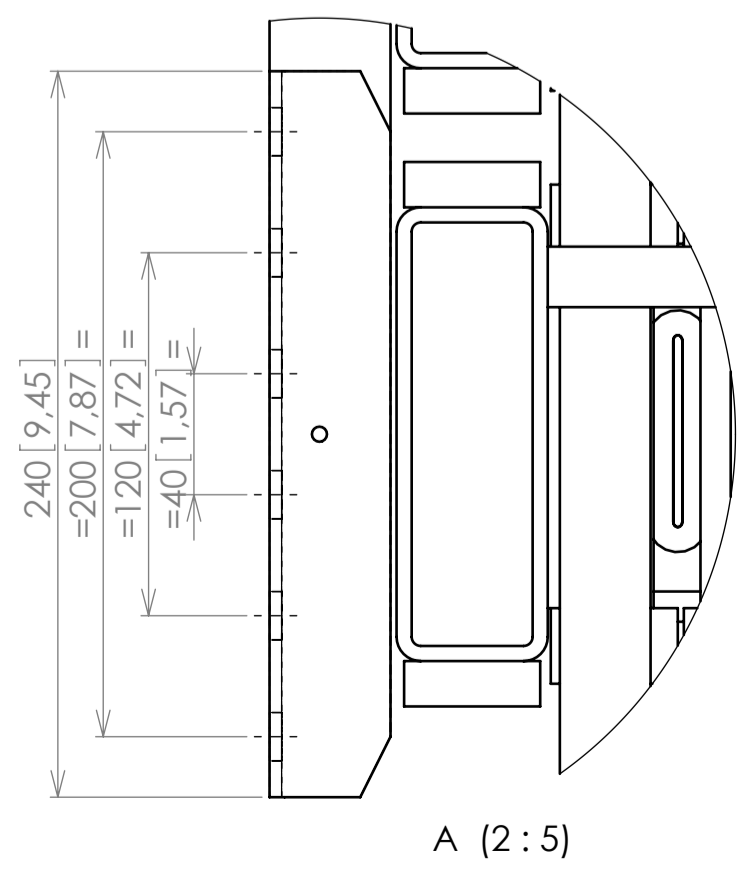
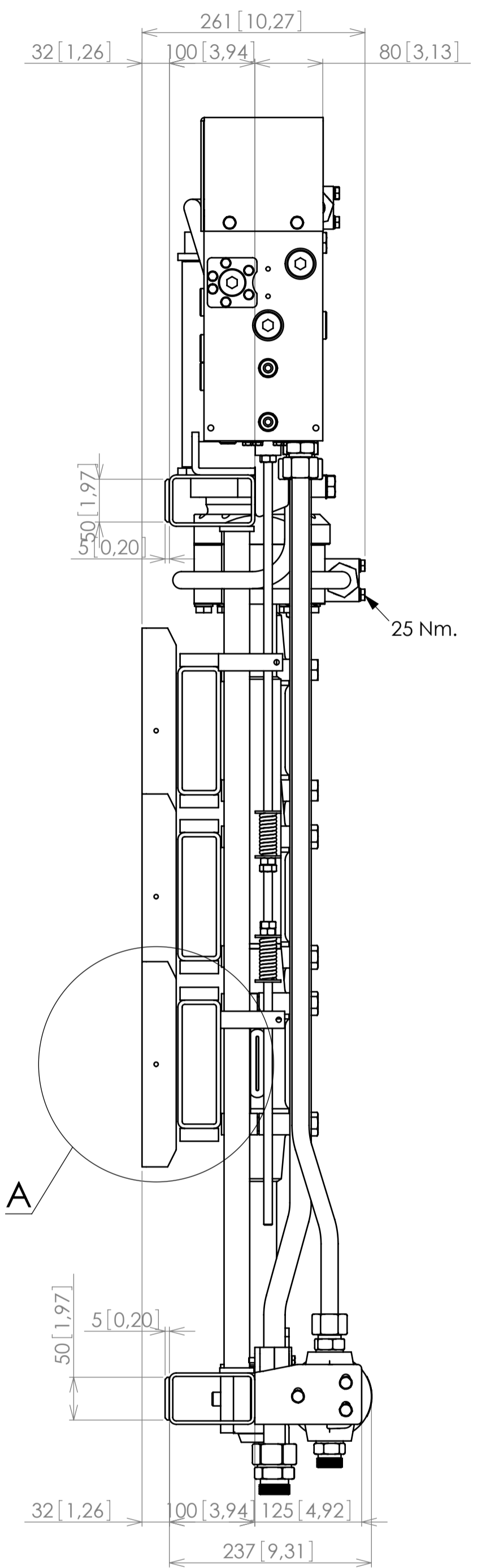
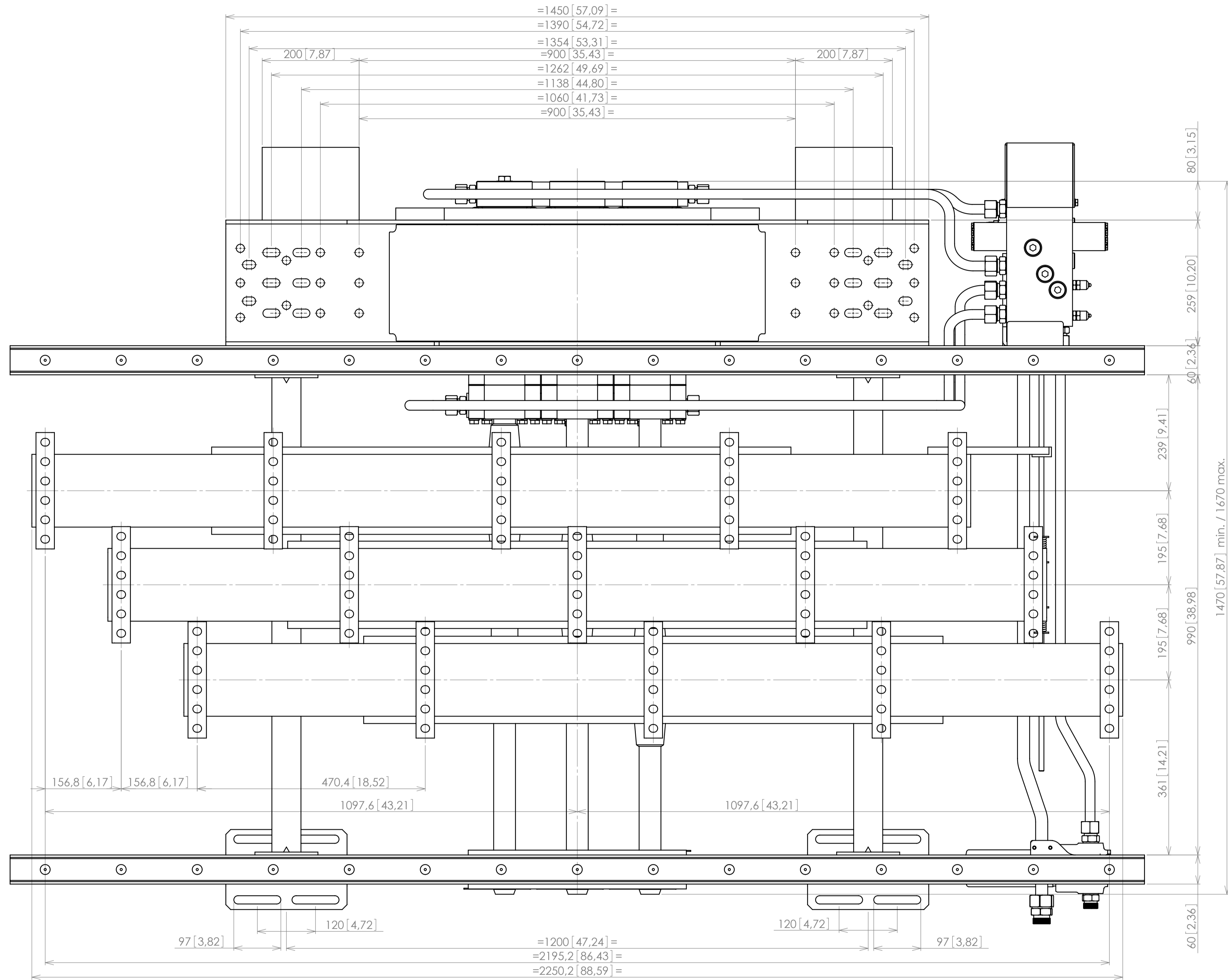
