

Sideshifts

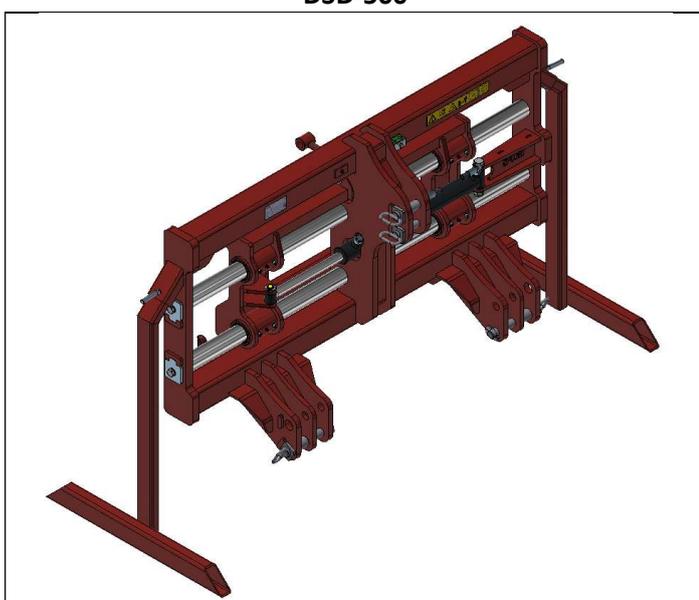
DSD-500/DSD-600/DSD-Z-500



DSD-500



DSD-600



DSD-Z-500



English

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1 To the user

1.1 Introduction

The aim of this manual is to inform users about the commissioning, use and maintenance of their new WIFO sideshift. Also included in this manual are a number of safety instructions to create a safe working environment.

At WIFO-Anema B.V. we aim to continuously improve our products. WIFO-Anema B.V. reserve the right to introduce any changes and improvements deemed necessary without prior notice.

Please read the manual thoroughly and observe the safety procedures before putting the unit into operation. Contact your dealer for any further questions or concerns you may have.

We trust that your WIFO sideshift will provide many years of useful service.



ATTENTION:

Carefully read this manual before you put the machine into operation and act upon all directions that are given. This is to guarantee its safe, trouble-free operation.

Keep this manual in a safe place for future reference!

WIFO-Anema B.V.

Dealer:

1.2 Language and translations

This manual is a translation of the original Dutch version. In case of discrepancies between translations and the Dutch version, the Dutch text prevails.

1.3 Safety precautions and warnings

Please read this manual before you put the machine into operation for the first time, and observe the safety instructions at all times. The most important instructions are marked with a symbol.

	<p><i>This symbol is used for all important safety instructions throughout this manual. Carefully observe the instructions and be very cautious.</i></p>
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	<p><i>This symbol is used for all important actions that should not be carried out under any circumstances. Carefully observe these prohibitions.</i></p>
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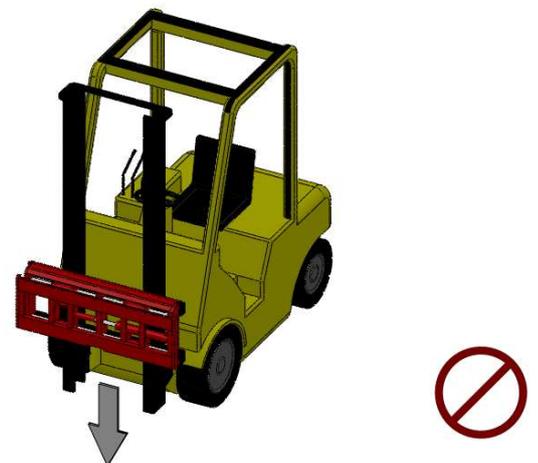
Any person in charge of the commencement of operation, the operation itself or the maintenance of the machine is urged to carefully read and observe the following instructions.

1.3.1 Safety precautions

The following safety instructions apply to all types of WIFO sideshifts. No distinction is made with regard to the type of lifting vehicle used.



Persons must not stand below the sideshift with the load. Make sure that everyone stays out of the working area of the sideshift.



Keep the load on the sideshift as low as possible during transportation to maximize the stability of the tractor/lifting vehicle.



Do not allow anyone to hitch a ride on the sideshift.

The sideshift must only be operated from the driver's position in the vehicle. Ensure that there is adequate visibility of the work activities from this position.

Make sure the operating lever for side-shifting is not mixed up with any other operating lever to prevent inadvertent side-shifting.

Make sure the hydraulic hoses and any power cables do not get jammed and that the sideshift is able to move freely.

Ensure that the vehicle's tires are adequately inflated in order to optimize the stability and steering of the vehicle/sideshift combination. Account must be taken when working on rough ground or on slopes. Use counterweights and/or double tires if necessary.

The sideshift must be placed in its lowest position when parking the lifting vehicle. Ensure that the sideshift cannot make any unintended movements while the vehicle is not in use.

Place the sideshift with the front on a flat, stable surface after it has been removed from the forklift truck / mast for storage.

1.3.2 Safety stickers and warning signs

	<p>A safe working environment also requires personnel to be well-informed about the various safety stickers on the machine. Be aware of the hazards they warn you to look out for.</p> <p>Replace any loose, illegible or missing stickers.</p>
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Several safety stickers have been put onto the machine. The meaning of the stickers on this machine is as follows:

				<table border="0"> <tr> <td style="text-align: center;">(NL)</td> <td>Het totaal van de massa van de machine en de lading mag de hefcapaciteit niet overschrijden.</td> </tr> <tr> <td style="text-align: center;">(D)</td> <td>Gewicht Anbaugerät und Last zusammen, darf Tragfähigkeit nicht überschreiten.</td> </tr> <tr> <td style="text-align: center;">(F)</td> <td>La capacité de levage doit être supérieure au total de la masse de la machine et du chargement.</td> </tr> <tr> <td style="text-align: center;">(GB)</td> <td>The weight of the attachment together with the load may not exceed the lifting capacity.</td> </tr> </table>	(NL)	Het totaal van de massa van de machine en de lading mag de hefcapaciteit niet overschrijden.	(D)	Gewicht Anbaugerät und Last zusammen, darf Tragfähigkeit nicht überschreiten.	(F)	La capacité de levage doit être supérieure au total de la masse de la machine et du chargement.	(GB)	The weight of the attachment together with the load may not exceed the lifting capacity.	<table border="0"> <tr> <td style="text-align: center;">(NL)</td> <td>Zet de machine in de laagste stand indien deze niet gebruikt wordt.</td> </tr> <tr> <td style="text-align: center;">(D)</td> <td>Die Maschine muß sich in der untersten Position befinden bei Nichtgebrauch.</td> </tr> <tr> <td style="text-align: center;">(F)</td> <td>La machine soit sur la position la plus basse lorsque la machine n'est pas utilisée.</td> </tr> <tr> <td style="text-align: center;">(GB)</td> <td>The machine should be in the lowest position when the machine is not used.</td> </tr> </table>	(NL)	Zet de machine in de laagste stand indien deze niet gebruikt wordt.	(D)	Die Maschine muß sich in der untersten Position befinden bei Nichtgebrauch.	(F)	La machine soit sur la position la plus basse lorsque la machine n'est pas utilisée.	(GB)	The machine should be in the lowest position when the machine is not used.
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(GB)	The machine should be in the lowest position when the machine is not used.																				

