

Important recommendations and guidelines

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: [CargoFloor.com](https://www.cargofloor.com), [download](#).

- 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!
Option: your Cargo Floor system could be equipped with an oil temperature safety switch which will switch off the system automatically when it starts to overheat.
- 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 your 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.

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.

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

This set contains a complete replacement set in order to replace a control valve 01 with a control valve 02.

⚠ Attention! If you have a B controlled system please contact Cargo Floor B.V.

SCOPE OF SUPPLY



Art.No.	Description	Amount
5156002	Commandlip 40x20mm (l=200mm)	2 pc
5348024	Mounting plate control valve 02 (convert control valve 01)	1 pc
5355003	Threaded rod complete (1000 mm. [39.4"])	1 pc
6401047	Wire + Deutsch connector G(S)02, length 300 mm	2 pc
7157005	Common rail A complete	1 pc
70092020	Regulate square coupling 20 x 20 mm.	4 pc
7050120020	Hydraulic hose 20mm 2x straight (1200mm)	1 pc
7050120025	Hydraulic hose 25mm 2x straight (1200mm)	1 pc
7052080020	Hydraulic hose 20mm 1x straight, 1x elbow (800mm)	4 pc
70043/420	Straight screw-in coupling 3/4" x 20 mm.	2 pc
7370017	Control valve 02 E-controlled (complete)	
Consists of:		
6404038	Control valve mounting kit 02 E-control	1 pc
7004125	Straight screw-in coupling 1" x 25 mm	1 pc
7154011	Seal cap for pressure safety valve	1 pc
7370018	Control valve 02 E-operation	1 pc
7370105	Choke blind (control valve 02)	1 pc
70043/420	Straight screw-in coupling 3/4" x 20 mm.	5 pc
7371051.1	Cover for control valve 02	1 pc
7371051.2	Lid for cover control valve 02	1 pc

Important information

- The guarantee is only valid if Cargo Floor B.V. has given permission in advance!
- The pump and electrical installation must always be switched off, in addition the tubes and/or pipes between the pump and the Cargo Floor drive unit must be disconnected;
- After fitting, check the oil level;
- Check/replace the compressed air filter;

Warning!!!

Before starting all the cylinders need to be retracted, this in order to prevent damages of the piston rods in the stroke area of the cylinders. Such a damage will cause irreparable damages.

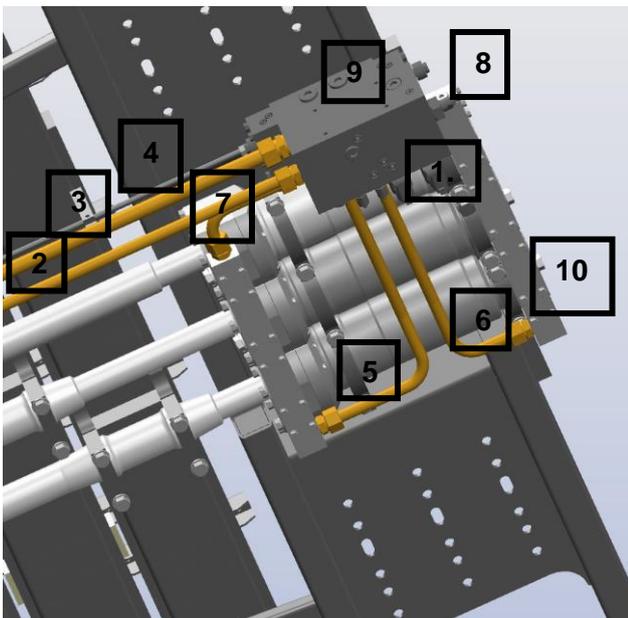
Tools required

- 2x Open-end spanners 10 (M6)
- 1x Open-end spanner 13 (M8)
- 2x Open-end spanners 17 (M10)
- 1x Open-end spanner 32
- 1x Open-end spanner 36
- 1x Open-end spanner 41
- 1x Open-end spanner 46
- Hammer
- Grinder
- Welding machine
- Trough
- Measuring tape
- Primer and paint

