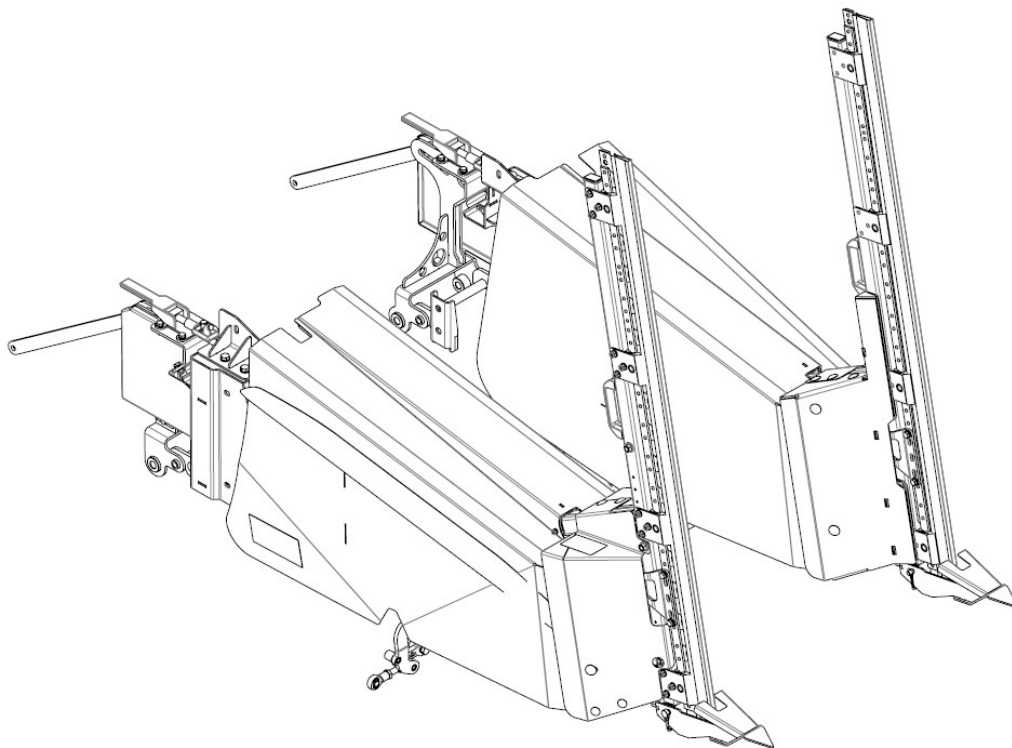




Operating Manual

COMPACT Side Knife



for John Deere Flex Draper Headers
600FD / 700FD / RDF

Masthead

Title: Operating Manual Compact
Manufacturer: Zürn Harvesting GmbH & Co. KG
Schöntal

Applicable to: COMPACT Side Knife for John Deere 600 / 700FD / RDF

Print number: 16286

3rd issue 2022 (Version C)

Editorial date 05/2022

© Zürn Harvesting GmbH & Co. KG

Author: Nicole Trojniar

All rights reserved, also applies to the translation.

No part of this operating manual must be reproduced in any form (print, photocopy or any other process) or processed, duplicated or distributed using electronic systems without the written permission of the Zürn Harvesting GmbH & Co. KG, Schöntal.

We reserve the right to make technical amendments.

Printed on paper made from chlorine-free and acid-free bleached pulp.

Foreword

This machine is designed only for the usual application in agricultural work or similar activities. Any other use beyond this is deemed improper use of the machine. The manufacturer accepts no liability whatsoever for damage resulting from improper use; the risk will be borne solely by the user. Proper use also includes complying with the operation, maintenance and service conditions specified by the manufacturer.

Read this operating manual thoroughly to familiarise yourself with the correct operation and maintenance of the machine and to prevent injuries or damage to the machine. Not doing so can result in injuries or machine damage. This operating manual and the safety labels on the machine may also be available in other languages: please enquire at your dealership.

This operating manual is part of the machine and should be handed over to the purchaser if the machine is re-sold.

Dimensions specified in this operating manual are metric. Use only appropriate parts and bolts. Different spanners are required for metric bolts and bolts with imperial (inch) dimensions.

The designations "left" and "right" are with reference to the forward direction of the machine.

Enter the serial number in the first section of the operating manual. Please record all numbers accurately. In case of theft, these numbers can be important for tracing the machine. Your dealer also needs these numbers when you order spare parts. It is a good idea to keep a second record of these numbers in another location.

Your dealer has carried out an inspection of the machine prior to delivery. A further inspection should be carried out by your dealer after the first 20 to 50 hours of operation in order to ensure the best possible performance for the machine.

This machine must only be used, serviced and repaired by persons who are familiar with it and who have been briefed about its hazards. The relevant accident prevention regulations and other generally recognized rules and laws for safety, occupational health and road traffic must also be observed. Unauthorized changes to this trailer release the manufacturer from liability for any resulting damage.