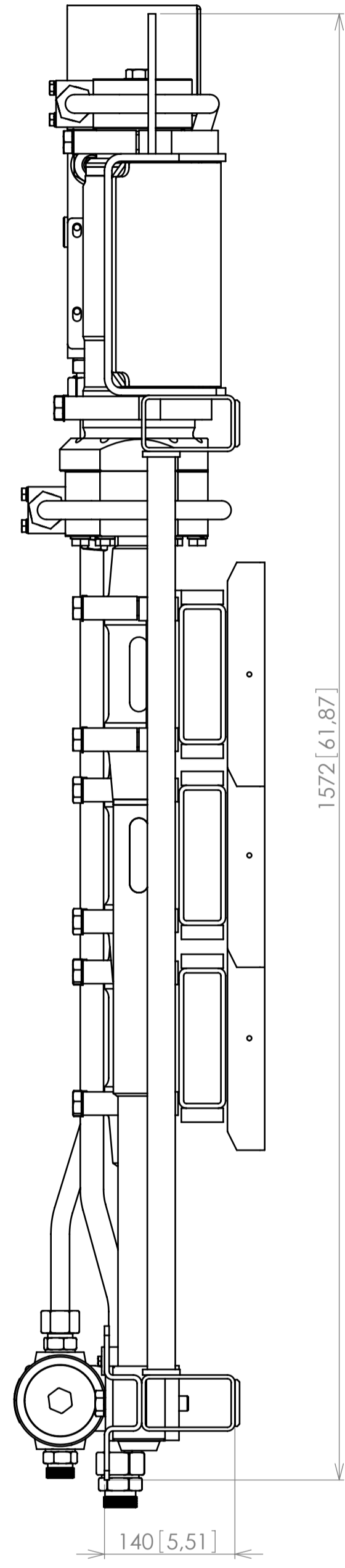
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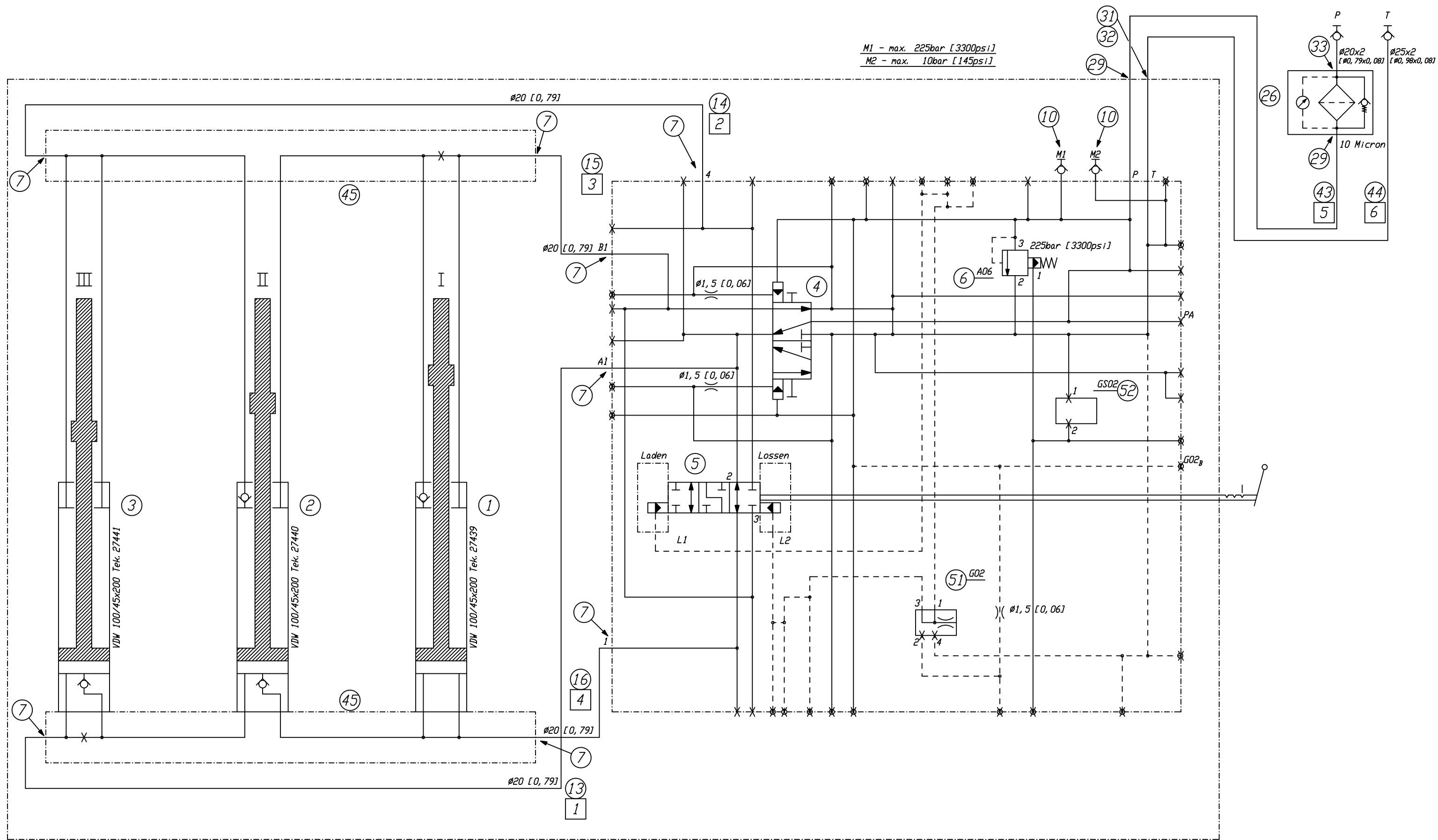