Demounting control valve 01

01. Mark the wires that run to the solenoids and remove the plugs from the solenoids GS02 on/off and the G02 loading/unloading. Place a container underneath the valve in order to collect the oil leaking.
02. First loosen the turnbuckles from the P pipe on the front side of the control valve and at the pressure filter. Take the P pipe away.
03. Next the T Pipe can be demounted by loosening the bolts of the pipe bracket and the two turnbuckles of the T pipe, then remove the T pipe.
04. Next you demount the threaded rod, this is done by removing the bolts out of the command lips and unfasten the contra nut from the switching plunger. Screw the threaded rod out of the switching plunger.
05. The next step is to remove pipe P5 from the side of the control valve and from the side of the common rail, remove the pipe completely. Following this step is the loosening of the turnbuckles from the pipe S5 on the side of the control valve and the common rail, also remove this pipe.
06. Unscrew the turnbuckle at the side of the control valve from pipe Q5 a little, until such a way that the pipe is able to turn. Unscrew the turnbuckle on the side of the common rail (in such a way that it can be fully unscrewed by hand in the near future).The pipe remains onto the valve block so it can be used as a "handle".
07. Unscrew the four bolts (4xM8) from the common rail connection on the bottom side. Attention: remove three bolts and let the last M8 remain somewhat in the thread.
08. Now support the valve with your hand and unscrew the last M8 bolt out of the common rail.
09. Unscrew the turnbuckle on the common rail side; the control valve can be removed now.
10. Next the whole common rail, bottom side, can be removed by fully unscrewing the 12 M8 bolts.

Fig. 1



1. Remove plugs
2. Demount P-pipe
3. Demount T-pipe
4. Threaded rod
5. Demount pipe P5
6. Demount pipe S5
7. Loosen pipe Q5
8. Loosen bolts common rail
9. Remove valve
10. Remove common rail

Mounting control valve 02

Attention!!!

When welding make sure the ground is placed onto the same material as been welded. This in order to prevent in burning of the Cargo Floor components.

The valve plate has been designed in such a way that it will fit any system height (fig 3). The valve plate has been provided with a "base" that is step by step, this indicates where the cut needs to be made with the various frame heights (fig. 2). Saw the valve plate at the right length, when the system concerned is a H140 no cut needs to be made. The valve plate is placed parallel to the cylinders with a distance of 112 mm. [6.17"], measured from the head of cylinder no. 1 until the valve plate. Remove paint and rust from the spot where the valve plate should be placed and weld the plate into place with four welds of five cm [2"] of a=4 (fig. 3). Preserve the weld.