Contents

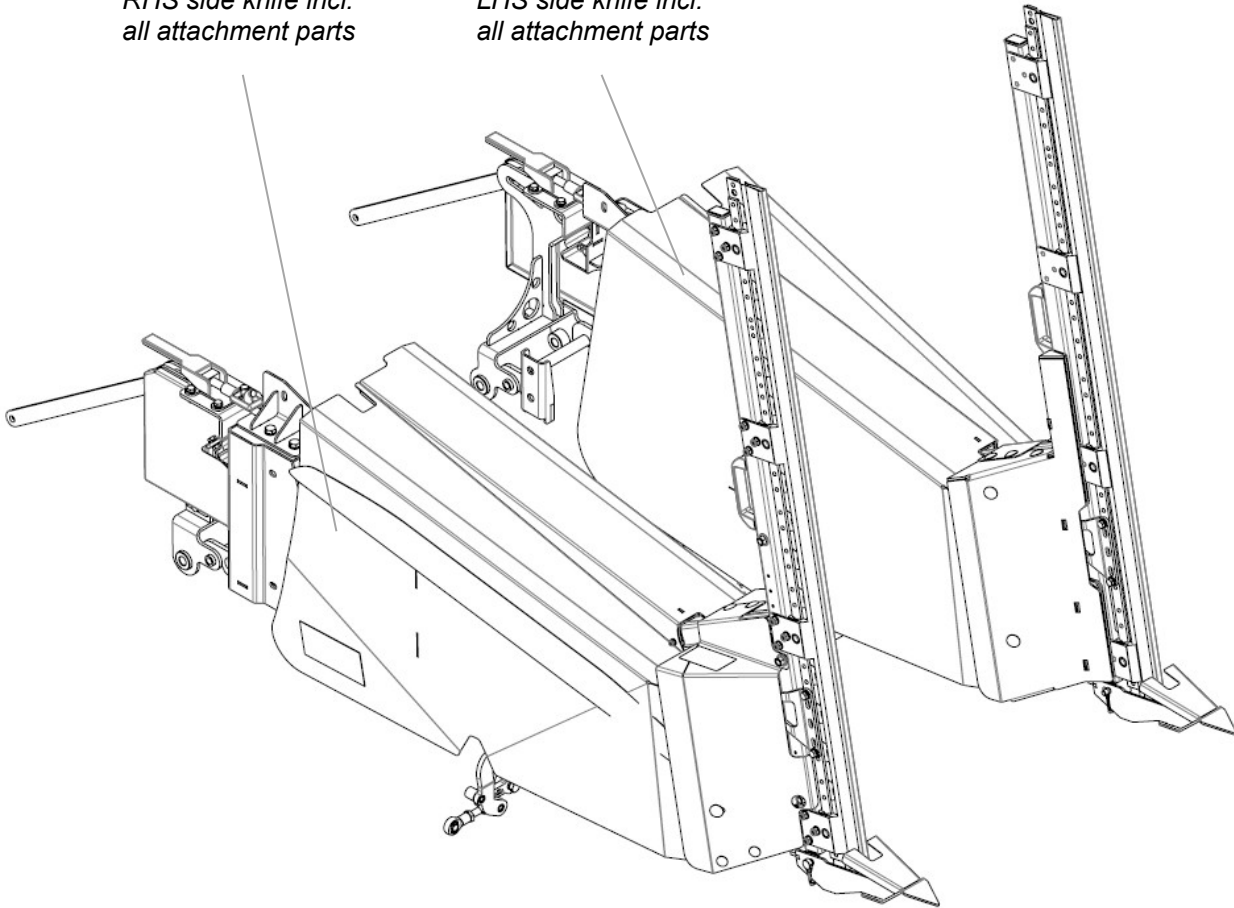
Masthead	2
Foreword	3
Contents	4
Description	6
Type Plates	7
Safety Instructions	8
Safety instructions for technical staff and operators	9
Hydraulic system	9
Universal drive shafts	11
Precautions for use and shunting	12
Precautions for maintenance and repair work	12
Modifications to the machine	13
Welding	13
Bolted assemblies	13
Using original parts	14
Waste prevention	14
Safety decals	15
Inspection before Delivery	17
Initial Installation	18
Initial assembly to John Deere cutting platform	18
Reinforcement (welding) of the float arms	18
Side Knife mount to cutting platform	18
Header adjustment	19
Float arm assembling	20
Remove crop divider	20
Divider disassembly	21
Mounting quick-change bracket for divider	21
Mounting quick change divider	22
Mounting fastening bracket	22
Single Drive assembly	23
Side knife	23
Cover plate	24
Knife head assembly	24
Single Drive Assembly knife connector right	25
Roller guide assembly	26
Side knife attachment	27
Side knife drive LHS and RHS assembly	28
Cover	29
Crop Conversion	30
Spare Parts List	31
Side Knife complete LHS	32
Side Knife complete RHS	33
Side Knife LHS	34
Side Knife RHS	36

Cutterbar	38
Knife	40
Cover LHS	42
.....	42
Cover RHS	44
Sliding block	46
Divider Quick Change LHS	48
Divider Quick Change RHS	50
Quick Change Support LHS	52
Quick Change Support RHS	54
Drive shaft	56
Drive Unit	57
Drive Rod	58
Drive Unit	59
Divider	60
Knife Head	61
Option Single Drive	62
Knife Guide Single Drive	64
Roll Assembly	66
Decals	67
Float Arm Support Reinforcements Kit	68
Maintenance	69
General service and maintenance instructions	69
Lubrication and Oils	71
Position of Lubrication Points	73
Torques for metric bolts	74
Faults and Troubleshooting	75
General terms of guarantee	76
EU Certificate of Conformity	78

Description

*RHS side knife incl.
all attachment parts*

*LHS side knife incl.
all attachment parts*



Type Plates

Please make a note of the type designation and serial number of your machine here. This information must be given to the authorised dealer when ordering spare parts or making guarantee enquiries.

Type: _____

Serial number: _____

CE	Zürn Harvesting GmbH & Co. KG Kapellenstr. 1 D-74214 Schöntal-Westernhausen Tel. +49 7943/9105-0		ZÜRN HARVESTING	
	Typ Variante	<input type="text"/>		<input type="text"/>
	Bezeichnung	<input type="text"/>		
	Serien-Nr.	<input type="text"/>		
	Baujahr	<input type="text"/>	<input type="text"/>	Made in Germany www.zuern.de

Safety Instructions

Explaining the symbols used in this document

This symbol indicates a potentially hazardous situation which, if not avoided, may lead to personal injury.



This symbol indicates special rules or procedures that need to be observed to avoid machine damage.



This symbol indicates special technical instructions.



The illustrations in this manual are used as examples and may differ from the product. All information and data are subject to change by the manufacturer alone without prior notice.

Safety Instructions

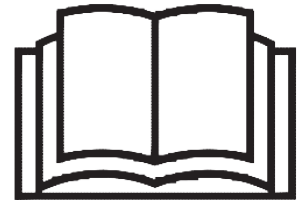
Safety instructions for technical staff and operators

Before using the machine, carefully read and observe all safety rules listed in this manual and observe all decals on the machine.

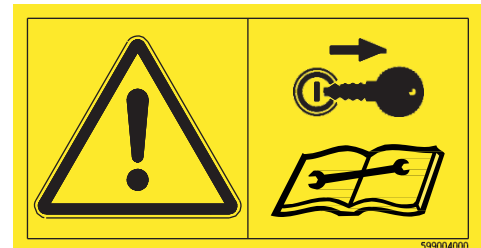
Before starting work, make sure that you are familiar with all mechanisms and controls and their functions. During operation is too late!

