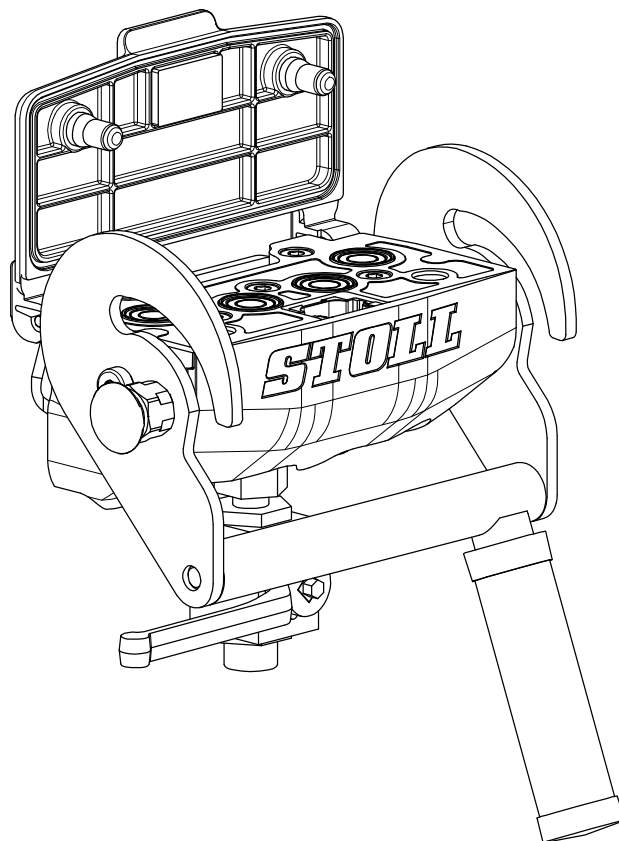


STOLL

The Loader Specialist.

INSTALLATION INSTRUCTION

HYDRO-FIX



Wilhelm STOLL Maschinenfabrik GmbH

Postfach 1181, 38266 Lengede
Bahnhofstr. 21, 38268 Lengede

Telefon: +49 (0) 53 44/20 0
Fax: +49 (0) 53 44/20 182
E-Mail: info@stoll-germany.com
Web: www.stoll-germany.com

Contents

1	Safety.....	3
1.1	Recommendations for the prevention of dangers during assembly and installation.....	3
1.2	Recommendations for the prevention of dangers due to an incorrect installation	3
1.3	Operation in accordance with specifications.....	3
2	About this manual.....	3
3	Overview.....	4
3.1	List of the different versions.....	4
3.2	Hydro-Fix upper part.....	4
3.3	Hydro-Fix lower part	5
4	Assembly	6
4.1	Preparation of the electrical interface	6
4.2	Mounting the Hydro-upper part.....	8
4.3	Mounting the Hydro-Fix-lower part with the Standard or Comfort-hydraulic.....	9
4.3.1	Mounting the bracket.....	9
4.3.2	Mounting without electricity.....	9
4.3.3	Mounting with integrated electrical interface	10
4.4	Mounting the Hydro-Fix lower part on Hydac valves (single lever control).....	11
4.4.1	Mounting without electricity	11
4.4.2	Mounting with integrated electrical interface	12

1 Safety

1.1 Recommendations for the prevention of dangers during assembly and installation

- Secure the tractor against accidentally starting up and rolling away!

Danger when working on the hydraulics!

Hydraulic oil can escape under high pressure / at a high velocity and seriously injure people who are nearby!

Hydraulic equipment can move unexpectedly if there is a drop in pressure (for example, with the loosening of a line!)

- Depressurise the system before starting work on the hydraulics and secure it against being switched on again. Please refer to the operating instructions of the tractor.
- If it is unavoidable and work must be carried on the hydraulic system under pressure (e.g. bleeding):
Protect yourself against leaking oil!
Make sure that nobody else is put at risk!

1.2 Recommendations for the prevention of dangers due to an incorrect installation

Incorrectly laid hydraulic lines can endanger the operator and other persons!

- Lay hydraulic lines correctly! Follow the installation instructions for hydraulic equipments!
- Do not twist; hydraulic hoses must not be laid twisted.
- Avoid tensile and compression stresses on the tubing.
- Lay the hose in such a way that there are no kinks or chafing. Make especially sure that the tubing is then routed directly away from junctions. A bend in the hose right by the junction may result in the hose being torn.
- Please observe the applicable work safety regulations and technical rules for hydraulic lines at the place of installation and use.

1.3 Operation in accordance with specifications

The equipments described in this manual are supplied to be mounted solely on agricultural or forestry tractors to operate Stoll front loaders.

The maximum allowable pressure in the hydraulic system is 205 bar.

The information for its correct use and technical data in the operating manual of the front loader apply in all other respects.

2 About this manual

This manual describes the different versions of the hydraulic interface "Hydro-Fix" (see the table below).