Figure 1.3-1 Safety stickers WIFO

1.3.3 Location of the safety stickers on the machine

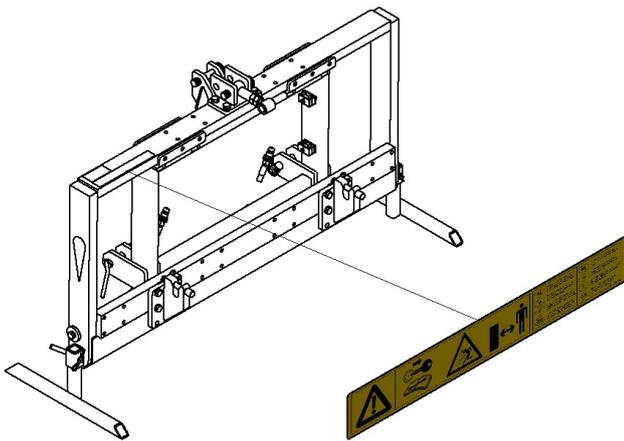


Figure 1.3-2 Location safety stickers DSD-500

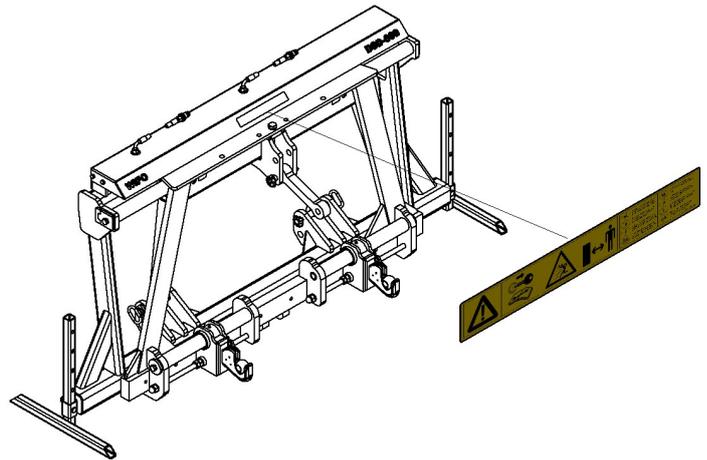


Figure 1.3-3 Location safety stickers DSD-600

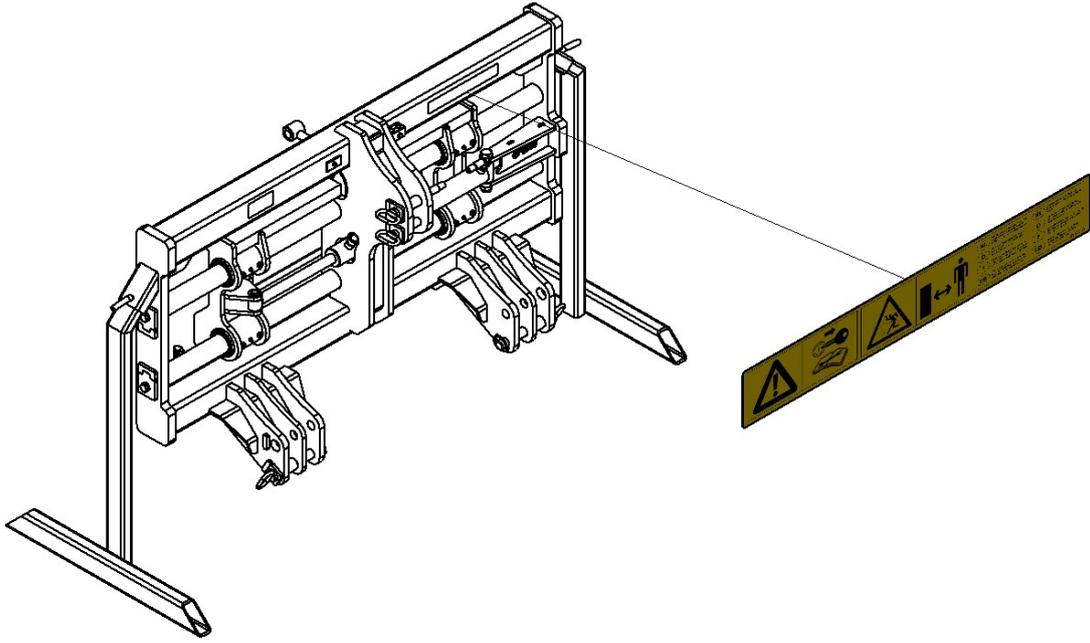


Figure 1.3-4 Location safety stickers DSD-Z-500

1.4 Purpose of use

WIFO sideshifts are suitable only for the transportation and side-shifting of pallets and boxes.

The WIFO **DSD-500/DSD-600** sideshifts are suitable for use on tractors with a standard cat. II three-point hitch, provided that the total weight of the sideshift and the attached equipment does not weigh more than 1500kg for the DSD-500 and 3000kg for the DSD-600. This type of sideshift can also be used in combination with a PTO.

The WIFO **DSD-Z-500** sideshifts are suitable for use on tractors with a standard cat. II three-point hitch, provided that the total weight of the sideshift and the attached equipment does not weigh more than 4000kg. This type of sideshift can not be used in combination with a PTO.

	<p>ATTENTION: <i>The capacity of the forklift truck or lifting mast must exceed the total mass of the sideshift, box or pallet and load. The forklift truck or lifting mast must be equipped with a double action hydraulic connection at the fork carrier, as a minimum.</i></p>
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Do not use the sideshift for carrying people under any circumstances!

1.5 Liability

Any person working with or on the machine must have read this manual. The machine is to be used for its intended purpose only. Included in the intended purpose are, among other things:

1. Work must be carried out in accordance with the directions and within the functional restrictions (e.g. maximum hydraulic working pressure) as outlined in the regulations. Use only sound and appropriate tools.
2. Electric/electronic equipment and accessories (e.g. cables) must be treated in accordance with the general accepted policy for using non-waterproof portable electric and electronic equipment, such as:
 - a) Storing and keeping in a clean, dry environment away from rodents and the like; and
 - b) Protecting the equipment against severe, uncushioned shocks and water (precipitation).
3. Use only original or compatible spare parts. Such parts must be assembled as directed (e.g. by observing the recommended tightening moments). Spare parts (as well as lubricants) are considered compatible only if explicitly approved by WIFO or in the event that the customer is able to prove they possess the required properties for the purpose(s) they are used.
4. Use only lubricants that meet the specifications as described in the directions.
5. Always observe the local regulations in terms of accident prevention, safety, traffic and transport.
6. Only trained personnel with knowledge of the possible hazards have permission to work with/on the machine.
7. WIFO-Anema B.V. will assume no liability in any shape or form for losses or damage caused following modifications to the machine, which have not been explicitly approved by WIFO.