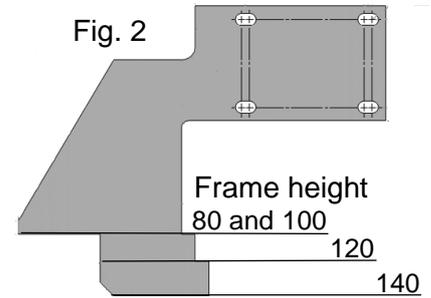
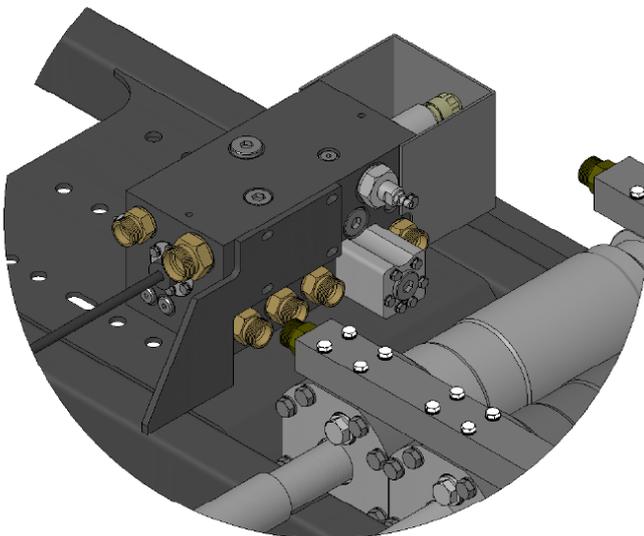
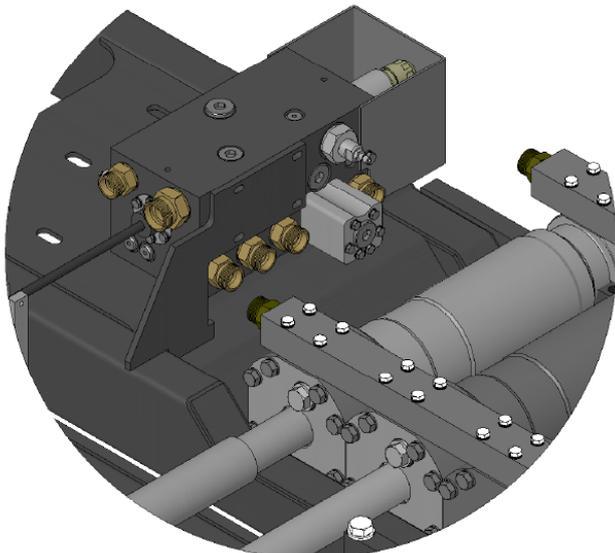
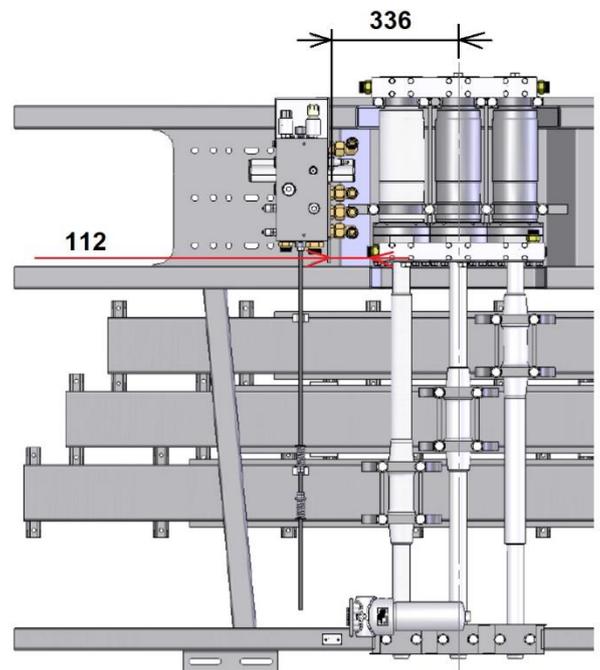