Please also note the installation instructions supplied for the hydraulic equipment or front loader fitting kits, which take into account individual connection points and mounting bracket for the respective tractor.

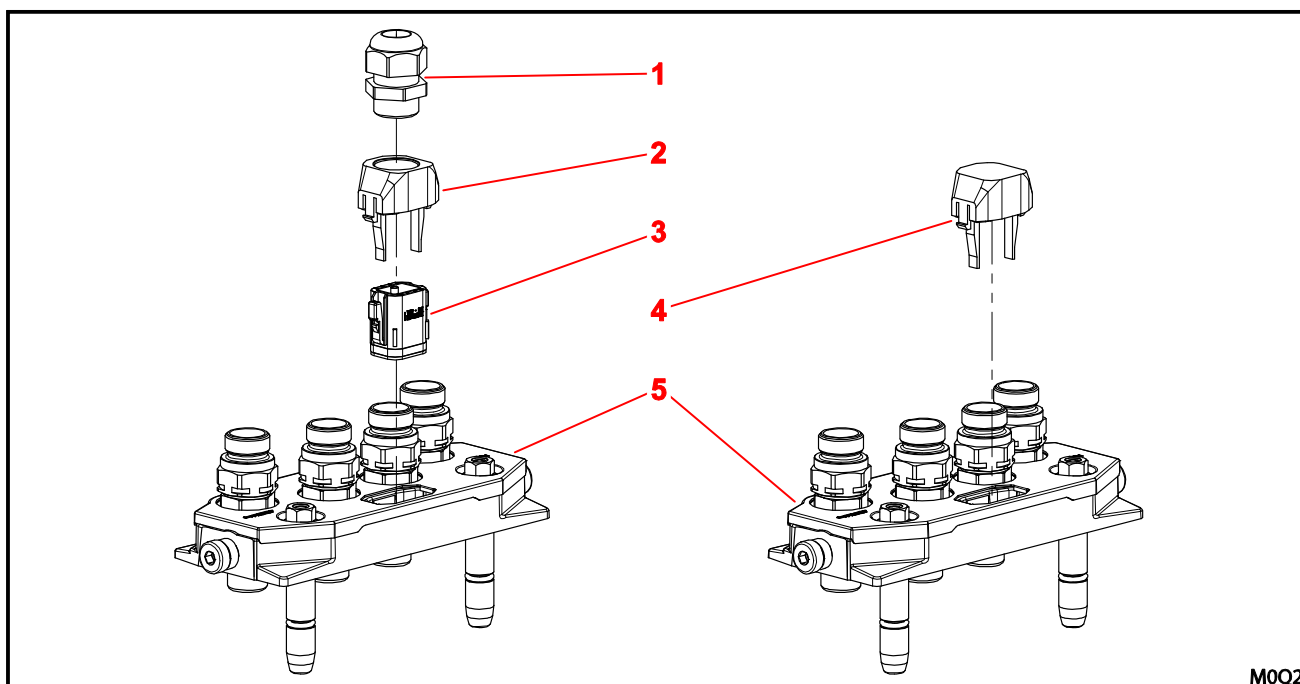
The installation instructions are aimed at specialist workshops. It is particularly important that you have experience in installing hydraulic components.