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 BOTTOM VIEW
 VUE DESSOUS

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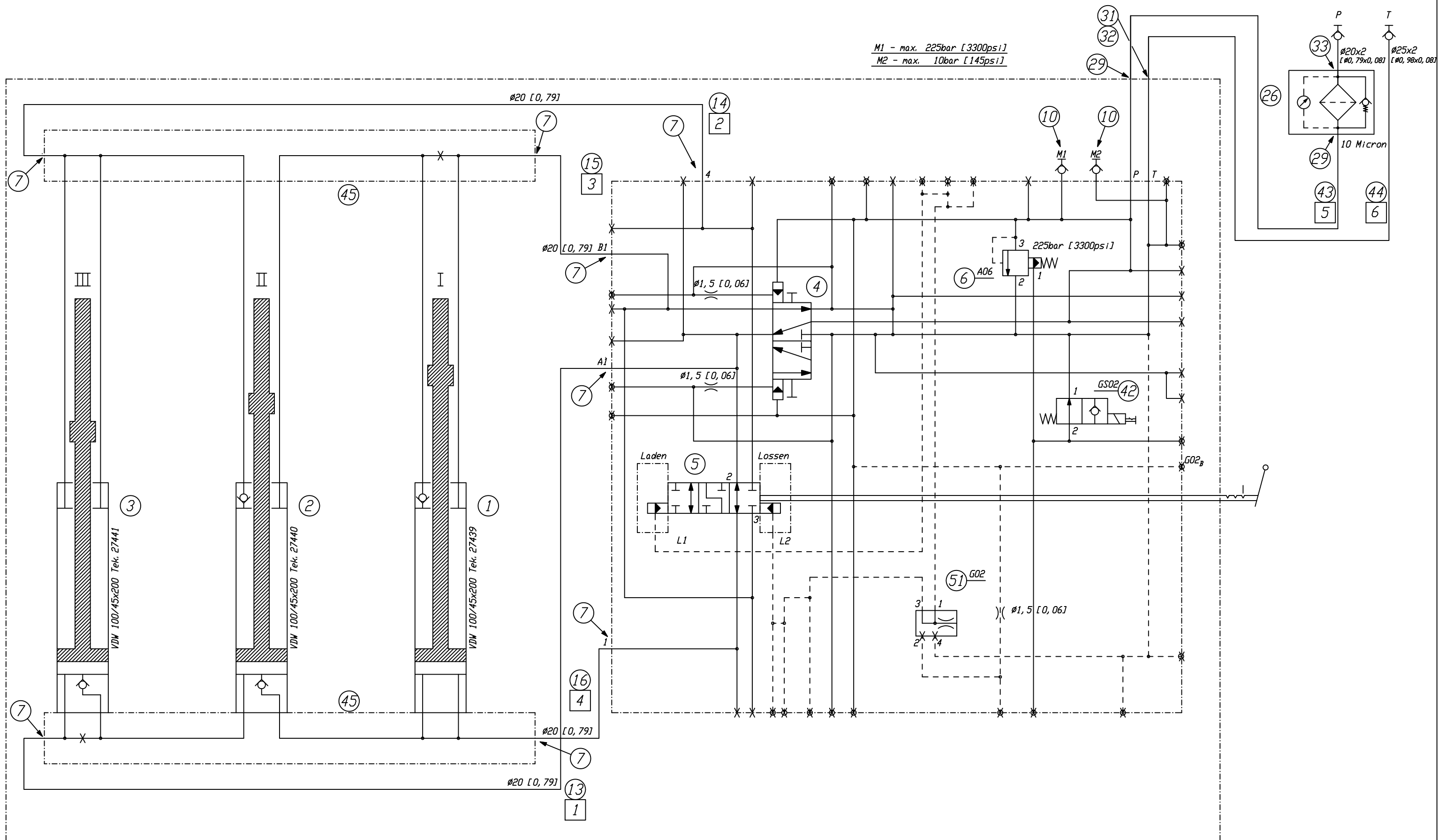
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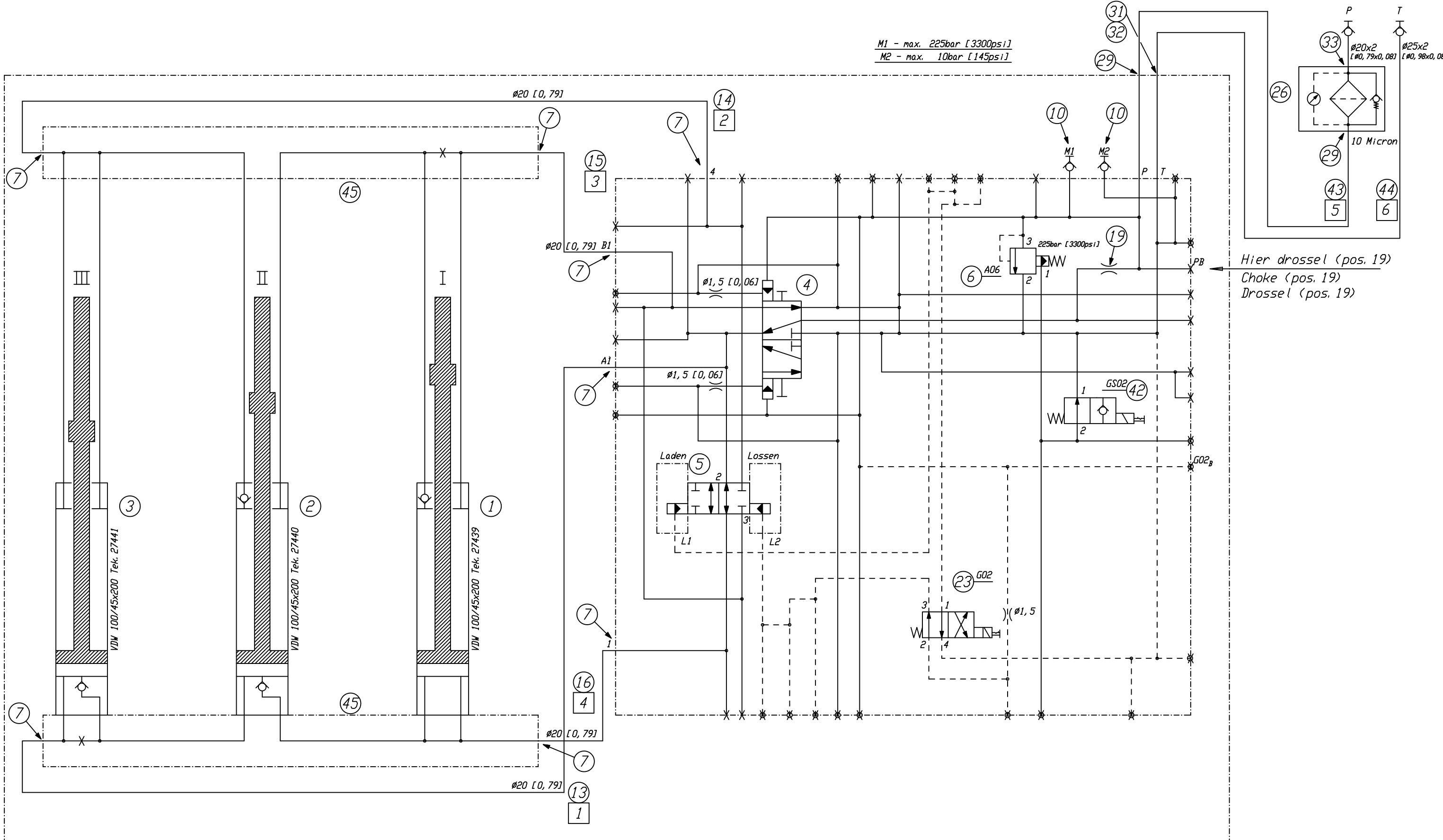
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RUCKSEITE CHASSIS
BACKSIDE FRAME
DERRIERE DE CHASSIS

