



ROEMHELD
HILMA ■ STARK

Pedal controller with THF

Operating manual

WM-020-257-11-en pedal controller with thf

precise, fast and powerful



Pedal controller with THF (third hand function) Art. no.: S804-427



WM-020-257-11-en pedal controller with thf

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2. Identification of the partly completed machinery

Product:	Pedal controller with THF (third hand function)
Function:	Controlling a pressure booster using foot pedal
Product group:	Pressure booster, accessory
Article number:	S804-427
Applicable to:	STARK.classic.1 / 2 / 3 & STARK.classic.1 NG / 2 NG / 3 NG STARK.balance.2 STARK.compact STARK.sweeper & STARK.hydratec

3. Instructions for the user

3.1 Purpose of the document

This operating manual

- describes the function, operation and maintenance of the pedal controller with THF,
- gives important instructions for safe and efficient use of the pedal controller.

3.2 Target group of the document

Fitters, installers and operators who assemble, install and operate the quick-release locks. You should be familiar with the handling of hydraulic and pneumatic elements.

3.3 Presentation of safety instructions

Safety instructions are identified by a pictogram and a signal word. The signal word describes the severity of the impending risk.



DANGER

Immediate imminent risk to life and health of persons (serious injury or death). Be sure to follow these instructions and the procedures described!



CAUTION

Potentially hazardous situation (minor injury or material damage). Be sure to follow these instructions and the procedures described!



INFORMATION

Tips for use and particularly useful information.



INSTRUCTION

Obligation to follow the described procedure or method for the safe use of the machine.



4. Basic safety

4.1 Intended use



The third hand function, in short THF, is used for safe handling during manual loading (particularly suitable for vertical loading direction) of devices, pallets and/or workpieces in machines or systems. The intended use also presupposes:

- compliance with all the instructions in the operating manual
- observance of the inspection and maintenance intervals
- use of only OEM parts.

4.2 Reasonably foreseeable misuse



Any use other than that specified under "Intended use" or use beyond this is considered improper use!

Risks can arise if the device is not used for its intended purpose. Improper uses include e.g.:

- exceeding the technical values specified for normal operation

The operating company bears sole responsibility for any injury or damage resulting from such improper use. The manufacturer assumes no liability.

4.3 Modifications or alterations



Unauthorised modifications or alterations to the THF pedal controller will void any liability and warranty on the part of the manufacturer!

Therefore do not make any modifications or alterations to the THF pedal controller without consultation with and the written approval of the manufacturer.

4.4 Spare and wear parts and auxiliary materials



The use of spare and wear parts from third-party manufacturers can result in risks. Only use STARK original parts or parts approved by the manufacturer. The manufacturer will assume no liability for any injury or damage resulting from the use of spare and wear parts and auxiliary materials not approved by the manufacturer.

4.5 Obligations of the operating company



The operating company is obliged to only allow persons to work on or with the THF pedal controller who

- are familiar with the fundamental occupational health & safety and accident prevention regulations
- have been instructed in the use of the THF pedal controller and have read and understood this operating manual.

The requirements of EC Directive 2007/30/EC on the use of work equipment must be observed.

4.6 Pressure hazards



It is essential to ensure that the maximum operating pressure cannot be exceeded. There is a risk of destruction and injury. Inadvertent incorrect setting of release or holding pressure must be prevented. Lines or hoses bursting due to excessive pressures can endanger persons.

Measure:

- Observe the specified pressure limits

Failure to do so may result in malfunction.



5. Installation of the pedal controller on a pressure booster

The COMFORT or RECORD pressure booster can be switched manually via the valve attached to the respective control unit. If the pressure booster is to be used together with a foot pedal controller, the standard components must be matched to each other in just a few steps.

Before starting the modification, check the following:

Are all parts available according to the packing list?

- Are all parts undamaged?
- Are all parts clean?
- Is the associated pressure generator set to the correct release pressure?

5.1 Modification of the COMFORT pressure booster

1. Remove the coupling nipple (Fig. 1).
Screw in the straight screw-in connector G1/8" (Fig. 2); make sure that the connection is tight.



Fig. 1



Fig. 2

2. Connect the "out" air connection (Fig. 3) on the back of the control box to the connection (Fig. 4) on the pressure booster.