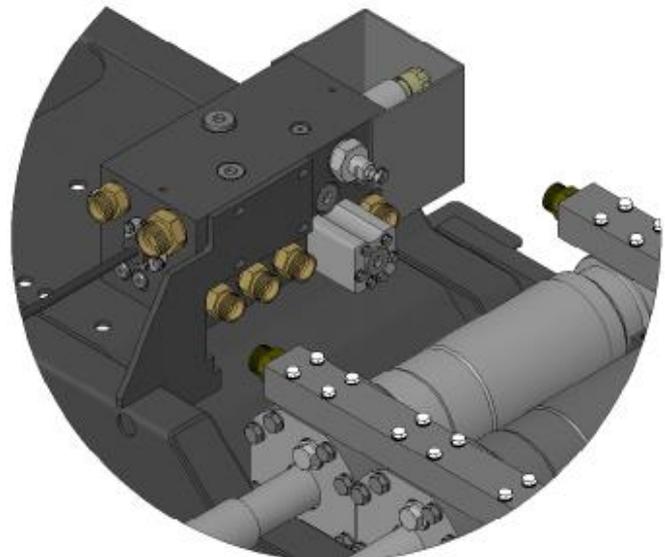
Fig. 4



H80 / H100 rear bridge

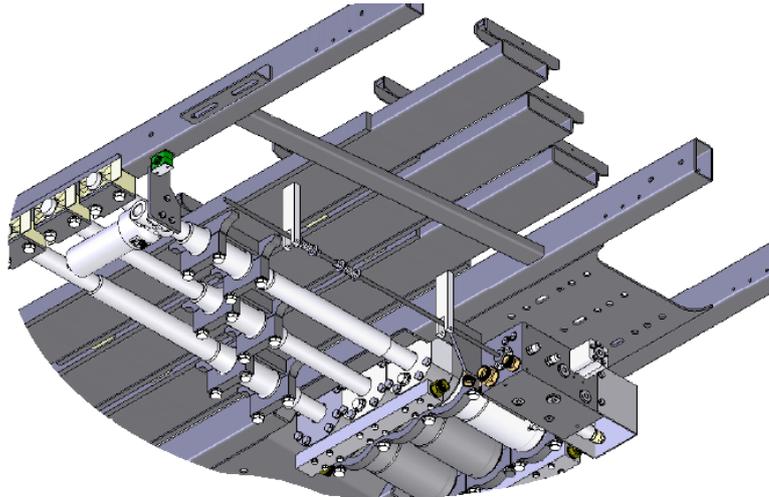


H120 rear bridge



H140 rear bridge

Fig. 4



The new control valve 02 can be prepared by mounting and fastening the straight screw-in couplings. Five straight screw-in couplings of 3/4"-20 are placed into the connections 1, A1, 4, B1 and on the front side P of the control valve.

The 1"-25 is meant for the T connection on the front side of the control valve.

The control valve can now be mounted onto the valve plate and fastened with the 4 M8x25 bolts.

Now screw the threaded rod into the control valve and secure the distance rings.

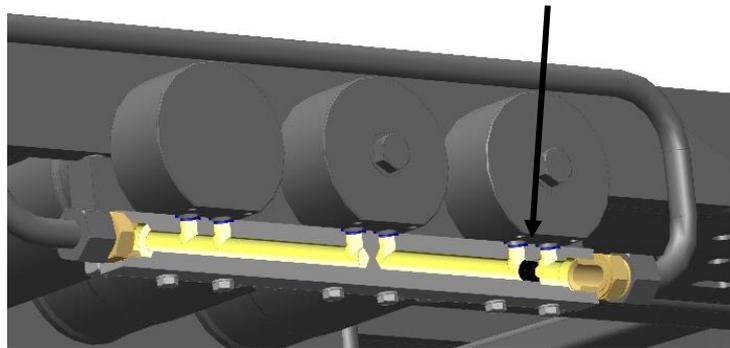
Next the position and length of the command lips can be determined by using the threaded rod (fig. 4).

Remove the paint and rust from the moving cross members concerned. **Before welding replace the ground clamp to the moving cross member, which needs to be welded.** Weld the command lips solidly and preserve the weld. Put bolts in the command lips so the threaded rod can no longer sag.

Mounting and connecting the common rail to the bottom side of the cylinders

Stop common rail

Fig. 5



Screw-in the screw-in couplings 3/4"-20 into the supplied common rail and fasten it. Now the common rail can be mounted onto the bottom side of the cylinders. **Attention: when mounting make sure that the plug that is in the common rail is in the right position (fig 5.)**

Fasten the supplied 12 M8 bolts, provided with spring washers, with 30 Nm [23 ft-lbf].

The straight screw-in couplings 3/4"-20 of the common rail, rod side, can be replaced by the new screw-in couplings.

Hydraulic hoses connection schedule

Mount the hydraulic hoses in such a way that they do not bend. The hoses that run over, or next to, steel components should be protected and fastened in a good way in order to prevent wear occurring.

When connecting the hydraulic hoses it would be best to follow the next steps in the order mentioned:

The first hose

Screw the regulated square coupling 20x20 by hand onto the screw-in coupling from connection A1.