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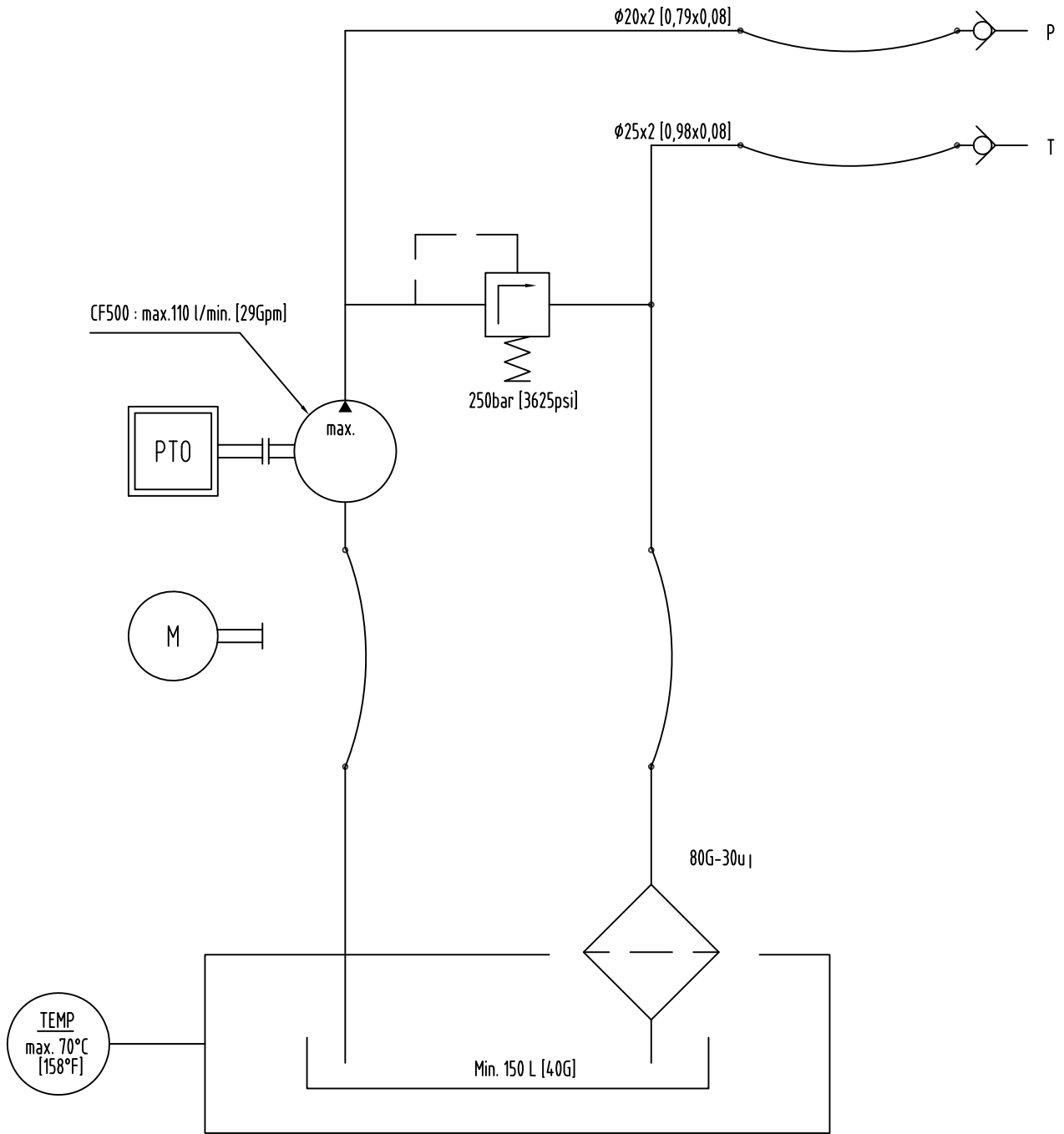
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