Fig. 3



Fig. 4

3. Connect the "in" air connection (Fig. 5) at the rear of the switch box to the compressed air network (min. 6 bar, max. 10 bar).



Fig. 5

4. Move the pneumatic valve (Fig. 6) to the "Release" position and leave it in this position.



Fig. 6

5.2 Modification of the RECORD pressure booster

1. Remove the coupling nipple (Fig. 1).
Screw in the straight screw-in connector G1/8" (Fig. 2); make sure that the connection is tight.



Fig. 1



Fig. 2

2. Connect the "out" air connection (Fig. 3) on the back of the control box to the connection (Fig. 4) on the pressure booster.



Fig. 3



Fig. 4

3. Connect the "in" air connection (Fig. 5) at the rear of the switch box to the compressed air network (min. 6 bar, max. 10 bar).



Fig. 5

4. Pull the slide valve (Fig. 6) down to the "release" position (see arrow Fig. 6) and leave it in this position.



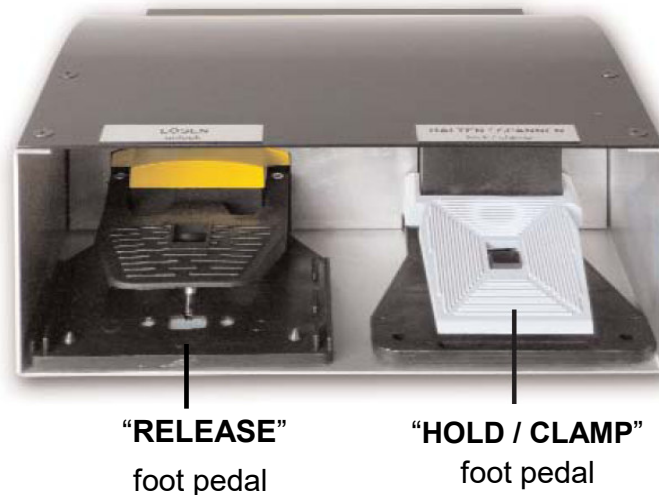
Fig. 6

This modification ensures that the pressure booster can be controlled via the foot pedal. The control unit of the pressure booster does not need to be operated.



6. Operation of the pedal controller

The pedal controller is used to operate a pressure booster via the foot pedal. A distinction is made between two switching states – on the one hand, the actual release of the clamping elements and on the other, the so-called third hand function (locked but not clamped).



Sequence of a change procedure:

1. Couple the hydraulic hose to the quick-release lock plate or to the hydraulic system.
2. By pressing the right **“HOLD / CLAMP”** foot pedal (foot pedal locks into place) a reduced pressure is built up at the pressure booster and the quick-release lock plate goes into the hold position or THF position. The pallet/device is loosened but not released – so the pallet/device cannot fall out.
3. If the left **“RELEASE”** foot pedal is subsequently pressed, the full release pressure is built up and the pallet/device can be removed. The foot pedal must remain pressed during this procedure so that the quick-release lock plate remains in the release position.
4. Once the pallet/device has been removed, the **“RELEASE”** pedal can be released again. The quick-release lock plate returns to the holding position.
5. Now a new pallet/device can be inserted into the quick-release lock plate or “locked into place”. Due to the third hand function, the pallet/device is secured but not clamped – so it is not possible for the pallet/device to fall out. The latching of the quick-release locks should be checked by pulling on the pallet / device.
6. By pressing the right **“HOLD / CLAMP”** foot pedal, the pressure in the quick-release lock plate is reduced (pressure drops to 0 bar) and the pallet/device is clamped.
7. The hydraulic hose can be uncoupled after the change procedure has been completed.



7. Specification dimension tester

For the setting of the necessary pressure to reach the THF position, reference is made to the so-called specification dimension tester:

STARK classic specification dimension tester – specification dimension THF

- Order no. S504-031 for STARK.classic.1 & 1 NG & compact
- Order no. S504-032 for STARK.classic.2 & 2 NG
- Order no. S504-033 for STARK.classic.3 & 3 NG



STARK.balance.2 specification dimension tester – specification dimension THF

- Order no. S504-036 for STARK.balance.2

STARK.sweeper specification dimension tester – specification dimension THF

- Order no. S504-122 for STARK.balance.2



You can read about the function of the specification dimension tester in the associated operating manual for the specification dimension tester STARK WM-020-349-xx-en.