Take hose 90°-Straight L=800 and screw the square coupling of the hose by hand onto the screw-in coupling X2 of the common rail. The straight part needs to go on the adjustable L coupling of connection A1 of the control valve. Now all the turnbuckles of the coupling and the hoses can be fastened.

The second hose

First screw the regulated square coupling 20x20 by hand to the screw-in coupling of connection 1.

Take the hose 90°-Straight L=800 and screw the square coupling of the hose by hand onto screw-in coupling X1 of the common rail. Next the straight part goes onto the regulated square coupling of connection 1 of the control valve. Now all the turnbuckles of the coupling and the hose can be tightened.

The third hose

Can be mounted as the previous hose, first screw the regulated square coupling 20x20 by hand onto the screw-in coupling of connection 4 of the control valve.

Take the hose 90°-Straight L=800 and screw the square coupling of the hose by hand onto screw-in coupling X4 of the common rail. Next the straight part onto the regulated square coupling on connection 4 of the control valve. Now all the turnbuckles of the coupling and the hose can be tightened.

The fourth hose

Screw the regulated square coupling 20x20 by hand to the screw-in coupling of connection B1 of the control valve.

Take the hose 90°-Straight and screw the square coupling of the hose by hand onto screw-in coupling X3 of the common rail. Next the straight part onto the regulated square coupling 20x20 on connection B1 of the control valve.

Now all the turnbuckle of the coupling and the hose can be tightened.

Next connect the two hydraulic hoses to the front side of the control valve, pressure and return. The hydraulic hose 20-20 R-R L=1200 goes from the pressure filter to connection P of the control valve.

The last thing to do is connect hose 25-25 R-R L=1200 from connection T of the control valve to the return connection.

Fig. 6

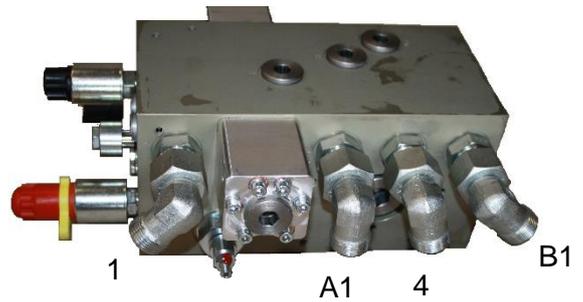
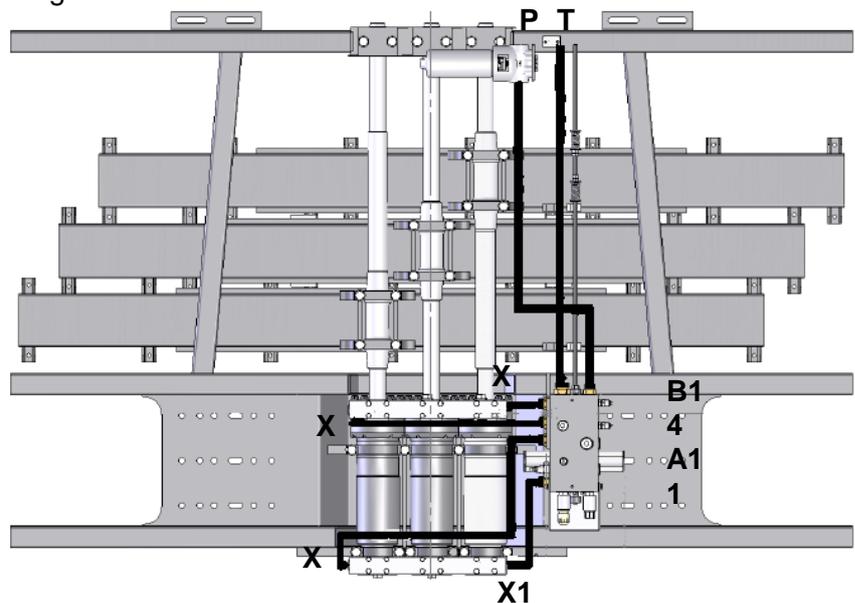


Fig. 7



Finishing works

If no suitable plug is connected to the wiring for the new GS02 on/of valve the old plug needs to be removed from the wire.