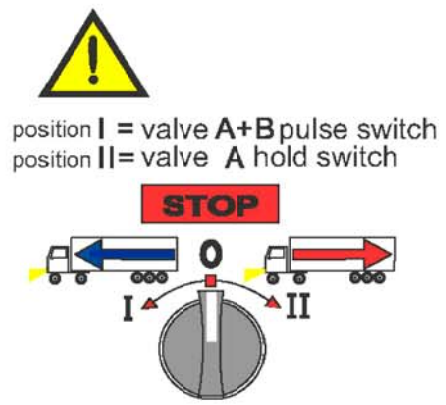
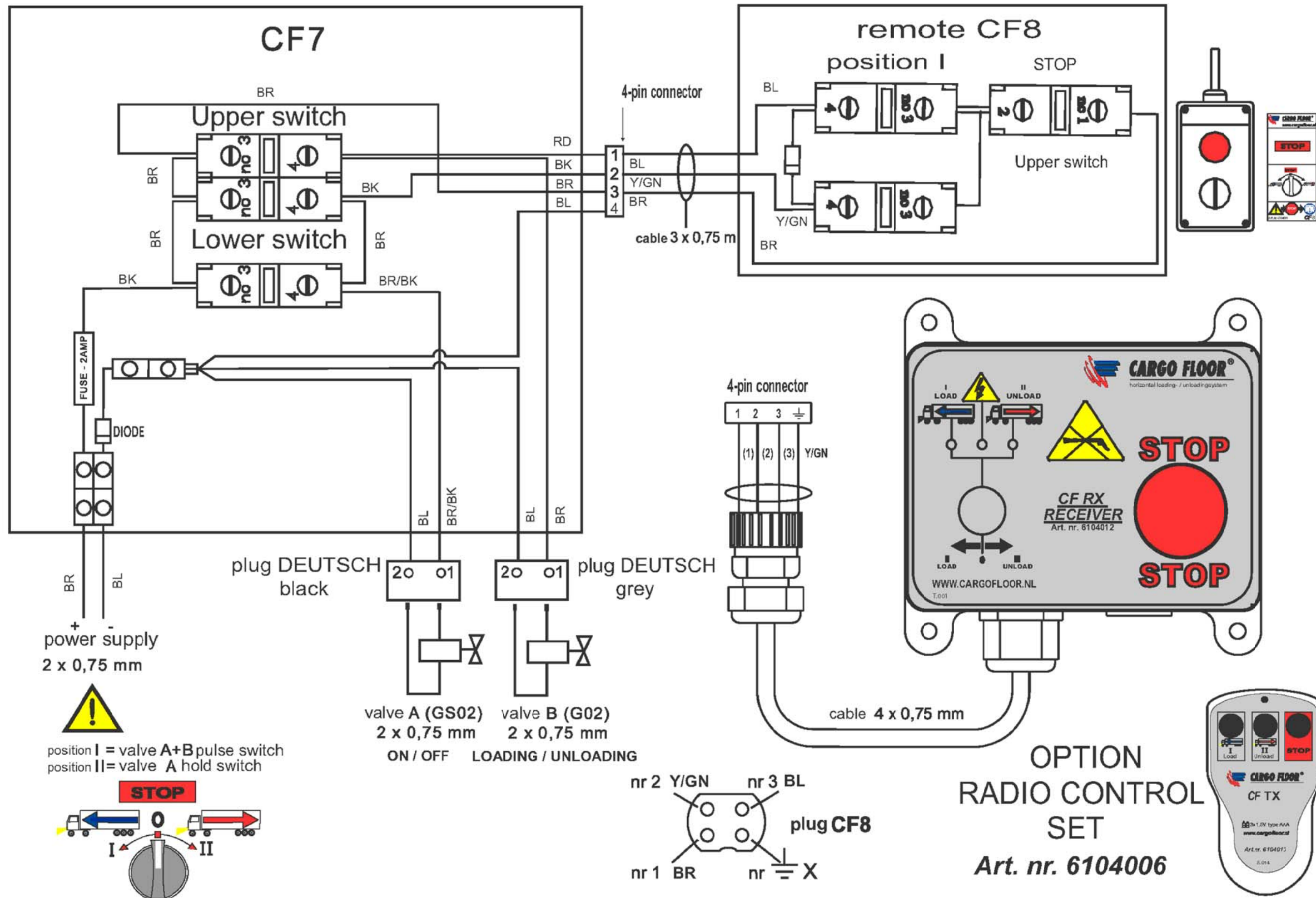
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Inbouwboek