Never leave the machine to anyone who has not been trained in using and operating it properly.

Contact your Zürn sales partner if you have problems understanding certain parts of this manual.



Always apply the handbrake on the header transporter and shut off the engine of the towing vehicle before you work on the transporter. Remove the ignition key and wait until all moving parts have come to a complete stop.



Wear close-fitting clothes! Loose clothing can easily get caught in moving machine parts.

Wear protective gear that suits the work at hand (gloves, footwear, goggles, helmet, ear protectors, etc.).

Any ropes, cables, linkages, etc. of remote-controlled mechanisms must be routed and installed in such a way that they do not cause unintentional machine action leading to accidents and damage. This applies to all transport and working positions.

Before each use verify that nuts and bolts are tight - especially those that attach tools such as blades. Retighten if necessary.

Before you use the machine make sure all safety features and guards are in place, in protective position and operable. Immediately replace any inoperable safety features.



Safety Instructions

Hydraulic system

Attention! The hydraulic system is under high pressure. Maximum operating pressure: 200 bar (2900 psi).

Before connecting hydraulic hoses to the hydraulic system of the machine, make certain that it is not pressurised. Before disconnecting hydraulic hoses, depressurise the hydraulic system.

In order to prevent connecting the hydraulic hoses to the wrong connections, colour code the hoses and their respective connections without fail. Risk of injury through reverse function because of reversed connections (e.g. raising instead of lowering).

Inspect the hydraulic hoses at regular intervals. Hydraulic hoses must always be replaced after 5 years at the latest. If hydraulic hoses are found to be damaged or worn, they must be replaced immediately. The replacement hydraulic hoses must comply with the technical requirements specified by the manufacturer.

Only use the appropriate resources when looking for leakages. Protect body and hands against pressurised fluids.

Oil escaping under pressure can puncture the skin and cause severe injuries. In the event of injury, seek medical attention immediately. There is a risk of infection.

Before carrying out any work on the hydraulic system, lower the machine to the ground, depressurise the hydraulic system, switch the engine OFF, remove the ignition key and wait until all moving parts have come to a complete standstill.



Safety Instructions

Universal drive shafts

Only use universal drive shafts that have been provided by or prescribed by the manufacturer.

The protective tube and protective cone on the PTO shaft and all PTO shaft protective devices on the header must be in place and in good condition.

Worn or damaged protective parts must be renewed immediately. Defective protective parts or an unprotected universal drive shaft can cause severe or even fatal injuries.

Always wear close-fitting clothing to prevent being caught up in a rotating universal drive shaft.

Before connecting or disconnecting a universal drive shaft and before any intervention in the header, uncouple the main drive, switch the engine OFF, remove the ignition key and wait until all moving parts have come to a complete standstill.

When using universal drive shafts with and overload or free-wheel clutch, always connect the overload or free-wheel clutch to the machine.

Always make certain that the universal drive shaft is connected and latched in position correctly.

Before switching the PTO shaft ON, make certain that the speed and direction of rotation of the attachment conform with the speed and direction of rotation of the machine specified by the manufacturer.

Before switching the PTO shaft ON, make certain that there are no persons or animals within the machine's danger zone. Never switch the PTO shaft ON or engage it if the forage harvester's motor is switched ON.



Safety Instructions

Precautions for use and shunting

Before changing over from transport to working position and vice versa, ensure that no persons are within the manoeuvring zone of the machine.

Precautions for maintenance and repair work

Before carrying out any work or intervention, shut off the engine, remove the ignition key, wait until all moving parts have come to a complete standstill and apply the parking brake. Depressurise the hydraulic system.

Prop up and secure any machine parts that are raised for maintenance or repair.

Disconnect all electric lines from the towing vehicle before working on the electric system or before welding on the transporter.

Repairs on parts under strain or pressure (springs, accumulators, etc.) must be carried out solely by specialist staff who have the necessary qualification and special tools.

Wear protective gear that suits the work at hand (gloves, footwear, goggles, helmet, ear protectors, etc.).

Do not weld, solder or use flame cutters near pressurised liquids or highly flammable products.

Only use original spare parts to ensure your personal safety and correct functioning of the machine.

We strongly recommend to have the machine and its parts and fastening elements checked by your authorised Zürn Harvesting sales partner after each season.



Safety Instructions

Modifications to the machine

Any modifications to the machine and its optional features must be approved in writing by the manufacturer. The warranty and product liability will be voided, if such modifications are carried out without the written approval of the manufacturer.

The manufacturer's liability refers to the original condition in which the vehicle is delivered to the country of destination as contractually agreed by the manufacturer.

Any unauthorised modifications to this machine render any manufacturer liability for any consequential damage null and void.

Welding

Ensure that any type of welding is carried out by qualified and certified welders. Welding must not affect the warranted properties of the steel structure. In case of non-compliance, the manufacturer shall consider the weldment as an unauthorised modification to the transporter.

Bolted assemblies

Observe the property class when fastening and replacing bolts and nuts (see the table in this manual and the parts list).

After assembling the transporter, tighten all bolts to the proper torque.

For special torques read the assembly instructions or ask the manufacturer.

For any torques of regular bolts refer to the table.

Self-clinching bolts and nuts must be replaced by new ones after they have been removed during a repair.

This is necessary as nuts with a self-clinching fastener lose their holding power with each reuse.

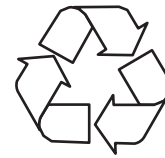
Safety Instructions

Using original parts

Only use original parts sourced from the manufacturer. This is mandatory. Using third-party parts voids the manufacturer warranty including for consequential damage resulting from this.

Waste prevention

Never pour environmentally hazardous products (oils, greases, filters, etc.) into a sink or empty them onto the ground or in other spaces. Never burn or throw away used tyres. Have waste disposed of by specialised disposal companies.