3 Overview

3.1 List of the different versions

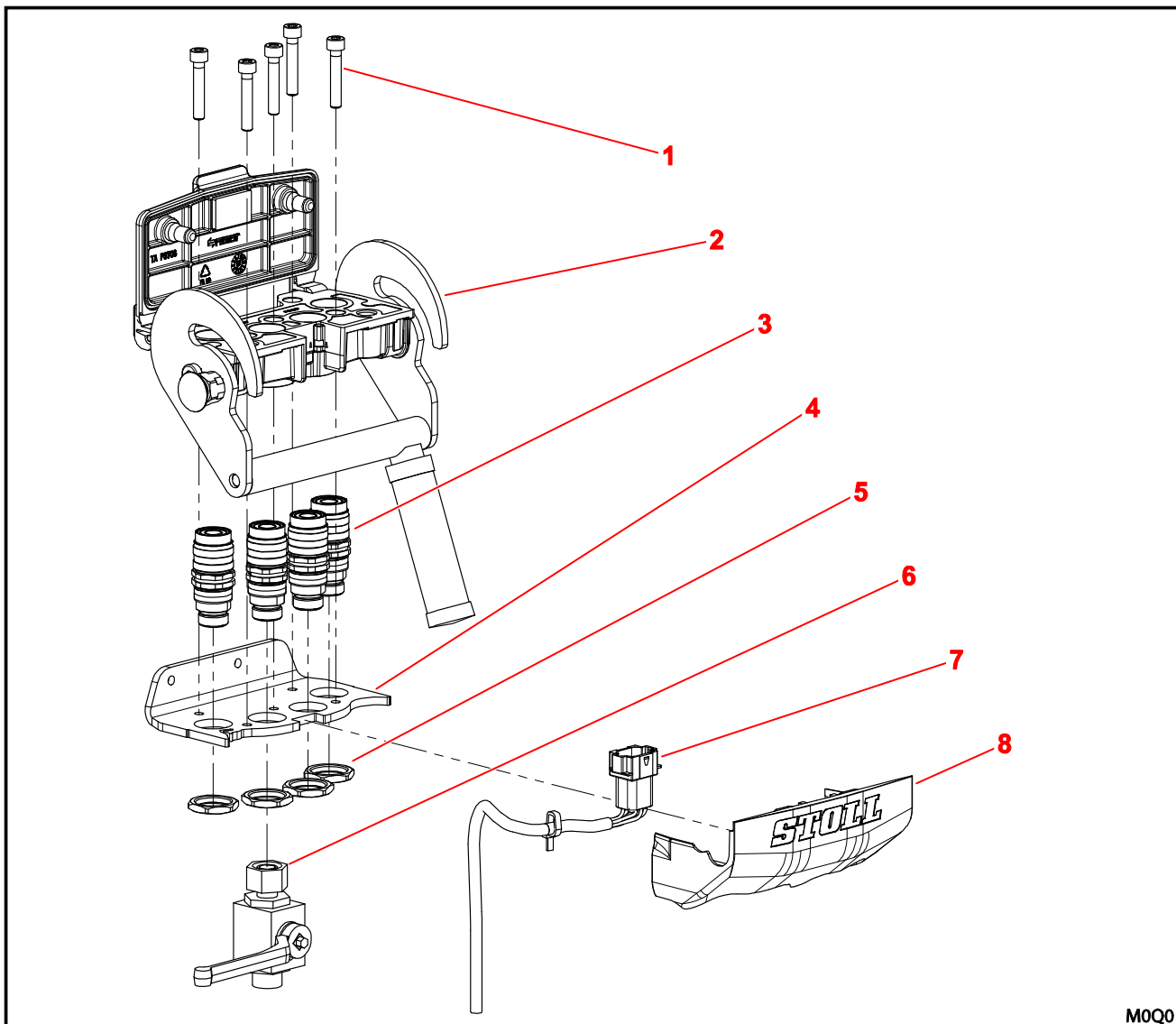
Ident-no.	Name	Comment
3616890	Hydro-Fix cpl. for EHS	Retrofit kit for tractors with single-lever control unit, complete, without electricity
3616900	Hydro-Fix cpl. standard	Retrofit kit for tractors with Standard or Comfort hydraulics, complete, without electricity
3618680	Hydro-Fix lower part EHS, with electric	Retrofit kit for tractors with single-lever control unit, lower part only, incl. electric interface
3618690	Hydro-Fix lower part standard, with electric	Retrofit kit for tractors with Standard or Comfort hydraulics, lower part only, incl. electric interface
3618640	Hydro-Fix cpl. for EHS, with electric	Retrofit kit for tractors with single-lever control unit, incl. Hydro-Fix-upper part incl. electric interface
3617850	Hydro-Fix cpl. standard, with electric	Retrofit kit for tractors with standard or Comfort hydraulics, incl. Hydro-Fix-upper part incl. electric interface
3616920	Hydro-Fix upper part	Hydro-Fix upper part, without electric
3618840	Hydro-Fix upper part	Hydro-Fix-upper part incl. electric interface

3.2 Hydro-Fix upper part



Pos.	Quantity	Name	Comment
1	1	Cable gland	only with integrated electrical interface, included with 3618640, 3617850, 3618840
2	1	Cap for strain relief	
3	1	Bush	
4	1	Closing cap	included with 3616890, 3616900
5	1	Hydro-Fix upper part	included with 3616890, 3616900, 3618640, 3617850, 3618840 (dust cap not shown)
6	1	Dust cap	

3.3 Hydro-Fix lower part



M0Q0

Pos.	Quantity	Name	Comment
1	5	Allen bolts M8x45	included with 3616890, 3616900, 3618680, 3618690, 3618640, 3617850
2	1	Hydro-Fix lower part	
3	4	coupling sleeves	only for Standard or Comfort hydraulics: included with 3616900, 3618690, 3617850
4	1	Support incl. 2 screws M8x20 with lock washers	
5	4	Nut for coupling sleeves	
6	1	Shut off valve	Part of the standard hydraulic
7	1	Electrical kit	only with integrated electrical interface, included with 3618640, 3617850
8	1	Front cover	included with 3616890, 3616900, 3618680, 3618690, 3618640, 3617850

4 Assembly

4.1 Preparation of the electrical interface

The new plug connectors replace the existing 7-pin plug and plug socket.



If diodes are mounted in or on the 7-pin socket, read the notes below!

- Mark the wires to the cables of the socket and the plug with the contact number and remove them.
- Dismantle the socket



The contact numbers on the 7 pin plugs and plug sockets, and the new 8-pin connectors correspond.