CF500 SL-C

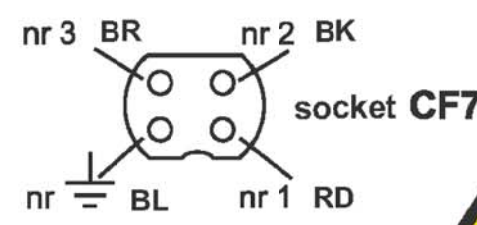
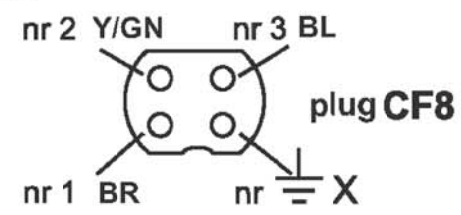


SUBJECT: Aansluiting / Connection / Anschlüsse	REV.: A	DATE: 05-10-12
	DRAWN: HZ	DIMENSIONS IN MM
	<small> Cargo Floor B.V. P.O. Box 271 NL-7740 AG Coevorden Phone: +31-524-593900 Fax: +31-524-593999 Internet: www.cargofloor.com E-mail: info@cargofloor.com </small>	
DRAWING NUMBER: Page H2		

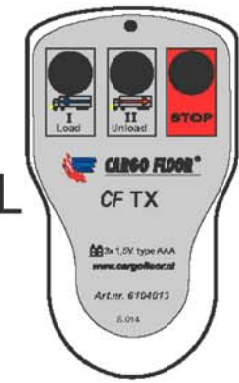
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valve A (GS02) 2 x 0,75 mm
valve B (G02) 2 x 0,75 mm
ON / OFF LOADING / UNLOADING



OPTION
RADIO CONTROL
SET
Art. nr. 6104006



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HORIZONTAL LOADING-/UNLOADINGSYSTEM
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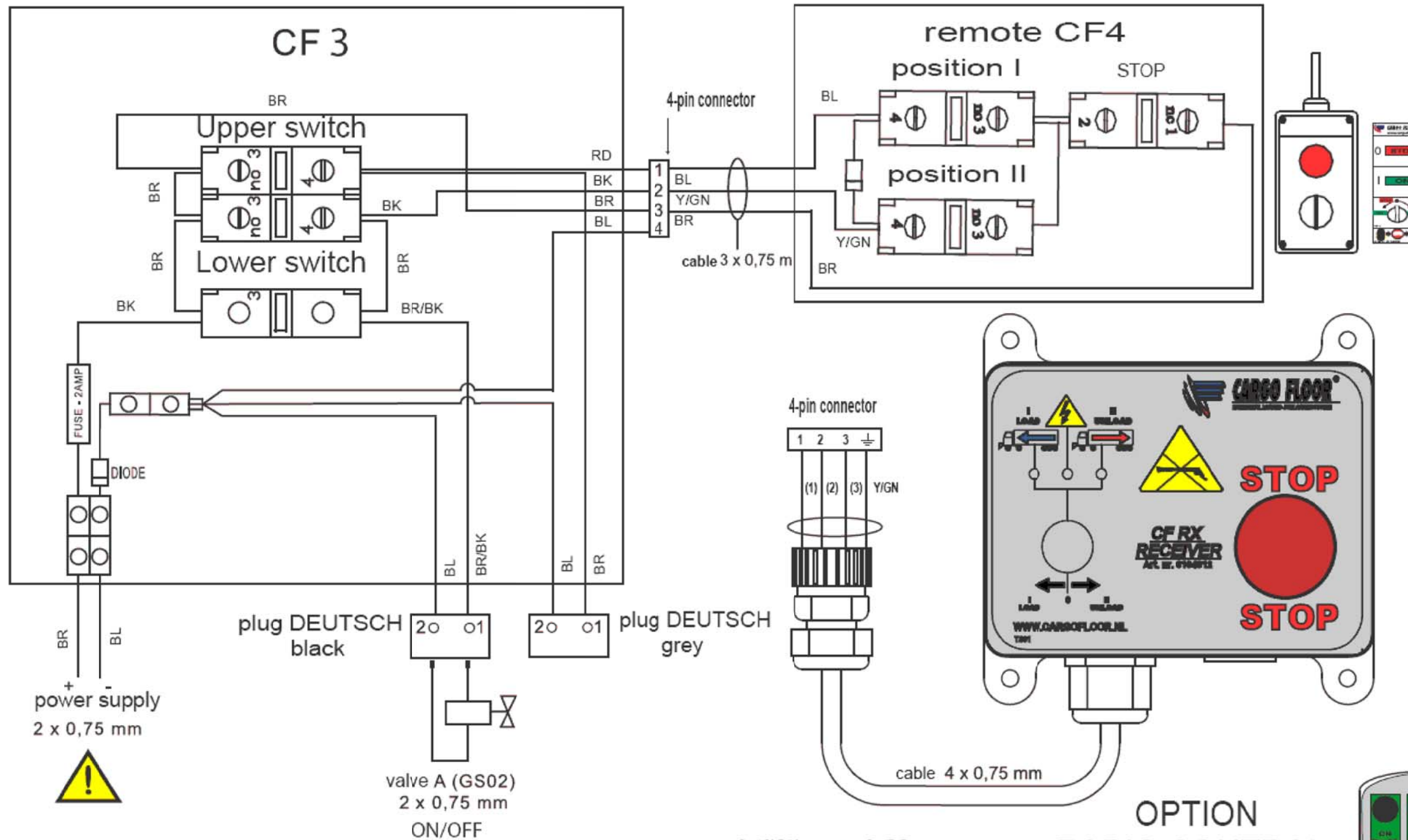
S.009-E.06-13

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PROJECT: CF500 SL-C	ORDER:		PAGE
SUBJECT: Electric drawing E	DATE: 12-09-12		...
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			Page E1

REV	DATE	CHANGES	MP	BY
A	01-07-13	Nieuw schema Ingevoegd		



power supply
2 x 0,75 mm

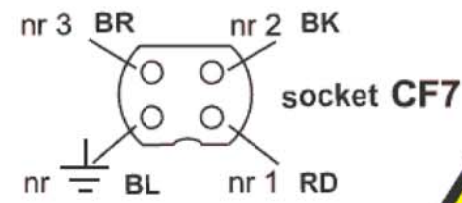
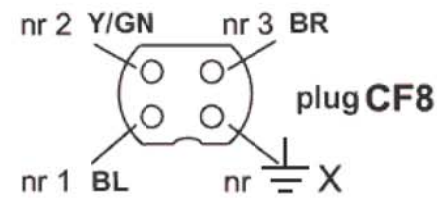
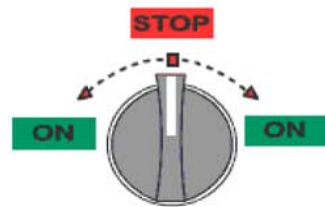


plug DEUTSCH
black

valve A (GS02)
2 x 0,75 mm
ON/OFF

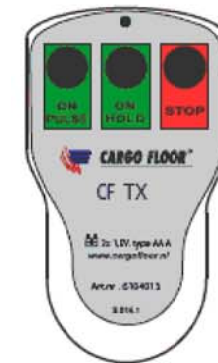
plug DEUTSCH
grey

cable 4 x 0,75 mm



OPTION
RADIO CONTROL
SET

Art. nr. 6104006



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S.009-B

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PROJECT:
CF500 SL-C
SUBJECT:
Electric drawing B

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ORDER: ...

