

# **CARGO FLOOR®**

## INSTRUCTION TO CHECK THE MAXIMUM PRESSURE OF A CARGO FLOOR SYSTEM

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

Cargo Floor B.V.

World's leading manufacturer and supplier of horizontal loading- and unloading transport conveyor systems.

**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 moving 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 conveyor transport 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 user manual, but if this has not been supplied, please contact your dealer or download it from the official Cargo Floor website: [www.cargofloor.com](http://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 moving 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 conveyor 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 conveyor 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 conveyor transport 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 moving floor system and the vehicle.
- M) Hydraulic lines, couplings and hoses with very small diameters will cause damage.
- N) If the Cargo Floor moving 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 transport 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 conveyor 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 moving 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](http://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 moving 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;

### Follow the instructions carefully

With this instruction it is possible to measure the maximum pressure of an empty trailer.

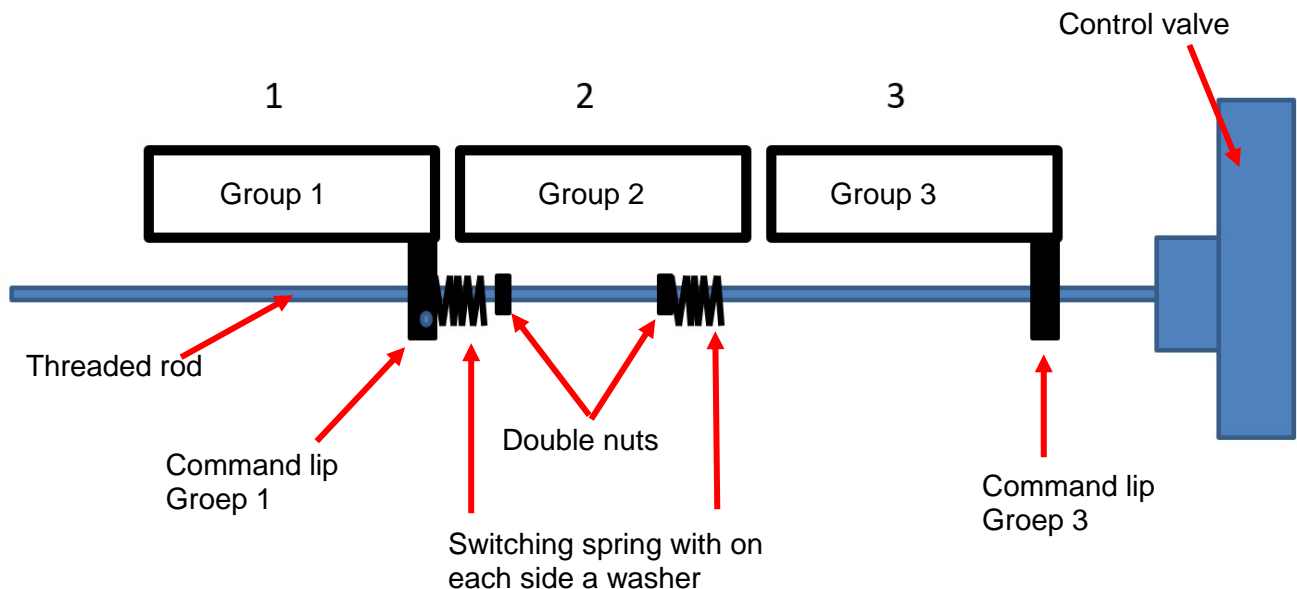
The Cargo Floor moving floor systems are extensively tested and adjusted on the right pressure setting when the system is supplied to the trailer builder.

In some cases it is necessary to check the maximum pressure. This is required when the system needs more force to operate than is available. Check our internet site, [www.cargofloor.com\\_after\\_sales](http://www.cargofloor.com_after_sales), to find out what kind of system you have. The various types of systems have different maximum pressure settings. You could also check the identification plate of the system to see what the maximum pressure is of the specific system.