For the assignment of the wire colours on the front loader and the functions to the contact numbers, please refer to the table below. The table shows the maximum level of equipment permitted. Depending on the fittings and type of loader, there may not be enough cables.

Frontloader-Additional functions	Wire Color	Plug 8-pin plug. Contact-No.	Socket 7-pin plug Contact-No.
- 4th Control circuit (FS, FZ, FE)	brown (bn)	1	1
3rd Control circuit (FS, FZ, FE)	black (bk)	2	2
Rapid traverse- (FS+) or rapid emptying (FZ+, FZ-L)	blue (bu)	3	3
Scooping (FZ+) or Return-To-Level (FZ-L)	white (wh)	4	4
Comfort Drive	yellow (ye)	5	5
Hydro-Lock (hydraulic tool locking mechanism)	red (rd)	6	6
Earth	green (gn)	7	7

Instructions for the diodes



Diodes are required for some front loaders and front loader equipment. If these diodes are mounted in or on the 7-pin socket:

- Mark the diodes and remove them.
- Connect the diodes correspondingly at the other end of the respective cable / wires.

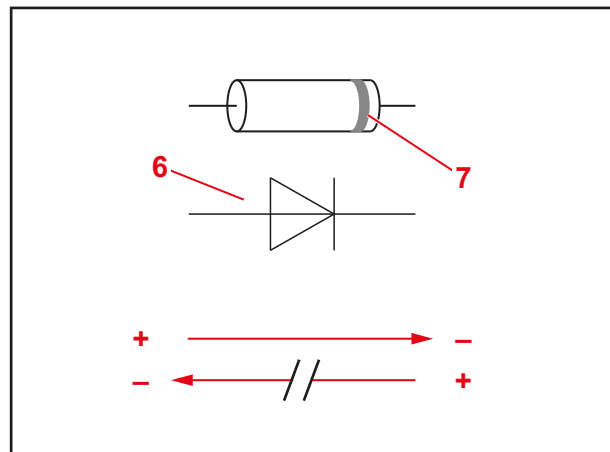


When installing the diodes, the installation direction is crucial:

Diodes only allow the electrical current to flow in one direction, the so-called passage direction. No current is allowed through in the reverse direction, the blocked direction.

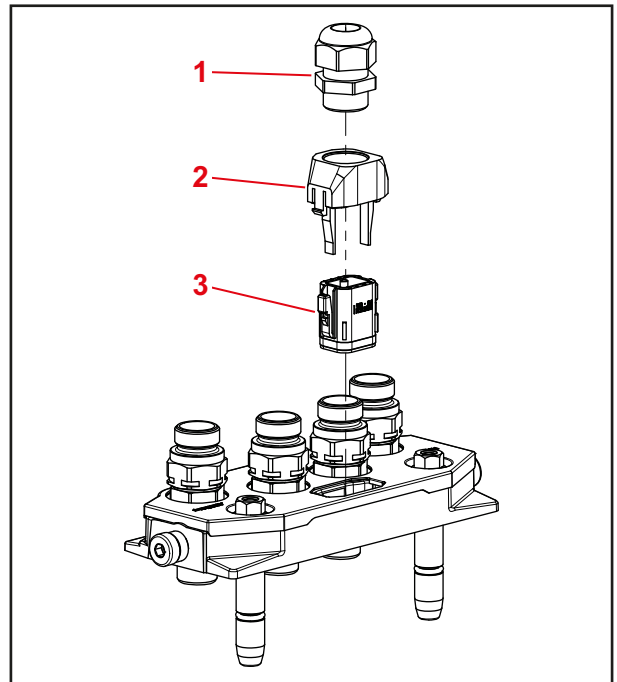
In circuit diagrams diodes are represented with a symbol (6). The triangle in the symbol indicates the direction of passage, the vertical line indicates the "blocked side".

The blocked side on the diode is marked with a ring (7).