DATE: 12-09-12

DRAWN: H.Z.

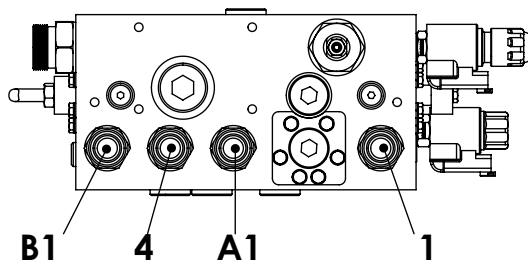
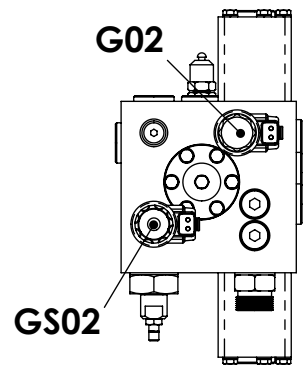
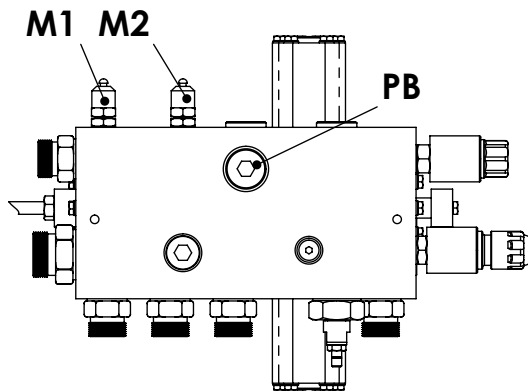
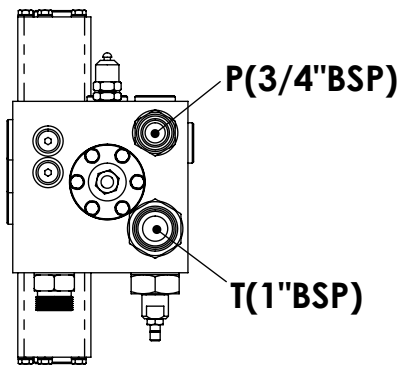
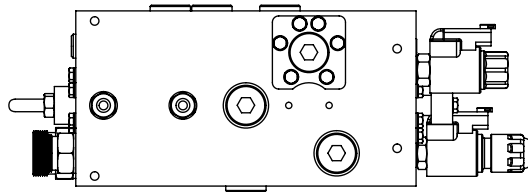
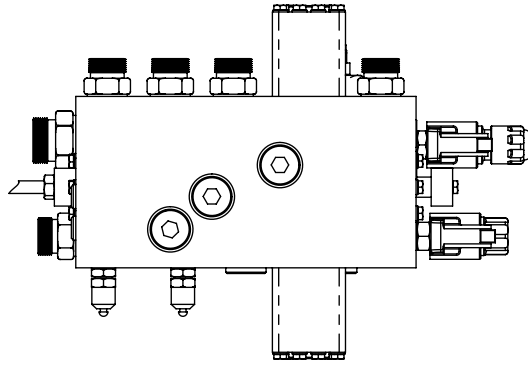
PAGE

...

DRAWING NUMBER :

Page E2

REV. DATE CHANGES BY



SUBJECT:

Control valve 02 "E" operation

REV.: B DIMENSIONS IN MM

DRAWN: H.Z. DATE: 12-09-12

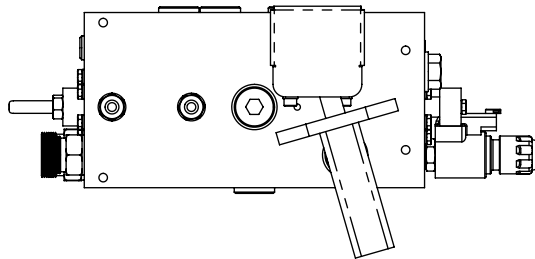
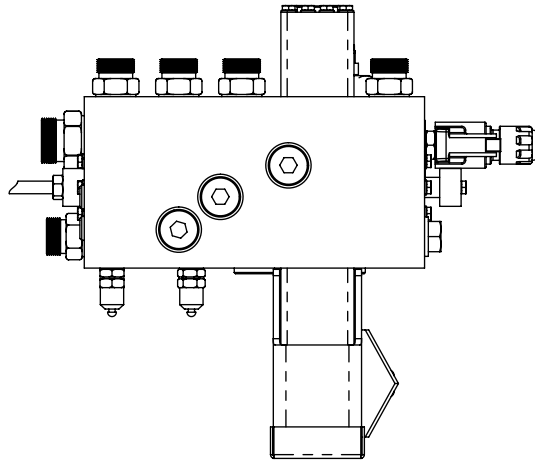
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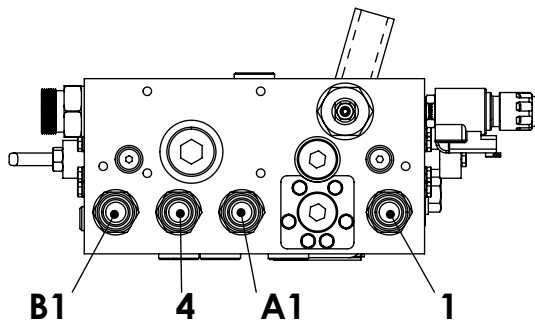
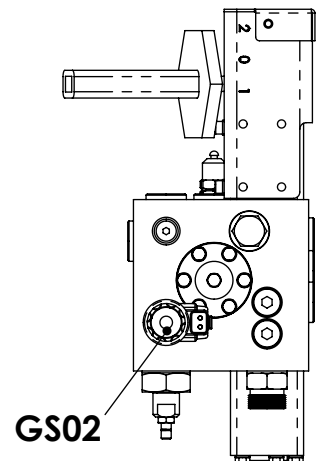
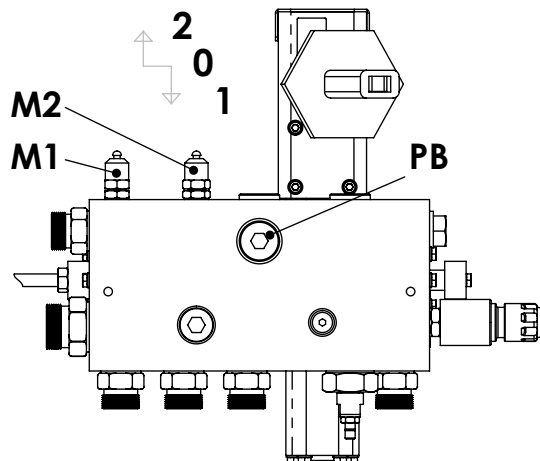
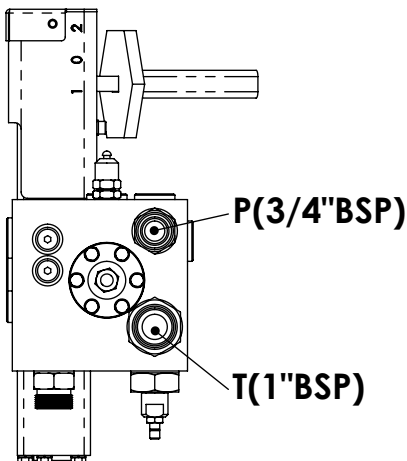
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Page BV1