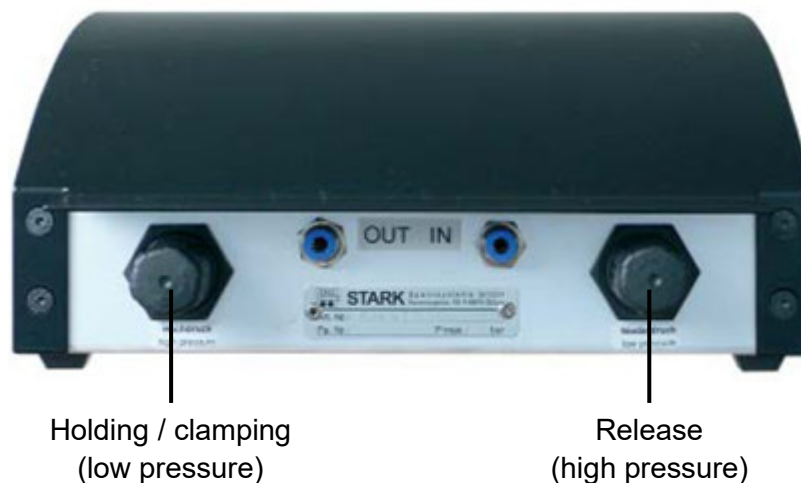


8. Commissioning and maintenance

Before the pedal controller and pressure booster can be used, the pressure setting must be adapted to the respective quick-release lock plate. The control dimensions for the various element family needs to be set and can be found in the respective operating instructions.

8.1 Setting up the release pressure for THF

1. Press the right “**HOLD / CLAMP**” foot pedal so that it locks into place. In this position, the hydraulic pressure and thus the specification dimension in the quick-release clamping cylinder can be adjusted (pressure and specification dimension). The holding pressure on the rear control valve can now be adjusted so that the THF position **specification dimension THF** is reached (measurement using specification dimension tester).
2. In the second step, the “release pressure” is set. To do this, press and hold down the left “**RELEASE**” foot pedal. Check the specification dimension again and ensure that the value of **specification dimension A** is reached.



8.2 Checking the “Hold” switching position



In order to guarantee a faultless clamping process, the specification dimensions must be checked regularly and adjusted if necessary.

8.3 Air supply



In order to ensure a safe function of the pedal controller, a constant air supply must be ensured. Therefore regularly check the air supply and the air pressure.



Info: New order numbers!

In the course of a system modification within the ROEMHELD Group, the order numbers for STARK Spannsysteme have been adapted and standardised.

- NEW: all order numbers start with **S**
- NEW: hyphen - instead of blank space

S5000-104
 instead of
 5000 104

Examples

New order number	Old order number	Modifications
S04342	S04342	<i>No modification</i>
S5000-104	5000 104	S as prefix, hyphen - instead of blank space



9. Manufacturer's declaration

Declaration of Conformity Konformitätserklärung

We

STARK Spannsysteme GmbH
Römergrund 14
A-6830 Rankweil
Austria

declare under our sole responsibility that the product
 erklären in alleiniger Verantwortung, dass das Produkt

Type: Pedal controller with THF
No.: S804-427

to which this declaration relates, corresponds to the following standards
 auf das sich diese Erklärung bezieht, mit den folgenden Normen übereinstimmt

2006/42/EC	Machines, Addendum II A
73/23/EC	Low voltage
89/336/EC	Electromagnetic compatibility

and the following standards were applied.
 und dass die folgenden Normen zur Anwendung gelangten.

DIN EN ISO 4413	Safety of Machinery - Safety Requirements for Fluid Power Systems and Their Components - Hydraulics Sicherheit von Maschinen - Sicherheitstechnische Anforderungen an fluidtechnische Anlagen und deren Bauteile – Hydraulik
EN 60204-1	Electric equipment of industrial machines Elektrische Ausrüstung von Industriemaschinen
EN 414	Safety principles Sicherheitsgrundsätze

A technical documentation exists completely. The instruction manual for the product is available.
 Eine technische Dokumentation ist vollständig vorhanden. Die zum Produkt gehörende Betriebsanleitung liegt vor.

STARK Spannsysteme GmbH

Rankweil, am 17.11.2020


 Martin Greif
 Managing Director / Geschäftsführer