Safety Instructions

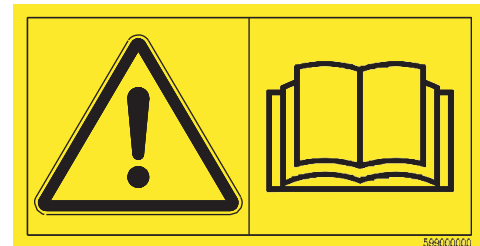
Safety decals

Safety decals are placed in various locations on the machine. Always follow these instructions! The decals alert operators to potential hazards and provide rules of practice to cut out any risk of an accident.

Keep the safety decals clean and legible and replace them immediately when damaged, worn or lost.

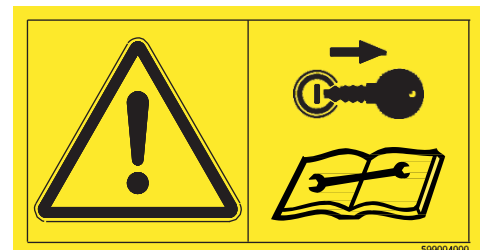
Operating instructions

The operating instructions contain all the necessary information for the safe use of the machine. To avoid the risk of accidents, read the operating instructions carefully and follow all instructions.



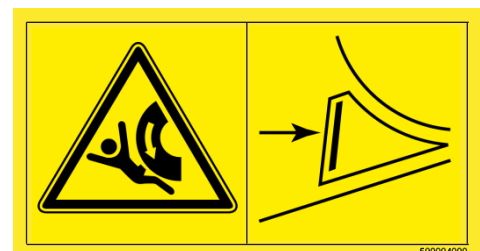
Working on and intervening in the header

Before carrying out any type of work on or intervention in the header, disengage the clutch in the driveline, shut off the engine, remove the ignition key, wait until all moving parts have come to a complete standstill and apply the parking brake.



Parking the transporter

Secure the transporter with a wheel chock before removing it from the towing vehicle or parking it.



Safety Instructions

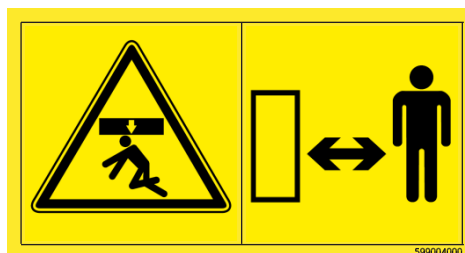
Placing the header on the transporter

When placing the header on the transporter, keep clear of the danger zone between the header and the transporter.



The header is lifted

Keep clear of the header swing area when placing it on the transporter.



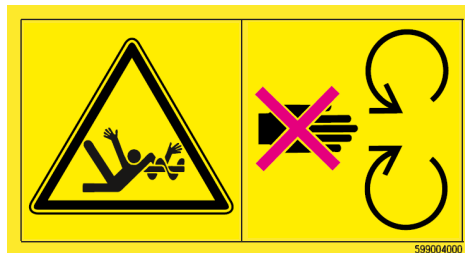
Do not open guards

Do not open or remove protective devices during operation or while the engine is running.



Rotating Auger

Never reach into the rotating auger.



Inspection before Delivery

The following inspection, adjustment and maintenance work was carried out before delivery of the machine:

Inspection before Delivery

- | | |
|--|---|
| <input type="checkbox"/> 1. Oil level in the knife bar drive housing is correct. | <input type="checkbox"/> 7. Header has been lubricated. |
| <input type="checkbox"/> 2. Drive belt tensioned correctly and belt running correct. | <input type="checkbox"/> 8. All hydraulic lines are tight and connections are tightened. |
| <input type="checkbox"/> 3. Reel tines can be adjusted correctly. | <input type="checkbox"/> 9. All protective devices are in place. |
| <input type="checkbox"/> 4. Knife centred in knife bar. | <input type="checkbox"/> 10. Paint and decals are in good condition. |
| <input type="checkbox"/> 5. Reel lifting works properly. | <input type="checkbox"/> 11. Customer has been familiarised with the operation of the header and the safety instructions. |
| <input type="checkbox"/> 6. Reel horizontal adjustment works properly. | |

Initial Installation

Initial assembly to John Deere cutting platform

In the following the first installation of the LHS and RHS side knives for the John Deere header will be described. If not specified anomalous, this is valid for RHS and LHS of the header. The differences from RHS and LHS will be described separately.



Reinforcement (welding) of the float arms

Before attaching the Zürn side knives, the float arms (side rails on which the blade gear and the blade dividers are attached) must be modified on the right and left-hand side by the reinforcing kit supplied.

To do this, weld the components in accordance with the instructions HXE150507 of John Deere.



Side Knife mount to cutting platform

Place the header in a way that both side parts are accessible well.

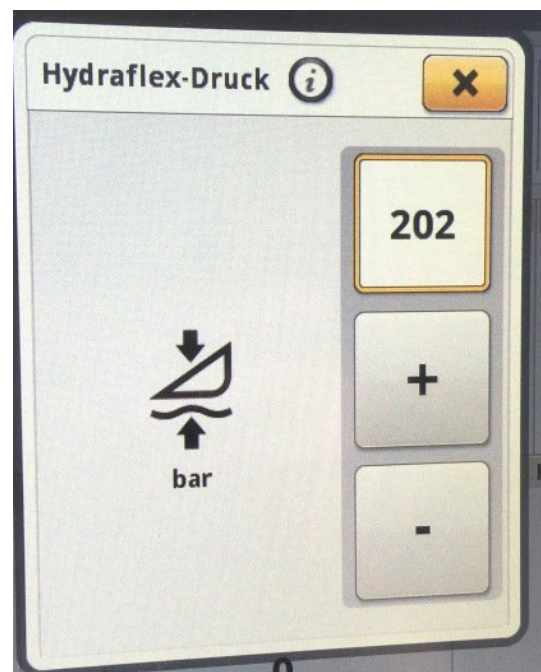
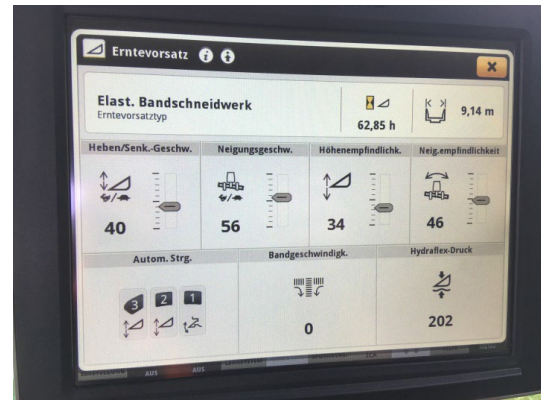
Lift the header to a comfortable working position and secure it against unintentional lowering.