2	<i>Laden, load, Beladen, Charger</i>
0	<i>Stop, Stop Halt, Arrêt</i>
1	<i>Lossen, Unload, Entladen, Décharger</i>



SUBJECT:

Control valve 02 "B" operation

REVISION: E DIMENSIONS IN MM

DRAWN: H.Z. DATE: 12-09-12



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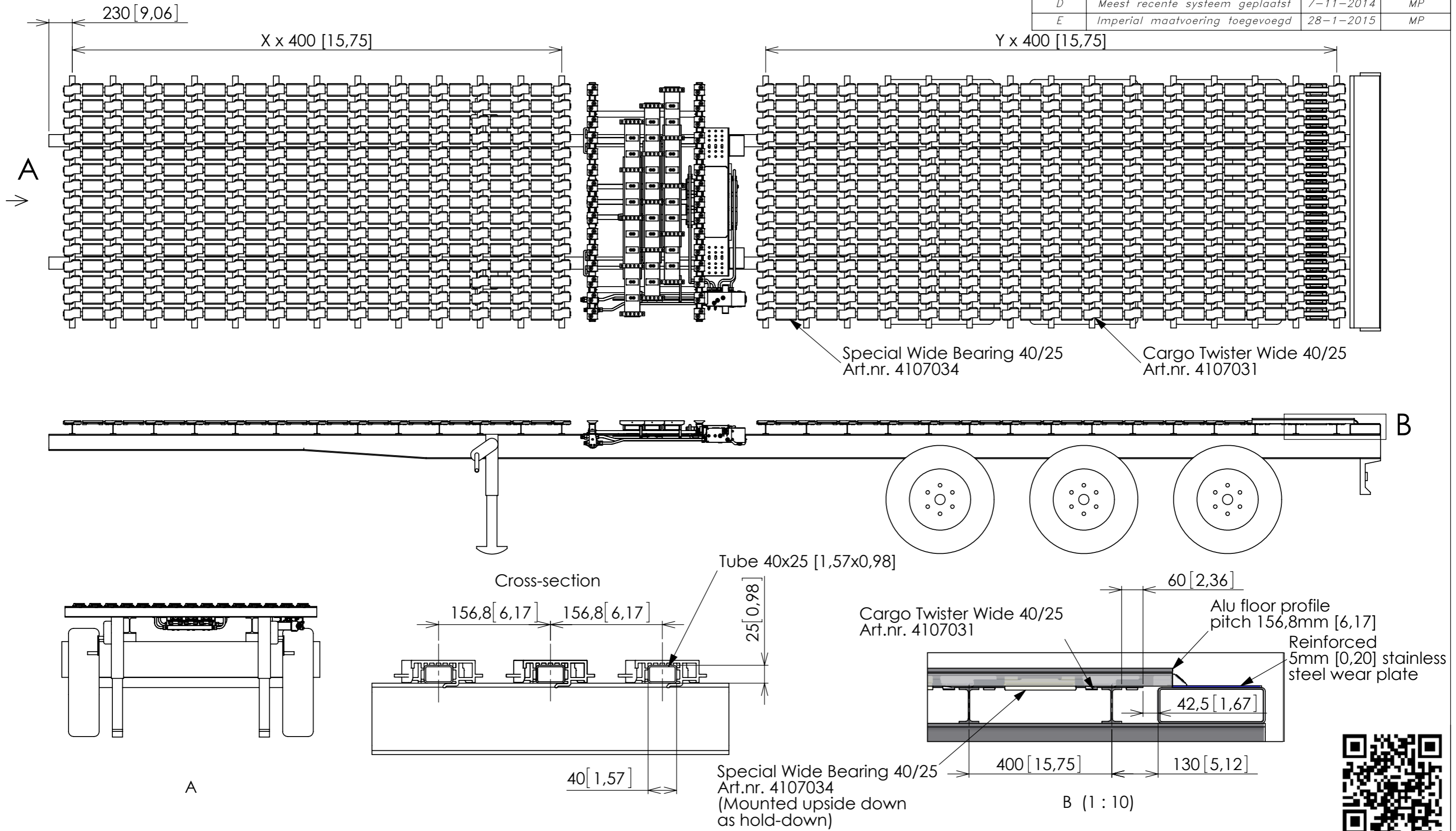
DRAWING NUMBER:

Page BV2

FOR INFORMATION ONLY !

Metric [Imperial]

REVISIONS			
REV.	DESCRIPTION	DATE	BY
A	Art.nrs. changed	20-2-2014	MP
B	Kader gewijzigd	26-6-2014	SK
C	Support-plates verwijderd	23-10-2014	MP
D	Meest recente systeem geplaatst	7-11-2014	MP
E	Imperial maatvoering toegevoegd	28-1-2015	MP



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Project: **Cargo Floor pitch 156,8mm**
 Subject: **Overview - XHDI / HD**

Date: 26-6-2014
 Drawn: SK

Drw. nr.: **V140207-CF-200**

A3

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