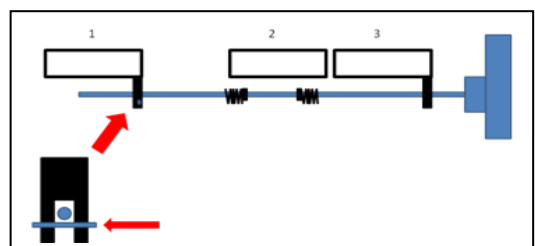
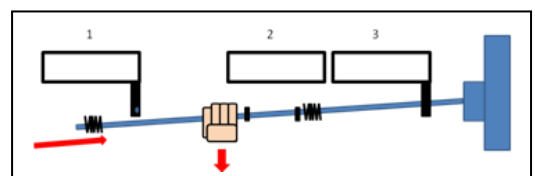
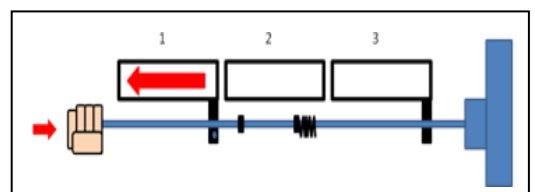
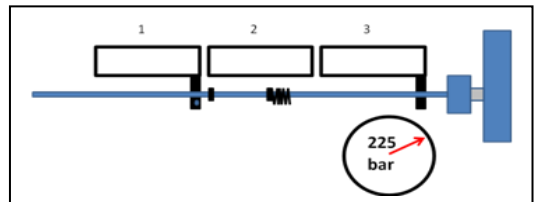
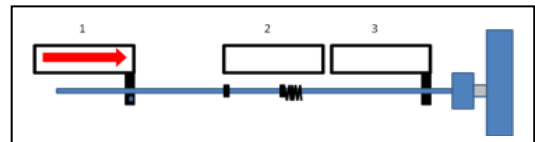
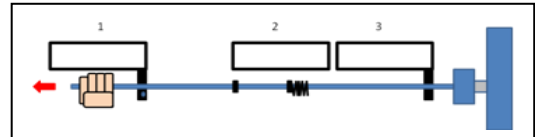
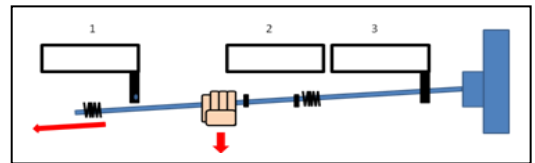
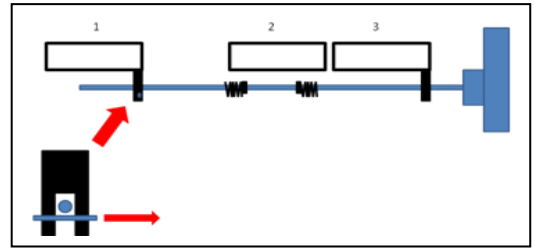
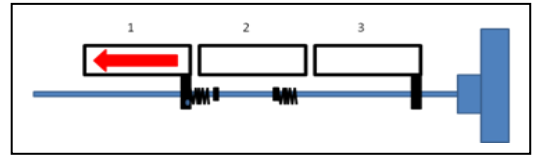
To document the information fully we advise you to download the hydraulic data sheet from our internet site [www.cargofloor.com\\_after\\_sales](http://www.cargofloor.com_after_sales) and fill it in as complete as possible. The position of both measurement points, M1 and M2, are also indicated. Connect both manometers before start taking the measurements.

This instruction is meant for the standard system types, eg. the CF300, CF400, CF500 SL, CF500 SL2 and the CF500 SLC. This instruction applies to all these systems.