	<p><i>Noncompliance with the rules and directions from this manual will be considered as serious negligence, for the consequences of which WIFO-Anema B.V. accepts no liability whatsoever. In such cases, the user will bear the full risk of his actions.</i></p>
	<p><i>WIFO-Anema B.V. is continuously working on the improvement of its products. For that reason, WIFO-Anema B.V. reserves the right to introduce any changes and improvements deemed necessary without prior notice. However, it does not imply an obligation to make any such changes or improvements to machines bought by customers in the past.</i></p>

1.6 Warranty

WIFO-Anema B.V. guarantees the soundness of its products in terms of materials used and/or structural defects. However, in any event this warranty is limited to the free-of-charge replacement or repairs of the defect product, or part thereof. WIFO-Anema B.V. assumes no liability for any loss or damage arising from faulty deliveries and/or the breakdown of purchased goods before the warranty period has expired. **The warranty period for this product is twelve months.**

2 Technical Data

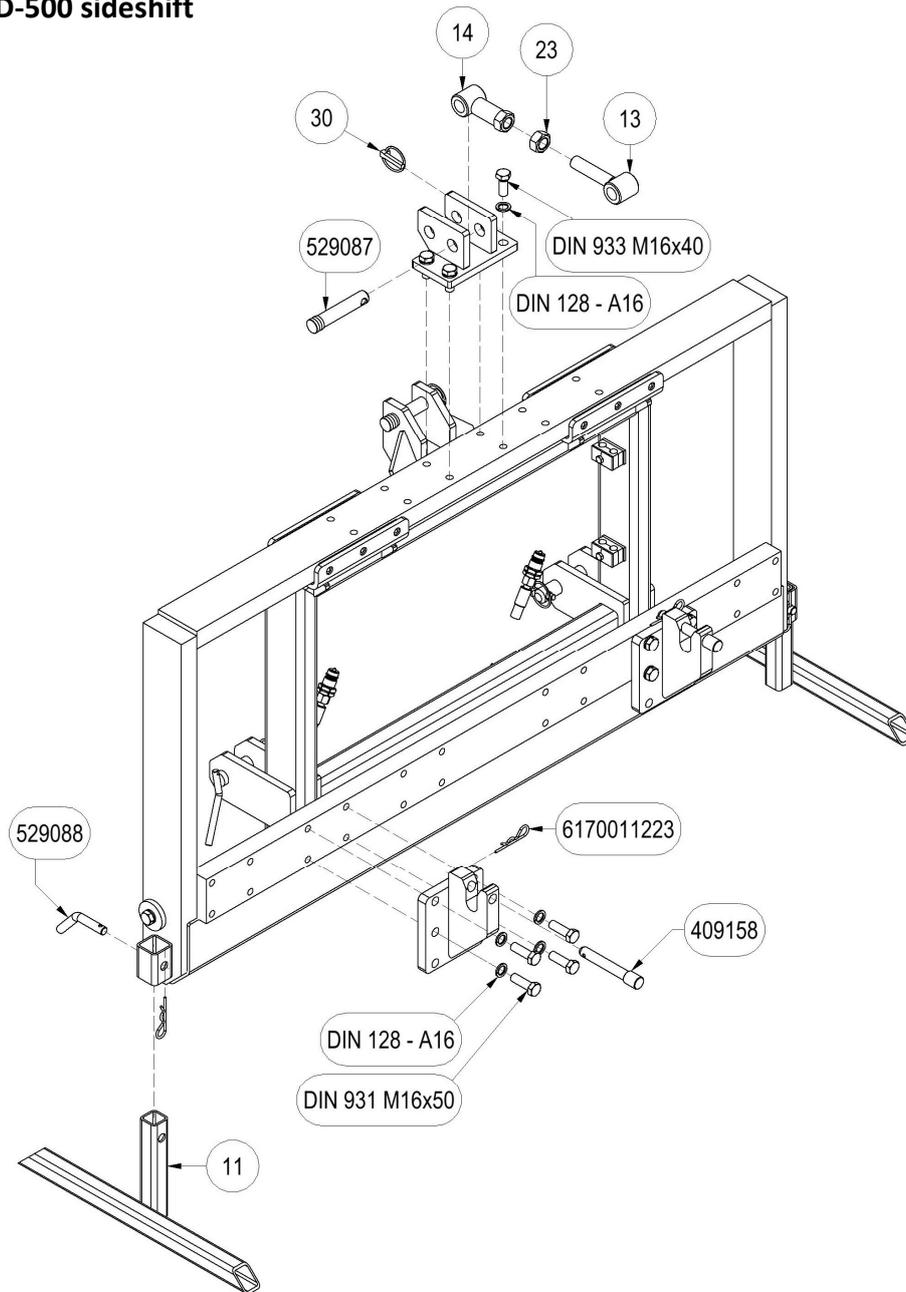
2.1 General technical data

Type	DSD-500	DSD-600	DSD-600	DSD-Z-500	DSD-Z-500
Linkage	Cat. II	Cat. II	Cat. III	Cat. II	Cat. III
Max. working pressure	18 Mpa (180 bar)	18 Mpa	18 Mpa	18 Mpa	18 Mpa
Width	1600 mm	2200 mm	2200 mm	1610 mm	1750 mm
Height	850 mm	1100 mm	1100 mm	885 mm	885 mm
Sideshift-stroke ¹	250/500mm	300/600mm	300/600mm	250/500mm	250/500mm
Frontal extension length	310 mm	310 mm	310 mm	470 mm	500 mm
Max. load	1500 kg	3000 kg	3000 kg	4000 kg	4000 kg
Weight	285 kg	535 kg	545 kg	450 kg	500 kg