Initial Installation

Header adjustment

Choose the header adjustment in the combine menu and adjust the flexible cutterbar to its maximum pressure (about 200 bar).



Initial Installation

Float arm assembling

Mount the blocks on the right and left float arms for the transport lock 2x HXE 37620 and M12x180 (not included in the delivery of Zürn). These belong to the transport lock of the header.



Remove crop divider

Remove the crop divider of the header.

Therefore remove the sheet metal deflector behind the crop divider first by loosening the three bolts M8 with flange nuts.

Loosen the six flange bolts SW15 and the two Allen head bolts with flange nuts on the side like shown in the picture.

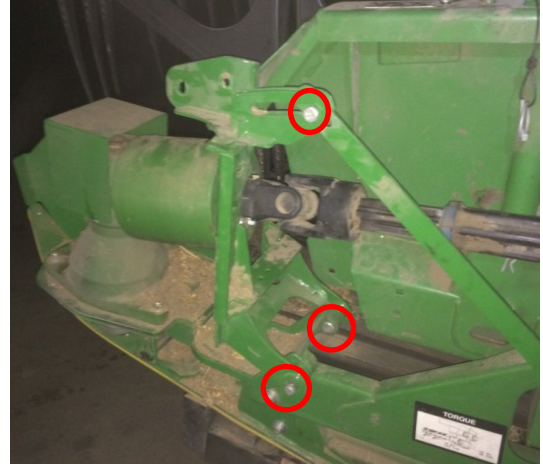


Initial Installation

Divider disassembly

Remove the mounting bracket of the crop divider.

Therefore remove both bottom pins with cotter pins and the fitting bolt in the elongated hole at the top like shown in the picture.

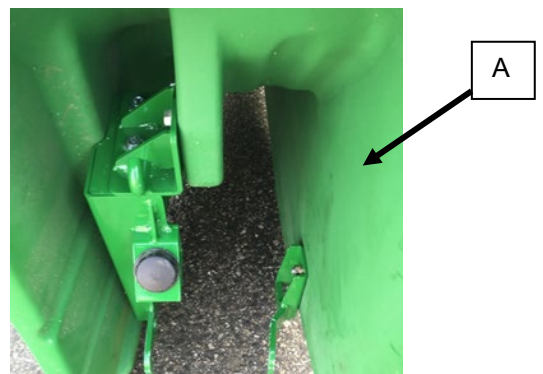


Mounting quick-change bracket for divider

Remove the original bracket in the crop divider.

Mount the supplied brackets (different on LHS and RHS) to the crop divider for quick change.

The picture (A) shows LHS, RHS is a mirror image.



Initial Installation

Mounting quick change divider

Mount the bracket and the guide rod for quick change of the divider on the header. Use the two origin bolts for the system. These are parts of the divider kit.



Mounting fastening bracket

Remove the Flex Shield.
Remove both fixing bolts at the front of the knife drive gearbox.



Now mount the upper part of the mounting bracket and the deflector plate to the cutting unit side.



Loosen the clamping screw of the knife head on the left hand side of the header.

Fix the connection block with the enclosed flange bolt M12x60 10.9.

Attention:

To prevent movement of the gearbox. Make sure that always two bolts are fixed.

Open not more than two bolts of the gearbox at the same time.



Initial Installation

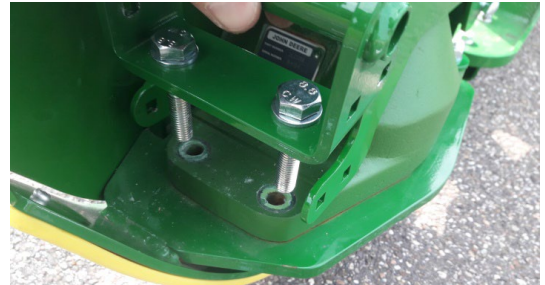
Mount the front holder of the bracket and tighten the fastening screws of the gearbox to the specified torque.

Exception:

Single Drive assembly

With Single Drive, there is no gearbox on the right side of the header, so the provided spacer boxes and the roller guide must be installed.

In addition, a guide for the knife operator is installed here.



Side knife

Check all screws of the side knife for tightness.



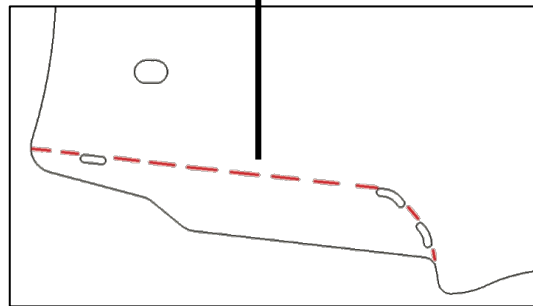
Initial Installation

Cover plate

Mount the supplied cover plate for the gearbox. There are two different versions of the Flex Shield. If the high stone shield is installed, the Flex Shield must be cut off as shown in the following picture.



For high stone shield on the Flex Shield cut at the slots above (as in the picture).



Knife head assembly

Dismount the knife head. Dismount the head bearing and pull the knife slightly outwards.

Install the delivered knife head with welded driving bracket

Observe the notes from the Operating Manual of the 600 / 700FD header for removal, installation and alignment of the knife head as well as tightening torques of the screws.

The knife head has not to be dismantled while using the header without side knives.

With dual drive knife drive, the knife head must be mounted on both sides



Initial Installation

Single Drive Assembly knife connector right

Dismount the main blade guard on the outside.

Dismount the existing Flex Shield.

Dismount the screw of the outer knife blades.

Mount the enclosed drive lever and the reinforcement strip on the knife.

Observe the notes from the Operating Manual of the 600 / 700FD:

Tightening torques of the screws.

In addition, also included fingers must be mounted in the header.