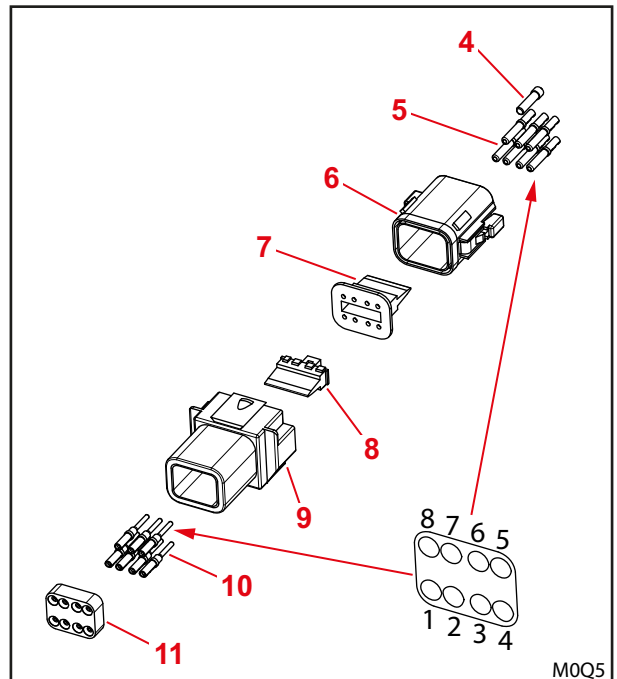
Socket housing for upper part

- Push the cable gland (1) and cap (2) onto the cable.
- Attach the socket contacts (5) onto the individual wires.
- Insert the socket contacts (5) in the housing (3, 6) at positions 1 to 7:
Push the contact through the seal until it clicks into place.
Check that the contact is properly engaged by gently pulling on the cable
- Insert the dummy plug (4) at pos. 8
- Insert and firmly press the wedge (7) in place.



Plug housing for lower part

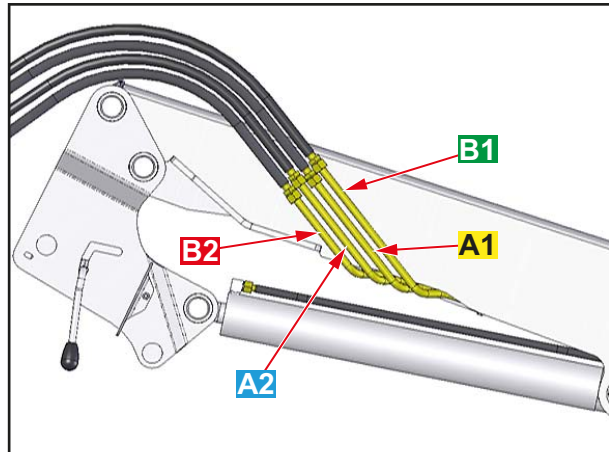
- Remove the seal (11) from the plug housing (9).
The seal (11) is not needed.
- Attach the pin contacts (10) onto the individual wires.
- Insert the pin contacts (10) in the housing (9) at positions 1 to 7
Push the contact on until it clicks into place.
Check that the contact is properly engaged by gently pulling on the cable
- Insert and firmly press the wedge (8) in place.



M0Q5

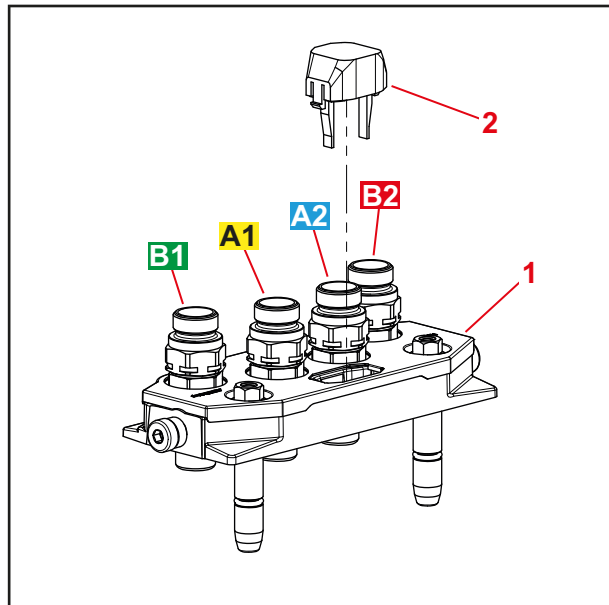
4.2 Mounting the Hydro-upper part

- If necessary, dismantle the existing hydraulic couplings.
- Connect the hydraulic lines A1, B1, A2, B2 of the beam on the Hydro-Fix-upper part (1).



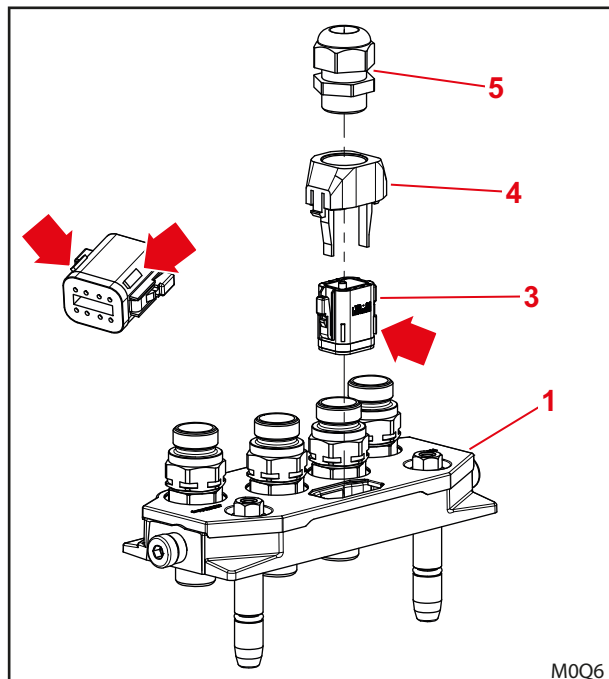
In front loaders without electricity:

- Plug the protective cap (2) in the lower part (1). (Wide side in the direction of hydraulic connections.)