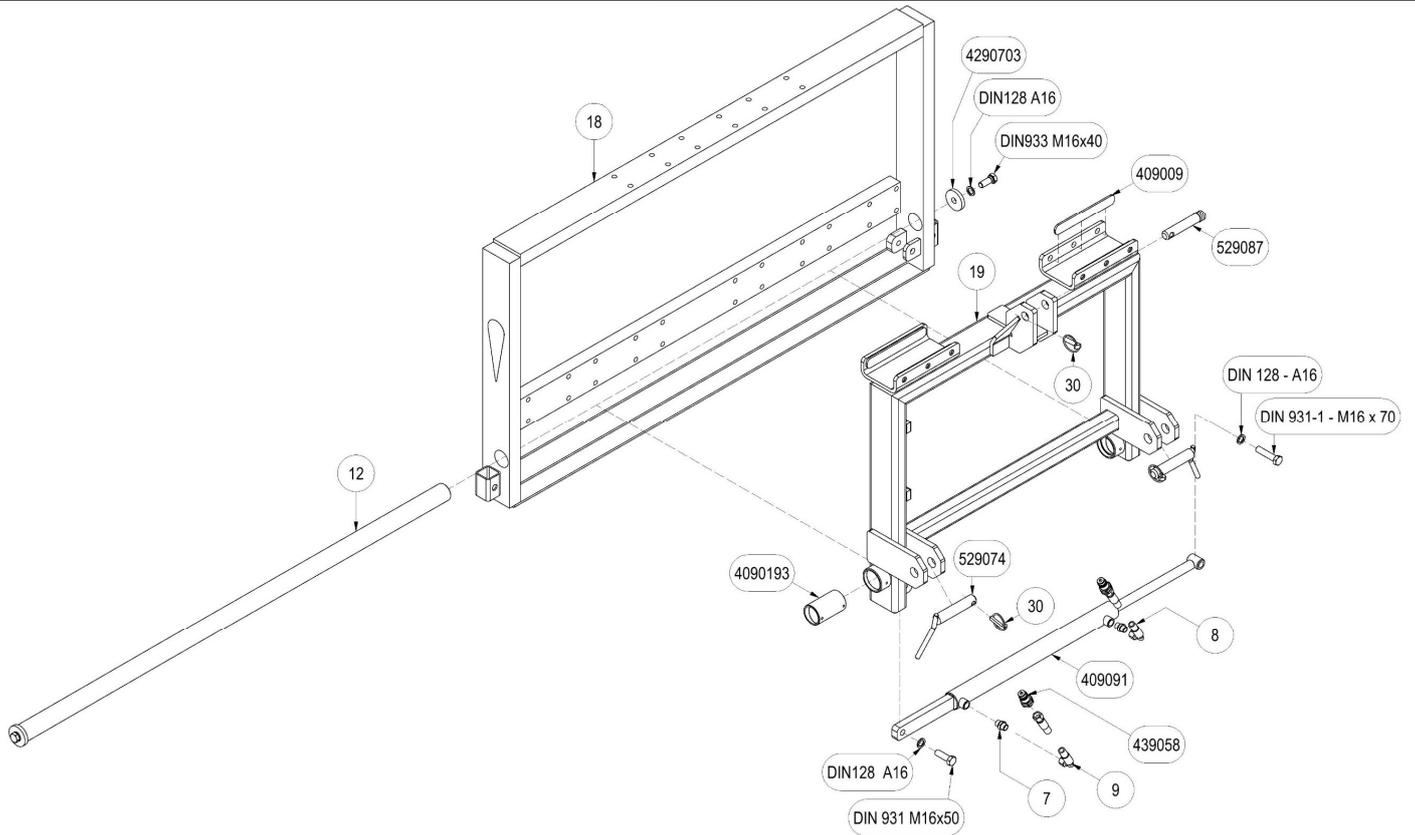
Figure 2.1-1 DSD sideshifts for tractors

¹ Sideshift-stroke is adjustable on the frame of the sideshift. The stroke can be adjusted as 500mm to the left or 500mm to the right, or 250mm to the left and right.

2.2 Parts list DSD-500 sideshift



Description	Sparepartnummer
Support leg DSD-500	11
Screw head top rod DSD	13
Threaded bush top rod DSD	14
Taper bolt	20
Spring washer	22
Nut 8.8 M24 galvanized	23
Bolt 8.8 M16x50 galvanized	25
Locking clip 9x11x45 mm galvanized	30
Pivot pin (I) - R19 - L150	409158
Support leg pin M&S	529088
Top pin (I) - R19 - L076	529087
Locking pin 4 mm single galvanized	6170011223



Description	Sparepartnummer
Straight coupling 12L - G 3/8"	7
Hydraulic hose 2500	8
Hydraulic hose 2100	9
Guide shaft DSD-500	12
Shift-frame DSD-500	18
Fixed frame frame DSD-500	19
Taper bolt	20
Spring washer	22
Bolt 8.8 M16x70 galvanized	24
Bolt 8.8 M16x50 galvanized	25
Locking clip 9x11x45 mm galvanized	30
Washer $\varnothing 60 \times 10$ hole $\varnothing 17$	4290703
Wear strip lift masts	409009
Quick coupling 1/2" male M18	439058
Cylinder DW 40-25-500 DSD-500	409091
Top pin (I) - R19 - L076	529087
Locking pin (II) - 28 - L123	529074
Bronze bearing	4090193