### LEGEND



1. **Switch on the pump and start the system.** Let the command lip from group 1 move away as far as possible and **stop** the system at that moment.
2. **Switch off the pump.** Take away the bolt (or pin) in the command lip from group 1.
3. You will be able to pull the threaded rod down and slide the spring and washers of the threaded rod in the direction of the head board of the trailer.
4. Pull the threaded rod by hand in the direction of the headboard of the trailer.
5. **Switch the pump on and start the system**, group 1 will move in the direction of the rear doors of the trailer.
6. Group 1 will not be able to switch the threaded rod on the end of its stroke. The system will activate the pressure circulation valve and the maximum pressure can be read on the manometer attached to measurement point M1 on the control valve. **After reading the maximum pressure stop the system immediately and switch off the pump.**
7. The switching of the threaded rod must be restored after this check. Push by hand the threaded rod in the direction of the doors of the trailer. **Switch on the pump and start the system.** Group 1 will move in the direction of the headboard of the trailer. When the command lip of group 1 is as far away as possible, **stop the system and switch off the pump.**
8. The washers and steel spring can be put back on the threaded rod after you pull the threaded rod down.
9. Put the bolt (or pin) back in the command lip of group 1.



### WHAT CAN BE CONCLUDED FROM THE READING OF THE MAXIMUM PRESSURE? THREE SITUATIONS ARE POSSIBLE

#### Pressures of the standard systems

System type	Max. pressure M1	Max. pressure M2	Max. pressure pulling vehicle
CF300	225 bar [3263 PSI]	10 bar [145 PSI]	250 bar [3626 PSI]
CF400	225 bar [3263 PSI]	10 bar [145 PSI]	250 bar [3626 PSI]
CF500 SL	225 bar [3263 PSI]	10 bar [145 PSI]	250 bar [3626 PSI]
CF500 SL-2	225 bar [3263 PSI]	10 bar [145 PSI]	250 bar [3626 PSI]
CF500 SLC	225 bar [3263 PSI]	10 bar [145 PSI]	250 bar [3626 PSI]

#### 1. The measured pressure on measurement point M1 is correct

The maximum pressure will not cause any malfunctions. However if you have problems related to lack of pressure (= lack of force) we advise you to contact Cargo Floor for further instructions.

#### 2. The measured pressure on measurement point M1 is too low

The next steps are needed to get the full information.

1. Check the pressure of the pulling vehicle. If the pressure is lower then the required pressure, adjust it to the right pressure.
2. Check if a tipper valve is on the truck. If it is turned to the wrong setting turn it to the right setting.
3. Check if there is other hydraulic equipment on the truck or trailer that could influence the pressure that is available for the system. If there is equipment present, bypass it and check the max. pressure again.
4. If everything is OK with regards to the truck and the trailer, you should check the maximum relief valve of the Cargo Floor transport system and check for pollution. For this remove the complete maximum relief valve.



**Do never ever take the valve apart and never ever adjust the setting of the maximum relief valve without contacting Cargo Floor beforehand. Warranty will no longer be valid if the settings of the maximum relief valve have been altered and unauthorized changes could also damage the system/trailer and create dangerous situations.**

Contact Cargo Floor for further assistance from the after sales department.

#### 3. The measured pressure on measurement point M1 is lower than the pressure measured on measuring point M2

The pressure and return pipe from the pump are connected wrong (reversed). This means that the pressure pipe is connected to the return side (T) and the return side has been connected to the pressure side (P).



**Switch off the pump immediately and do not switch it back on.**

The filter element will be, as a result of this, damaged. Before you turn on the pump again it will need to be checked and replaced. The pipes also need to be connected the right way.

Check after the measuring if the Cargo Floor moving floor system fully functions correctly before it leaves the workshop.

When you have any doubts regarding a malfunction or the results of your measurements, please contact the Cargo Floor after sales department. Make sure that you have the system serial number at hand when you call because it will be asked.

**CONTACT DATA****Postal and visiting address:**

Cargo Floor B.V.  
Byte 14  
7741 MK Coevorden  
Nederland

Phone number: +31 524 593 900  
E-mail: [info@cargofloor.com](mailto:info@cargofloor.com)  
Website: [www.cargofloor.com](http://www.cargofloor.com)

**Order spare parts:**

E-mail address: [sales2@cargofloor.nl](mailto:sales2@cargofloor.nl)  
DID number: +31 524 593 922

**After Sales (technical questions and malfunctions)**

E-mail address: [as@cargofloor.com](mailto:as@cargofloor.com)  
DID number: +31 524 593 981 / +31 524 593 991