In front loaders with electricity:

- Insert the socket housing (3) on the lower part (1), so that the "noses" (red arrows) face forward.
- Insert the cap (4). (Wide side in the direction of hydraulic connections.)
- Screw the cable gland (5) on the cap (4).
- Tighten the compression nut of the cable gland. (Strain relief)



M0Q6

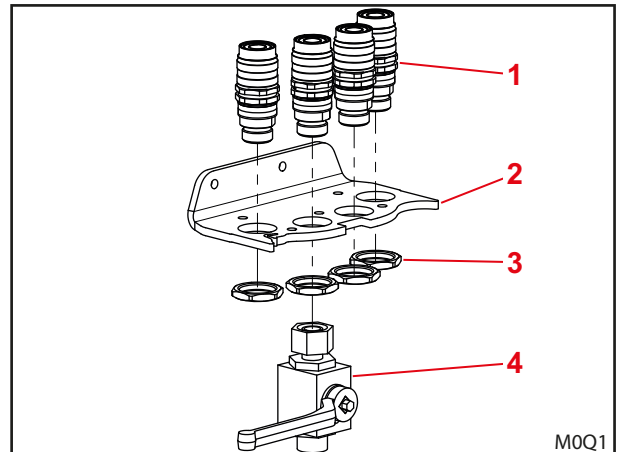
4.3 Mounting the Hydro-Fix-lower part with the Standard or Comfort-hydraulic

Necessary tool

1. Allen key SW6
2. Screwdriver
3. Open-end wrench SW13, SW24, SW27, SW30, SW 34

4.3.1 Mounting the bracket

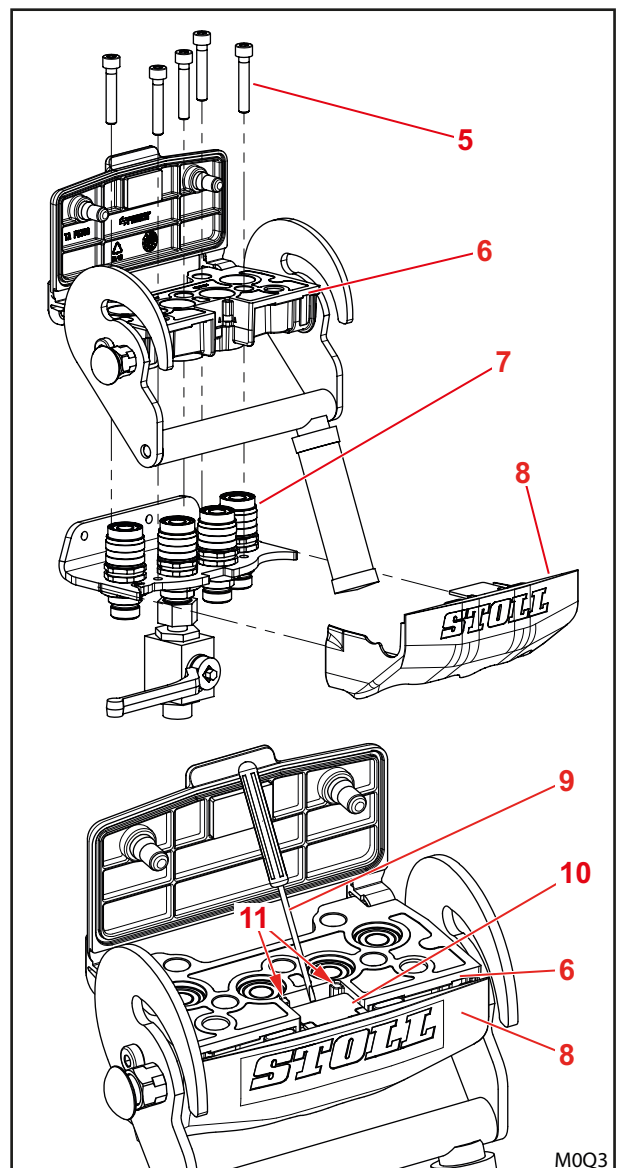
- Secure bracket (2) with 2 screws M8x20 on the right attachment component.
- Secure 4 hydraulic couplings (1) with the nuts (3) onto the bracket (2) fix.
- For standard hydraulics: Install the shut-off valve (4) on the coupling for the lifting-line.
- Connect 4 hydraulic lines below on the couplings and/or the shut-off valve.



➔ Follow the installation instructions for the mounting kit and the hydraulics
Make sure that the hydraulic lines are correctly assigned!