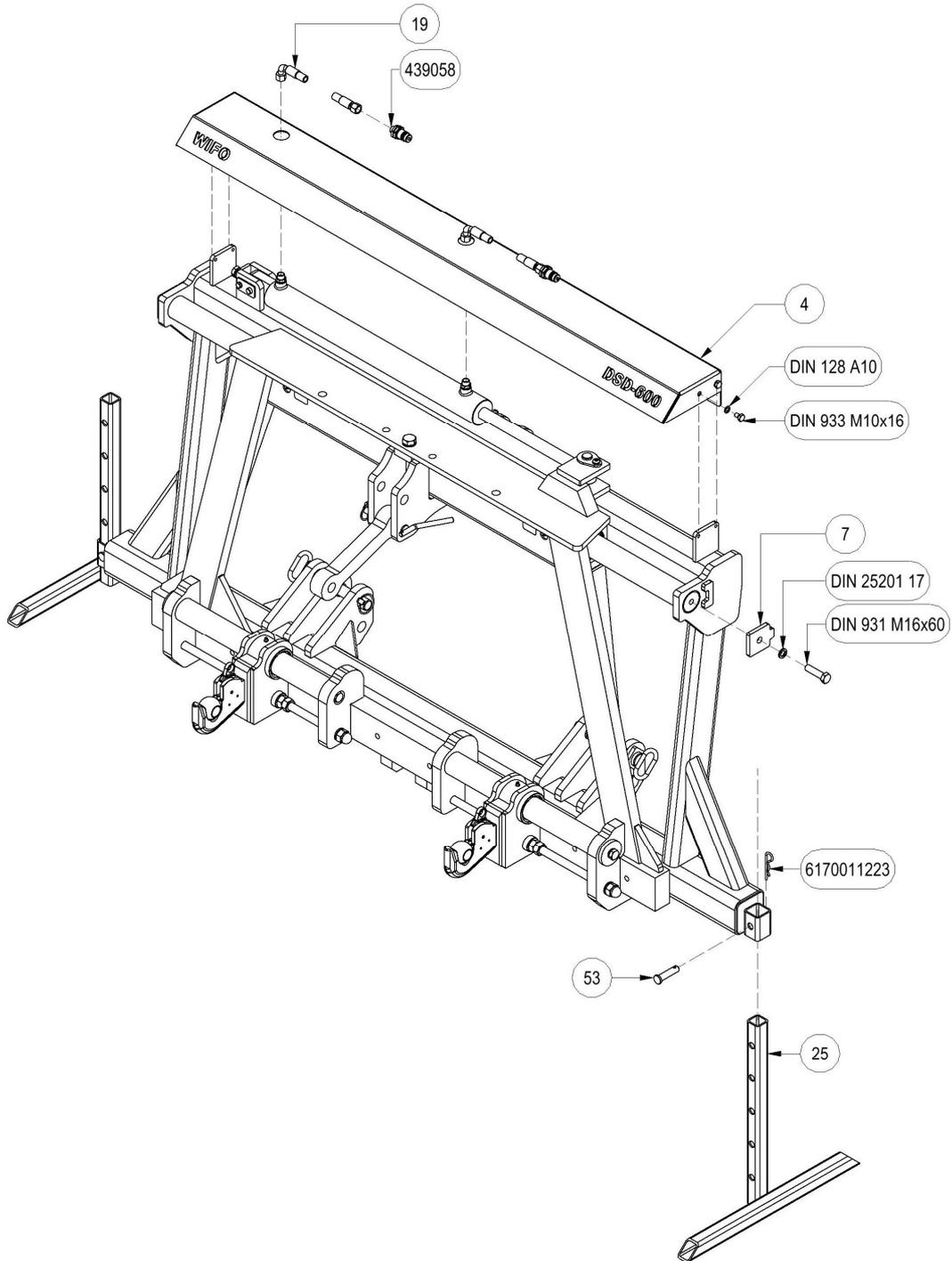
2.2.1 Commissioning DSD-500 sideshift

The following instructions apply to a standard cat. II three-point hitch:

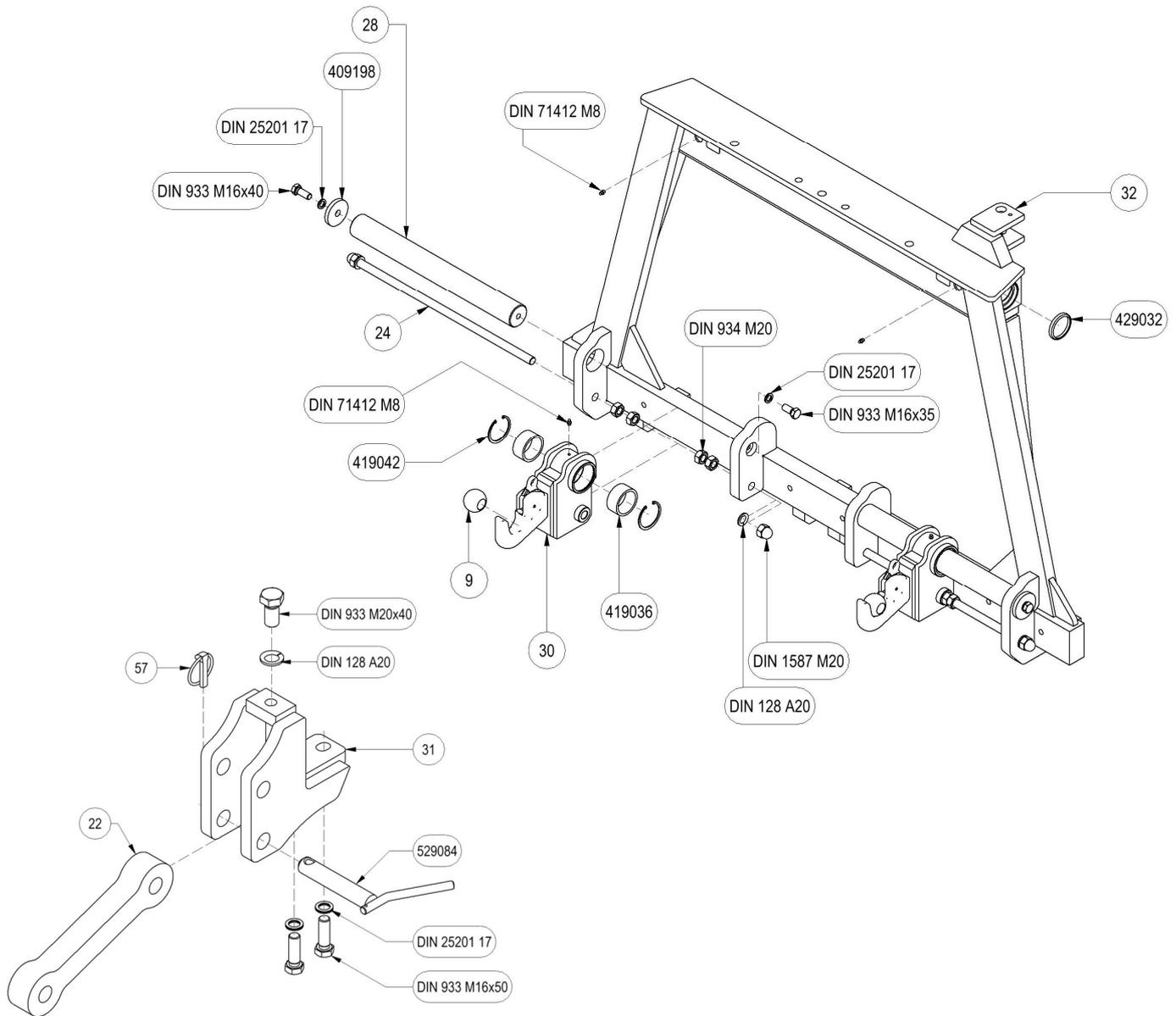
1. Make sure that the lifting arms of the three-point hitch are on the same level.
2. Attach the sideshift to the cat. II three-point hitch of the tractor. Use proper pins and locking clips.
3. Place the sideshift as horizontal as possible by adjusting the top link.
4. The lateral backlash of the sideshift in the three-point hitch should be kept to a minimum. Adjust this with the stabilizers of the three-point hitch
5. Connect the hydraulic hoses of the sideshift to the dual-action connection on the tractor.
Make sure the hydraulic hoses are clean to prevent any debris from entering the hydraulics of the machine.
6. Subsequently check that the hydraulic hoses can move freely and check that the system is not leaking oil.
7. The desired machine can now be attached to the sideshift using the mounting brackets and top link.
8. Check the correct operation of the sideshift by controlling the hydraulic functions.

The WIFO DSD sideshift is now ready to be used.