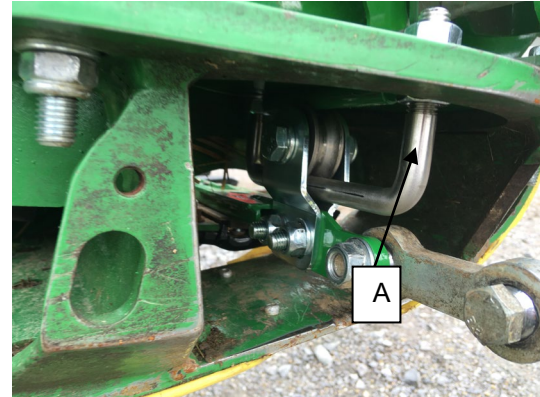
The drive lever can remain permanently on the cutting mechanism even when the side separator is not in use.



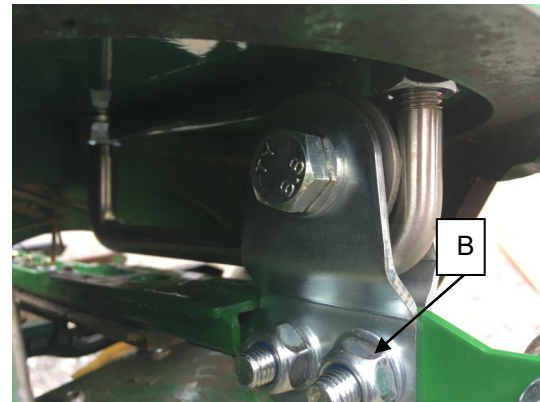
Initial Installation

Roller guide assembly

The roller guide can be made via the 2 screws M10. The screws loosened and the ironing screw roller guide (A) set without play.



With the two screws (B) M10x30, the guide to the main knife is adjusted.



After that, the taker can be connected to the page separators.



Initial Installation

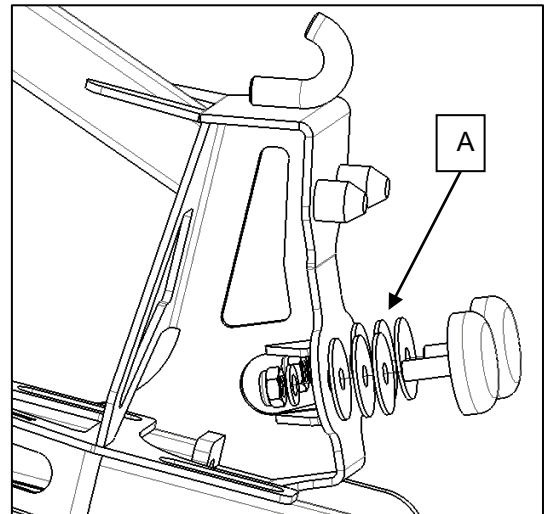
Side knife attachment

Attach the side knives to the bracket over the gearbox.

To do this, first insert the two lower hooks into the holder and secure it to the welded hook with the quick-release fastener.



If the distance to the reel is too short, it can be regulated via the spacers (A).



Initial Installation

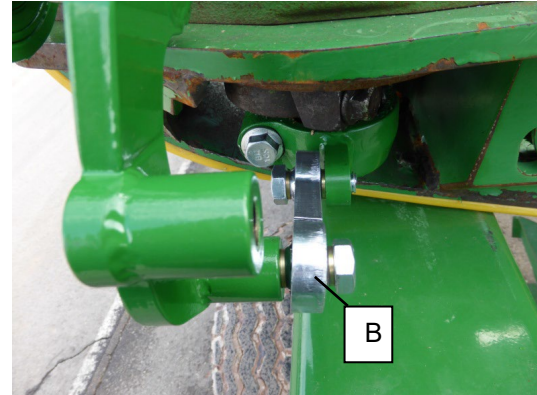
Side knife drive LHS and RHS assembly

Turn the gearbox by hand and test the stroke of the knife.

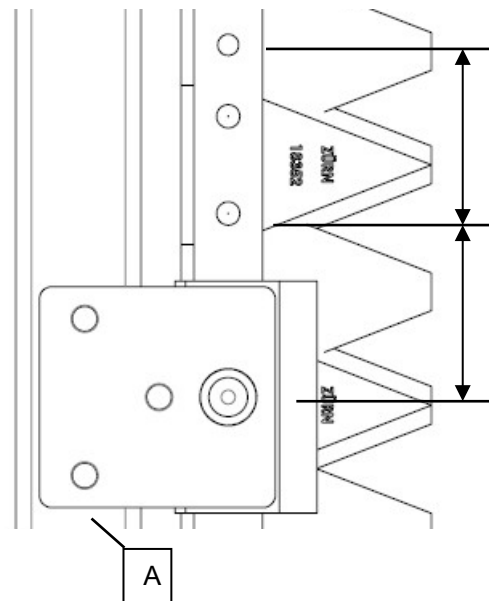
Make sure that the position of the side knives is in the middle position when the cutting knife is also in the middle position.

If necessary adjust the threaded joints at the driveline of the side knife.

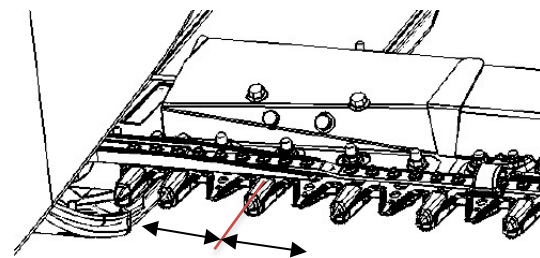
Make sure that there is no collision of driving parts (e.g. ball joints, driving shaft).



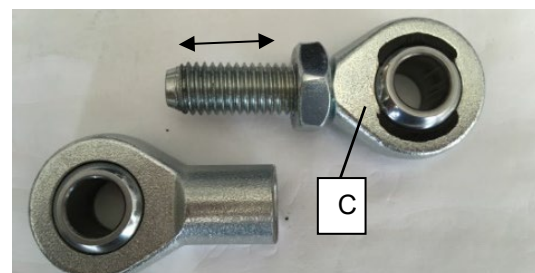
The side separators should completely intersect a knife blade, as shown in the picture!