4.3.2 Mounting without electricity

- Slide the cover (8) onto the bracket (7), not all the way to the back.
- Slide the Hydro-Fix lower part (6) onto the bracket (7), not all the way to the bottom.
- Carefully raise the bracket (10) with a screwdriver (9) and slide the cover (8) completely so that the bracket (10) rests on the two supports (11).
- Push the Hydro-Fix-lower part (6) completely on.
- Secure the lower part of the Hydro-fix sub-section (6) with the 5 screws M8x45 (5):
 - First tighten the middle screw
 - Tighten the screws evenly.



4.3.3 Mounting with integrated electrical interface

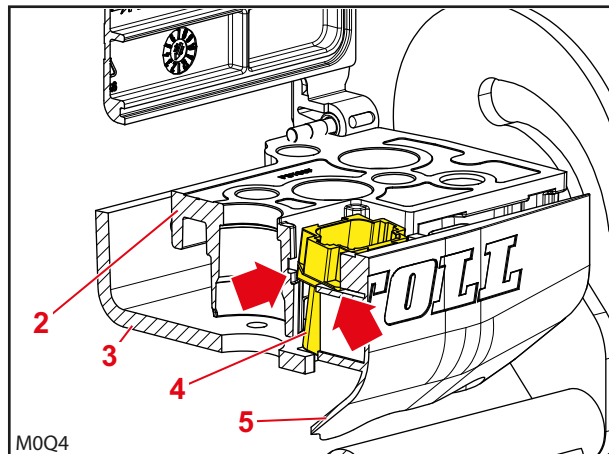
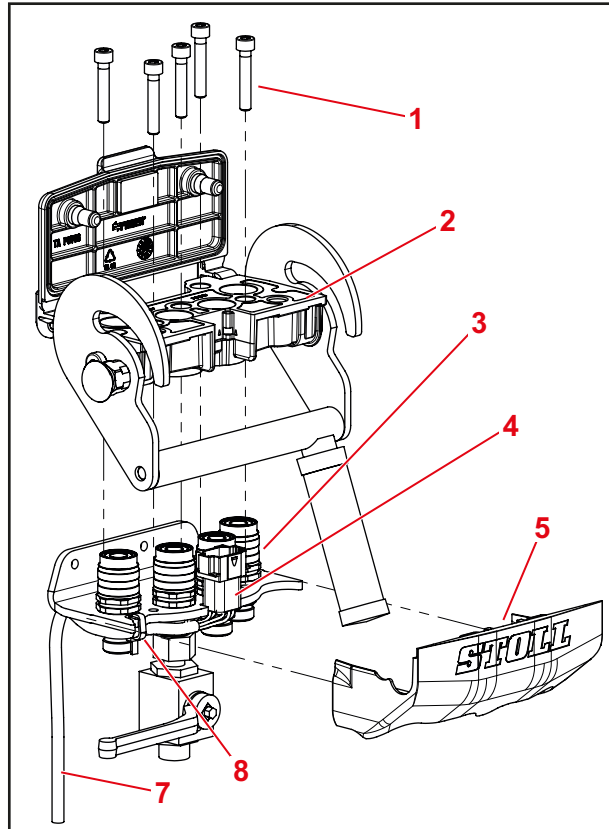
- Remove the strap on the cover (5).
- Slide the cover (5) onto the holder (3), not all the way to the back.
- Insert electrical plug connectors (4) on the cover (5).

☞ The groove of the connector (4) points to the lower part of the Hydro-fix (2), the spring for the cover (5).


- Install the cable (7) to the side and secure with cable ties (8).

☞ Make sure that you do not crush the cable!

- Slide the Hydro-Fix lower part (2) onto the bracket (3), not all the way to the bottom.
- Set the plug connector (4) at a slight angle, so that it slides when the cover and the upper part of the Hydro-fix are guided into the guides and supports (see arrows in the picture below).
- Slide the cover (5) on completely, at the same time gently press the lower part of the Hydro-fix (2).
- Secure the lower part of the Hydro-fix sub-section 26) with the 5 screws (1):
 - First tighten the middle screw
 - Tighten the screws evenly.



4.4 Mounting the Hydro-Fix lower part on Hydac valves (single lever control)

 Note also the instructions for your single-lever control unit!