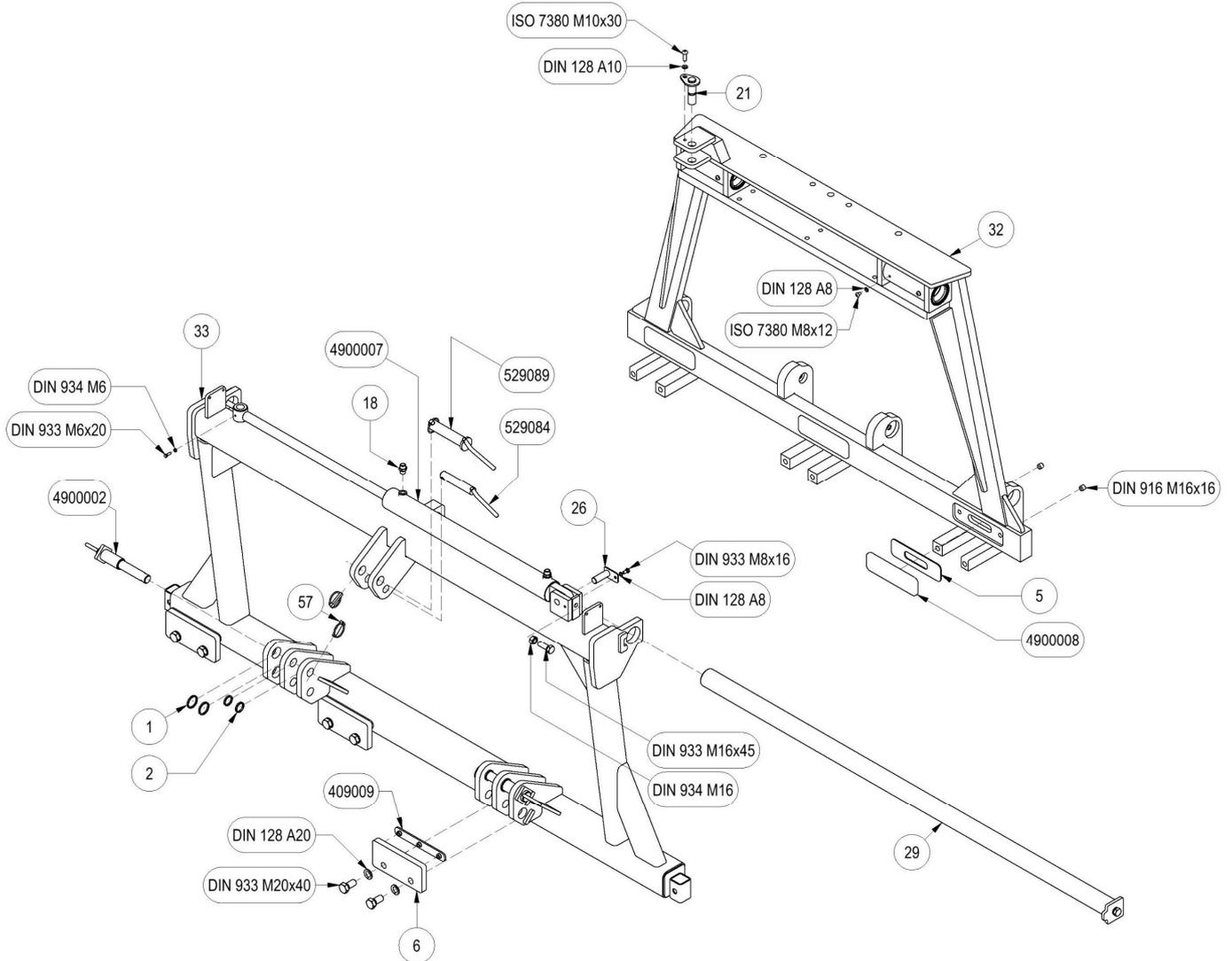
2.3 Parts list DSD-600 sideshift



Description	Sparepartnummer
Cover plate DSD-600 NM	4
Axle bolt plate	7
Hydraulic hose 1800 31 W18-W18/90'	19
Support leg DSD-600	25
Support leg pin - R16 - L65	53
Quick coupling 1/2" male M18 external	439058
Locking pin 4 mm single galvanized	6170011223



Description	Sparepartnummer
Lift ball II Cat. 2/2 / Lift ball Cat. 3/3	9
Top link Cat. II DSD-600 / Top link Cat. III DSD-600	22
Thread M20 locking bolt catch hook DSD-600	24
Catch hook axle DSD-600	28
Catch hook holder Cat. II DSD-600	30
Top link block DSD-600	31
Shift frame DSD-600	32
Locking clip 9x11x45 mm galvanized	57
Retaining ring Ø70x10 hole 17	409198
Bearing VV-35	419036
Shaft wiper axis Ø60	429032
Internal circlip Ø72x2.5	419042
End pieces (II) – 25 – L123	529084



Description	Sparepartnummer
Spacer ring support pin DSD-Z large	1
Spacer ring support pin DSD-Z	2
Pressure plate slide strip DSD-600	5
Clamping plate slide strip shift frame DSD-600	6
Cylinder pin head DSD-600	21
Locking pin cylinder DSD-600	26
Guide shaft 1800 DSD-600	29
Shift frame DSD-600	32
Fixed frame DSD-600	33
Locking clip 9x11x45 mm galvanized	57
Slide strip DSD-600	4900008
Wear strip lift masts	409009
Straight coupling 12L – G 3/8"	4290468
Support pin Cat. II-III DSD-Z-500	4900002
DW 60-30-600 (DSD-600)	4900007
End pieces (III) – 31.5 – L150 (complete)	529089