For this purpose, the cutting unit must be positioned in medium stroke.



Adjust the length of the ball joint element (C) so that both center positions (side knife and knife head) are synchronized. If necessary, shorten the ball joint element by cutting off the threaded rod.



Initial Installation

Cover

Insert the cover first into the side guards with the front part, and then swing it downwards so that the fastening hook snaps into place.

Attach the cover with the quick-release fastener to the bracket for the divider.



Crop Conversion

To convert the header from grain to canola, the following steps are required:

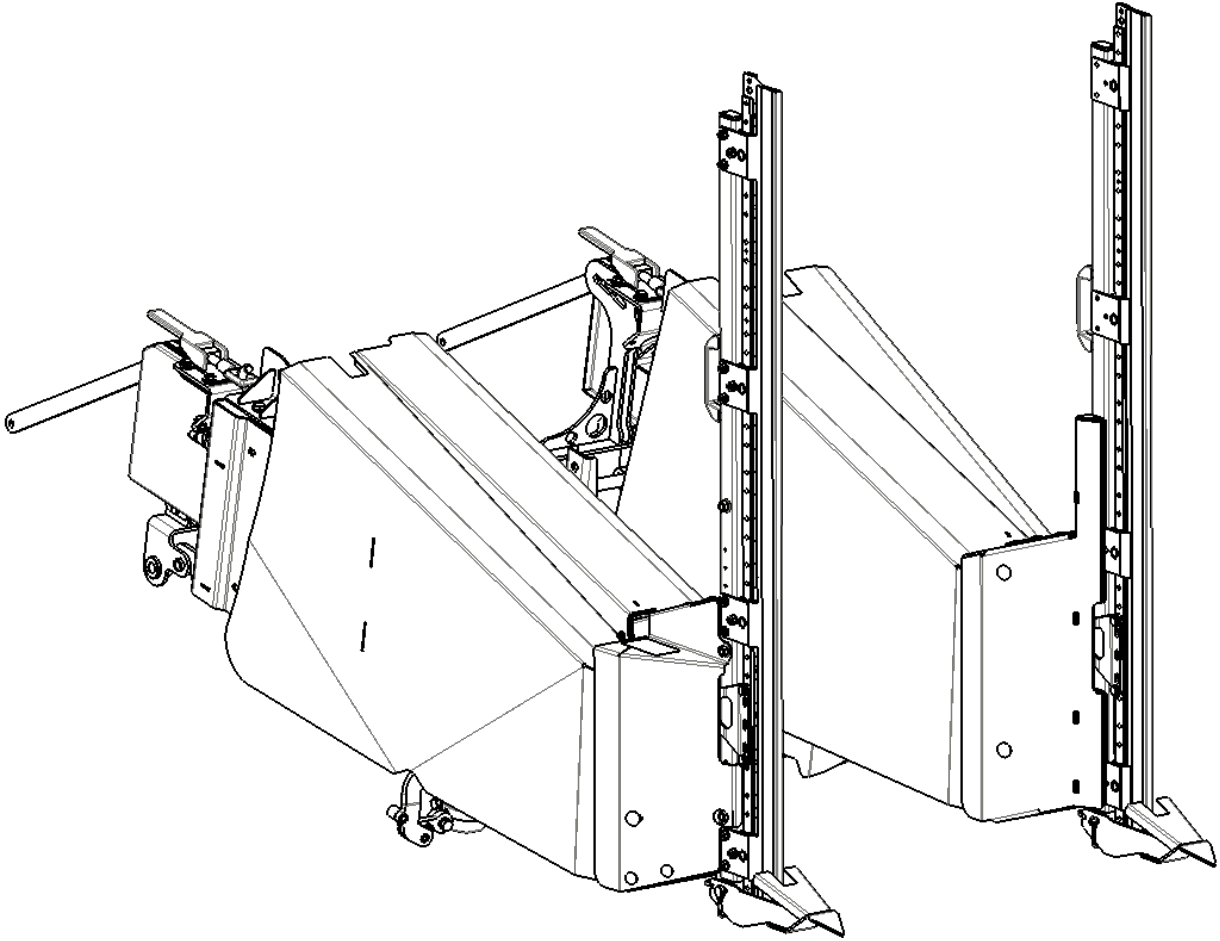
Grain-Canola: (Term ca. 5 Min/Side)

1. Assembly of the brackets on the Arm right and left outside
2. Disassembly of the divider by quick change
3. Cultivation of the side knife by quick change
4. Establish connection to the knife drive (SW19)
5. Fit cover by fastener

Canola-Grain: (Term ca. 5 Min/Side)