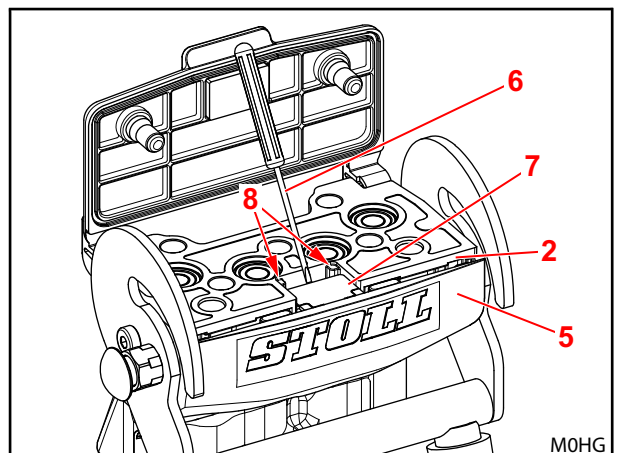
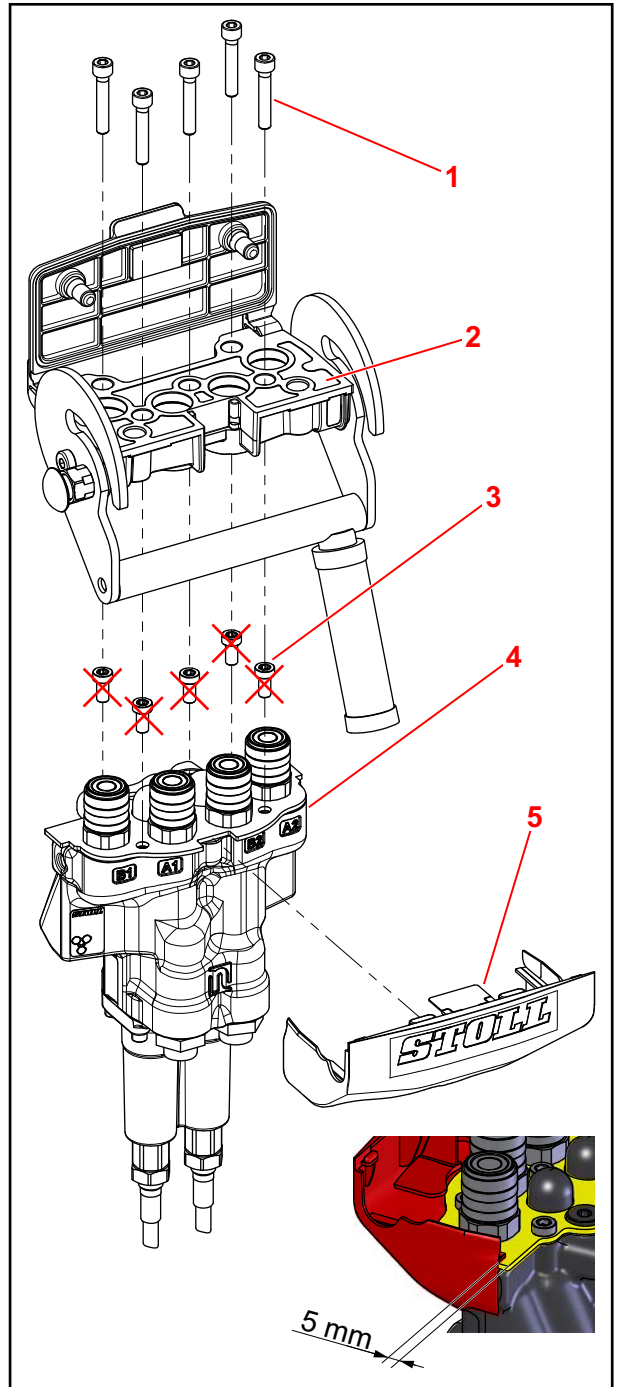
Necessary tool

Allen key SW6

Screwdriver


4.4.1 Mounting without electricity


- Unscrew the 5 screws (3) on the valve.
- Remove the strap on the cover (5).
- Slide the cover (5) on the valve (4) until it is about 5 mm from the edge of the sheet.
- Slide the lower part of the Hydro-fix (2) on the valve, but not quite to the bottom.
- Carefully raise the bracket (7) with a screwdriver (6) and slide the cover (5) completely so that the bracket (7) rests on the two supports (8). (Bottom image)
- Slide the lower part of the Hydro-fix (2) on fully.
- Secure the lower part of the Hydro-fix sub-section (2) with the 5 screws M8x45 (1):
 - First tighten the middle screw
 - Tighten the screws evenly.



4.4.2 Mounting with integrated electrical interface

- Unscrew the 5 screws (4) on the valve (5).
- Remove the strap on the cover (6). (see Pos. 7 on the previous page).
- Slide the cover (6) on the valve (5) until it is about 5 mm from the edge of the sheet.
- Insert electrical connectors (3) on the cover (6), lay the cable (7) laterally.

 The groove of the connector (3) points to the lower part of the Hydro-fix (2), the spring for the cover (6).

 Make sure that you do not crush the cable!

- Slide the lower part of the Hydro-fix (2) on the valve, but not quite to the bottom.
- Set the plug connector (3) at a slight angle, so that it slides when the cover and the upper part of the Hydro-fix are guided into the guides and supports (see arrows in the picture below).
- Slide the cover (6) on completely, at the same time gently press the lower part of the Hydro-fix (2).
- Secure the lower part (2) of the Hydro-fix with the 5 screws (1):
 - First tighten the middle screw
 - Tighten the screws evenly.