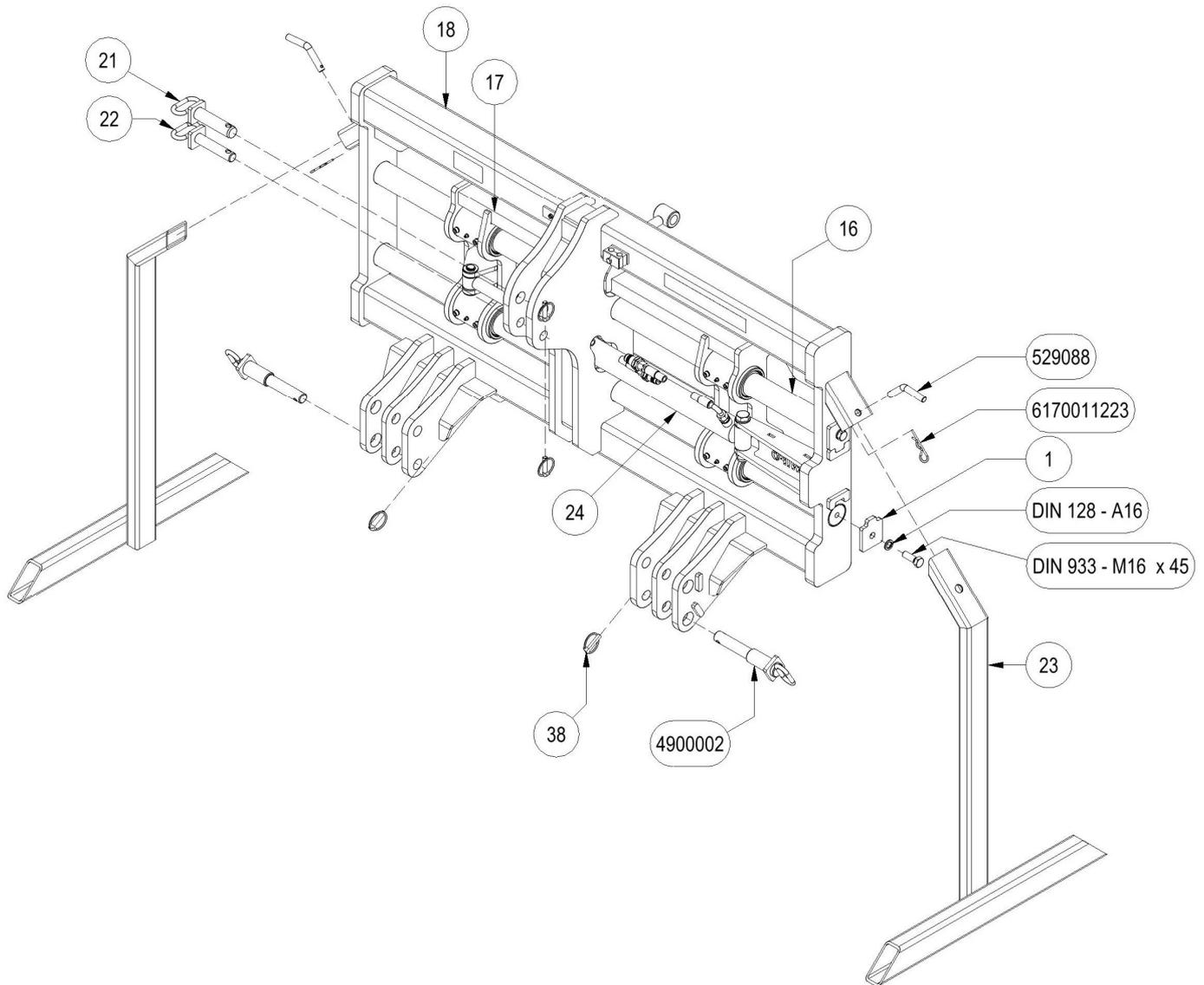
2.3.1 Commissioning DSD-600 sideshift

The following instructions apply to a standard cat. II three-point hitch:

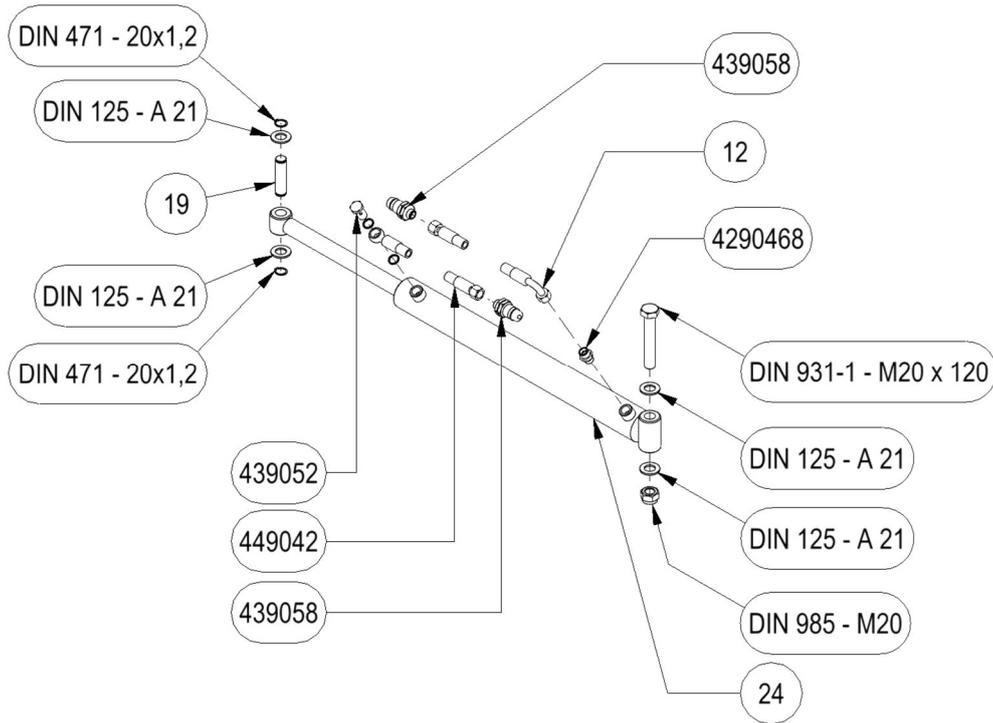
1. Make sure that the lifting arms of the three-point hitch are on the same level.
2. Attach the sideshift to the cat. II three-point hitch of the tractor. Use proper pins and locking clips.
3. Place the sideshift as horizontal as possible by adjusting the top link.
4. The lateral backlash of the sideshift in the three-point hitch should be kept to a minimum. Adjust this with the stabilizers of the three-point hitch
5. Connect the hydraulic hoses of the sideshift to the dual-action connection on the tractor.
Make sure the hydraulic hoses are clean to prevent any debris from entering the hydraulics of the machine.
6. Subsequently check that the hydraulic hoses can move freely and check that the system is not leaking oil.
7. The desired machine can now be attached to the sideshift using the mounting brackets and top link.
8. Check the correct operation of the sideshift by controlling the hydraulic functions.

The WIFO DSD sideshift is now ready to be used.

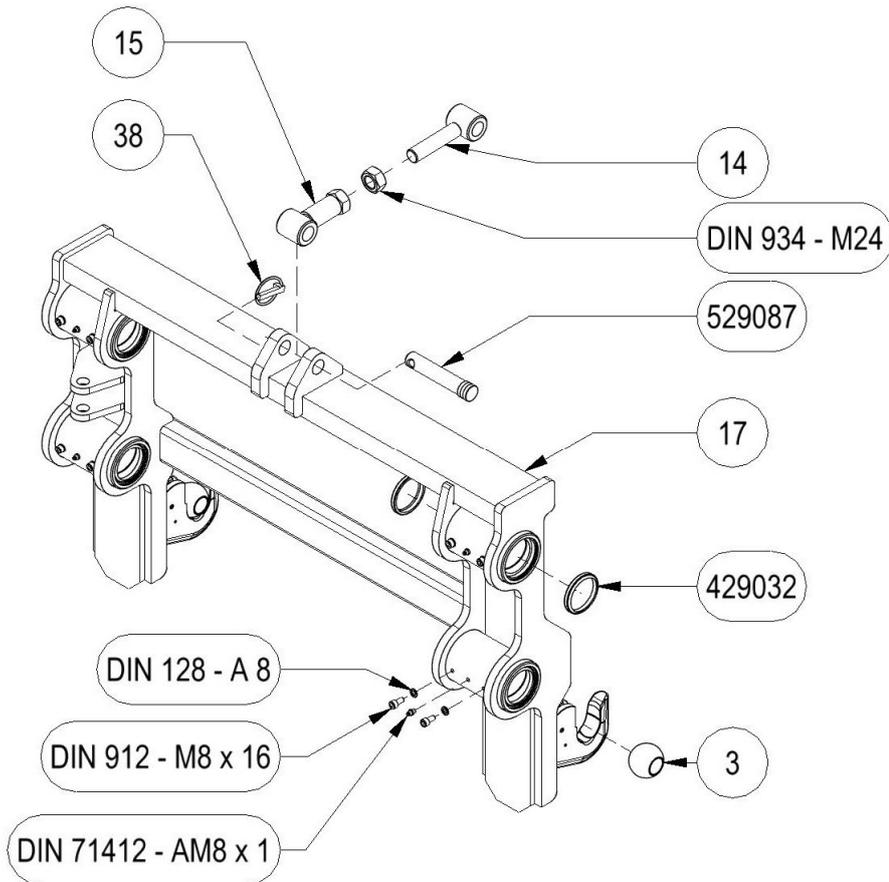
2.4 Parts list DSD-Z-500 (Category II/III)