Connect the wiring in a good way with the cable of the supplied Deutsch plug so a watertight connection is obtained. Plug the Deutsch plug into the coil. Check the pressure filter element and replace it if it has any defects or is polluted. Check the oil level of the tank and give it a refill if needed. Next connect the pump and electrical installation.

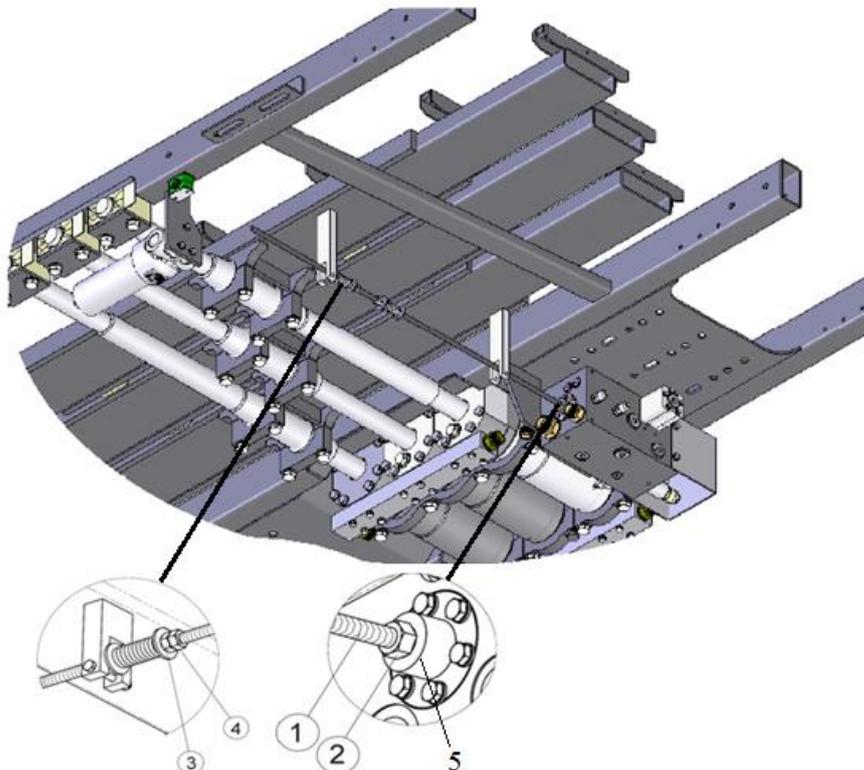
Adjusting the threaded rod

Check that the wire rod is fastened securely to the steering valve, stroke exactly 12 mm. If not, then screw the wire rod (1) as far as possible into the plunger and secure this with the contra nut (2). Loosen nuts (3 and 4) and move these about 3 cm [1.18"] in the direction of the steering valve. Now switch the pump on. The system will stop now at the point where the command lip no longer operates the switchover valve. Switch off the pump.

Now push the wire rod (1) in until the spacer ring (5) touches the switchover valve. Tighten nuts (3 and 4) so that the spring is fully pushed in, and secure them by tightening them against one another. Repeat this procedure for the other side.

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

Fig. 8



Choke

To make the control valve function properly a standard choke is mounted in the PB channel of the control valve. This choke is suitable for a flow of 80 – 110 liters [21 – 29 gallons] a minute. When there is a different oil flow the functioning of the control valve can be influenced.

Compare therefore the channel opening of the steering valve 01 with that of the steering valve 02. The standard hole is 6,5 mm [0.29]. An easy way to check the measurement of the choke opening is by using a 6,5 [0.29] drill bit.

Protective cover

Now mount the protective cover that is being mounted on the rear side of the control valve with the three winged nuts. Before mounting grease these nuts a little with copper grease.

Now test the system in the function loading as well as unloading, before it leave the garage. Also check all components and couplings to assess if any leakage is occurring.

If any questions remain after reading this instruction do not hesitate to contact us.