Description	Sparepartnummer
Axle bolt plate	1
Guide shaft DSD-Z-500 Cat. II / Guide shaft DSD-Z-500 Cat. III	16
Shift frame DSD-Z-500 Cat. II / Shift frame DSD-Z-500 Cat. III	17
Fixed frame DSD-Z-500 Cat. II / Fixed frame DSD-Z-500 Cat. III	18
End pieces Cat. III DSD-Z-500	21
End pieces Cat. II DSD-Z-500	22
Support leg DSD-Z-500	23
Hydraulic cylinder 50-30-500 DSD-Z-500	24
Locking clip 9x11x45 mm galvanized	38
Support pin Cat. II-III DSD-Z-500	4900002
Support leg pin	529088
Locking pin 4 mm single galvanized	6170011223



Description	Sparepartnummer
Hydraulic hose 2100 31 W18-W18/90	12
Cylinder pin shift frame DSD-Z-500	19
DW Cylinder 50-30-500 DSD-Z-500	24
Banjo bolt HBR 3/8"	439052
Hydraulic hose 1800 31 H18-W18	449042
Quick coupling 1/2" male M18 external	439058
Straight coupling 12L - G 3/8"	4290468



Description	Sparepartnummer
Lift ball Cat. 2/2	3
Screw head Cat. II / Screw head Cat. III	14
Threaded bush Cat. II / Threaded bush Cat. III	15
Shift frame DSD-Z-500 Cat. II	17
Locking clip 9x11x45 mm galvanized	38
End pieces (I) – R19 – L076	529087
Shaft wiper Ø60	429032

2.4.1 Commissioning DSD-Z-500 sideshift

The following instructions apply to a standard cat. II three-point hitch:

1. Make sure that the lifting arms of the three-point hitch are on the same level.
2. Attach the sideshift to the cat. II three-point hitch of the tractor. Use proper pins and locking clips.
3. Place the sideshift as horizontal as possible by adjusting the top link.
4. The lateral backlash of the sideshift in the three-point hitch should be kept to a minimum. Adjust this with the stabilizers of the three-point hitch
5. Connect the hydraulic hoses of the sideshift to the dual-action connection on the tractor.
Make sure the hydraulic hoses are clean to prevent any debris from entering the hydraulics of the machine.
6. Subsequently check that the hydraulic hoses can move freely and check that the system is not leaking oil.
7. The desired machine can now be attached to the sideshift using the mounting brackets and top link.
8. Check the correct operation of the sideshift by controlling the hydraulic functions.

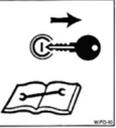
The WIFO DSD sideshift is now ready to be used.

3 Maintenance and troubleshooting

This manual contains the necessary safety instructions for maintenance work on the machine. Compliance with these instructions is mandatory to ensure personnel safety and to keep the machine in optimal condition.

3.1 General safety regulations

It is mandatory to wear personal protective equipment (PPE) when performing maintenance work on the machine. This is to protect against potential hazards such as mechanical risks, sharp edges, hot surfaces, and harmful substances.

  	<p><u>N.B.</u> <i>Please read the instruction manual prior to any maintenance to the machine. Turn off the engine and remove the key from the ignition while maintenance is carried out on the machine!</i></p>
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3.2 Required personal protective equipment (PPE)

Maintenance staff must wear at least the following PPE:

- **Safety goggles** - To protect against dust, sparks, or flying debris.
- **Gloves** - Suitable for the specific tasks (cut-resistant, heat-resistant, or chemical-resistant gloves, depending on the task).
- **Safety shoes** - With a steel or composite toe cap and a non-slip sole.
- **Hearing protection** - If working in a noisy environment (>80 dB(A)).

3.3 Specific safety measures

- Always ensure that the sideshift is in the lowest position when performing maintenance or repairs on the sideshift.
- Prevent unintentional operation of the cylinder(s) or movement of the sideshift during maintenance by switching off the engine of the lifting device and removing the key from the ignition. Also ensure proper support of the sideshift.
- Additional measures can be taken by disconnecting the hydraulic hoses.
- Prevent unauthorized persons from entering the work zone.
- Use the correct tools and follow the manufacturer's instructions.
- After maintenance, the machine must be checked for proper operation before being put back into service.

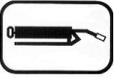
3.4 Compliance and responsibility

- Failure to comply with these PPE regulations may result in serious injuries or harm.
- Employers and employees share responsibility for the proper use of PPE.
- Regularly check whether the PPE is in good condition and replace it if necessary.

3.5 Preventive maintenance and lubrication

After the first 8 working hours:

- Tighten the connections and fittings of the hydraulic lines.
- Tighten all bolts.

	<p><i>This sticker shows the position of a grease nipple on the machine. Lubricate the machine after every 10 working hours. Recommended lubricants include SAE 30 oil and Grade 2 grease based on lithium.</i></p>
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	<p><i>Regularly check the hydraulic section for any leaks. Never try and search for leaks or stop a leak by hand. Liquid under high pressure can easily penetrate skin and clothing, and may cause serious injuries. Replace any damaged hydraulic hoses to prevent them from breaking and any accidents as a result.</i></p>
	<p><i>Regularly check the oil level of the hydraulic system of your forklift truck / tractor!</i></p>

	<p><i>Always use original WIFO parts for replacement in order to comply with the warranty terms and conditions.</i></p>
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EC DECLARATION OF CONFORMITY

(In accordance with the Machinery Directive 2006/42/EC, Annex II, A)

Name: **WIFO-Anema BV**

Address: **Hegebeintumerdyk 37, 9172GP, Ferwert, Nederland**

Telephone: **+31 (0)518411318**

E-mail: **info@wifo.nl**

Declares that the following machine complies with the relevant directives:



Description of the machine:

The **WIFO HM/HMD** lift mast is a hydraulically operated lifting device mounted on the front or rear of a tractor. Using one or two hydraulic cylinders, it is designed to lift and move loads efficiently.

Applied European Directives:

- Machinery Directive 2006/42/EC

Applied Harmonized Standards:

- EN ISO 12100:2010 – General safety principles

Name: **Wytze Anema**

Position: **Managing Director**

A handwritten signature in black ink, appearing to be 'Wytze Anema', written over a horizontal line.

Location: **Ferwert**

Date: **01-01-2025**