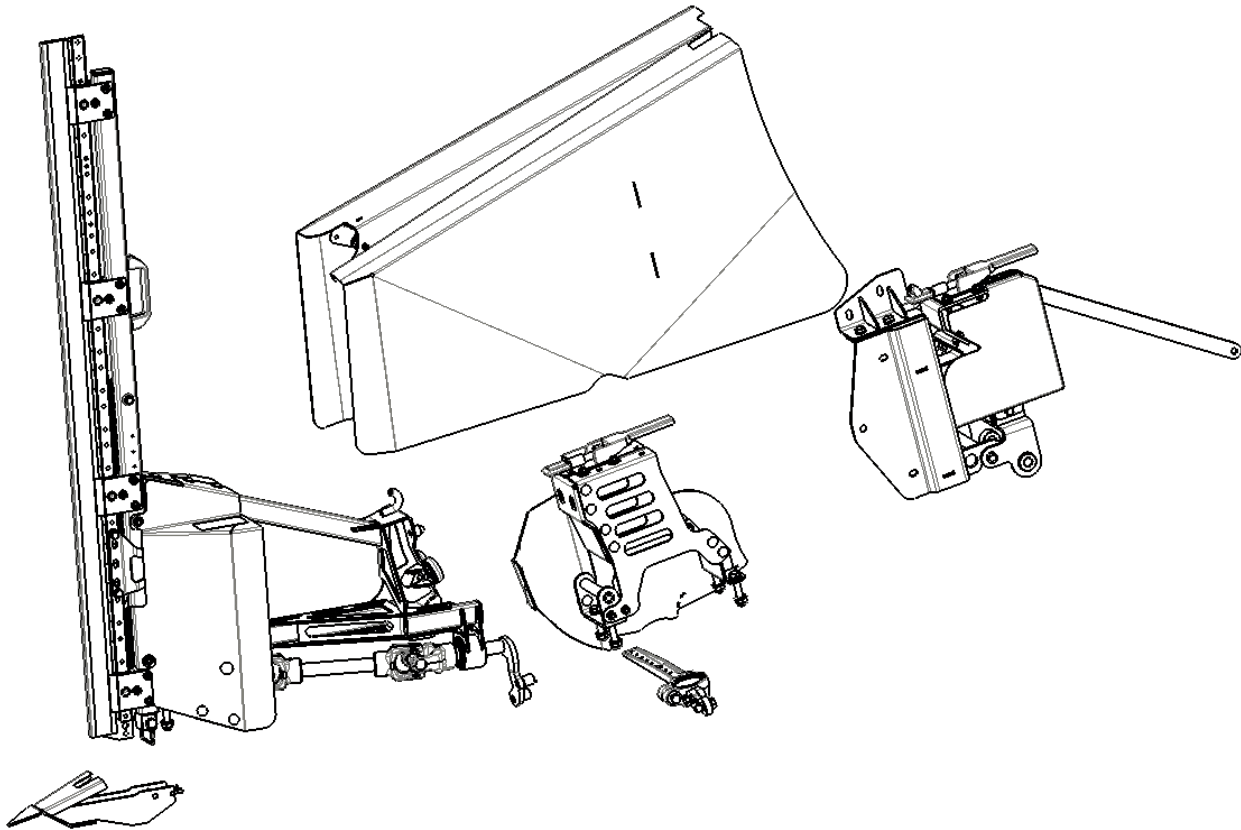
1. Disassemble cover by fastener
 2. Disconnect the connection between the side knife and the knife drive, the connecting piece remains on the side knife
 3. Dismantling of the side knife by fastener
 4. Assembly of the divider by fastener
 5. Disassembly of the holding blocks on Arms right and left outside
-

Spare Parts List



Spare Parts List

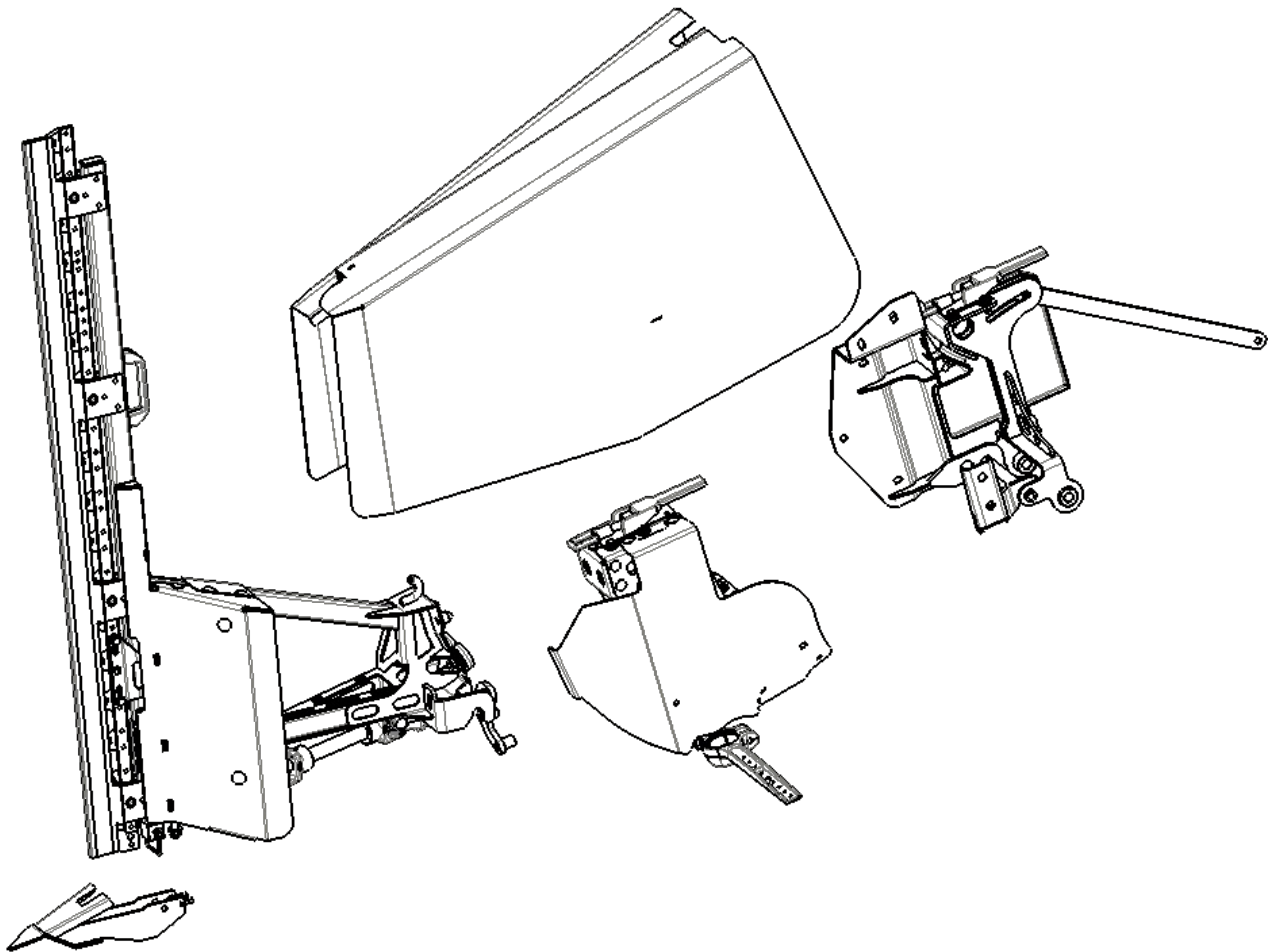
Side Knife complete LHS



Pos.	Number	Description	Technical details	Qty.
	16670	Left Hand Side Knife Assy		

Spare Parts List

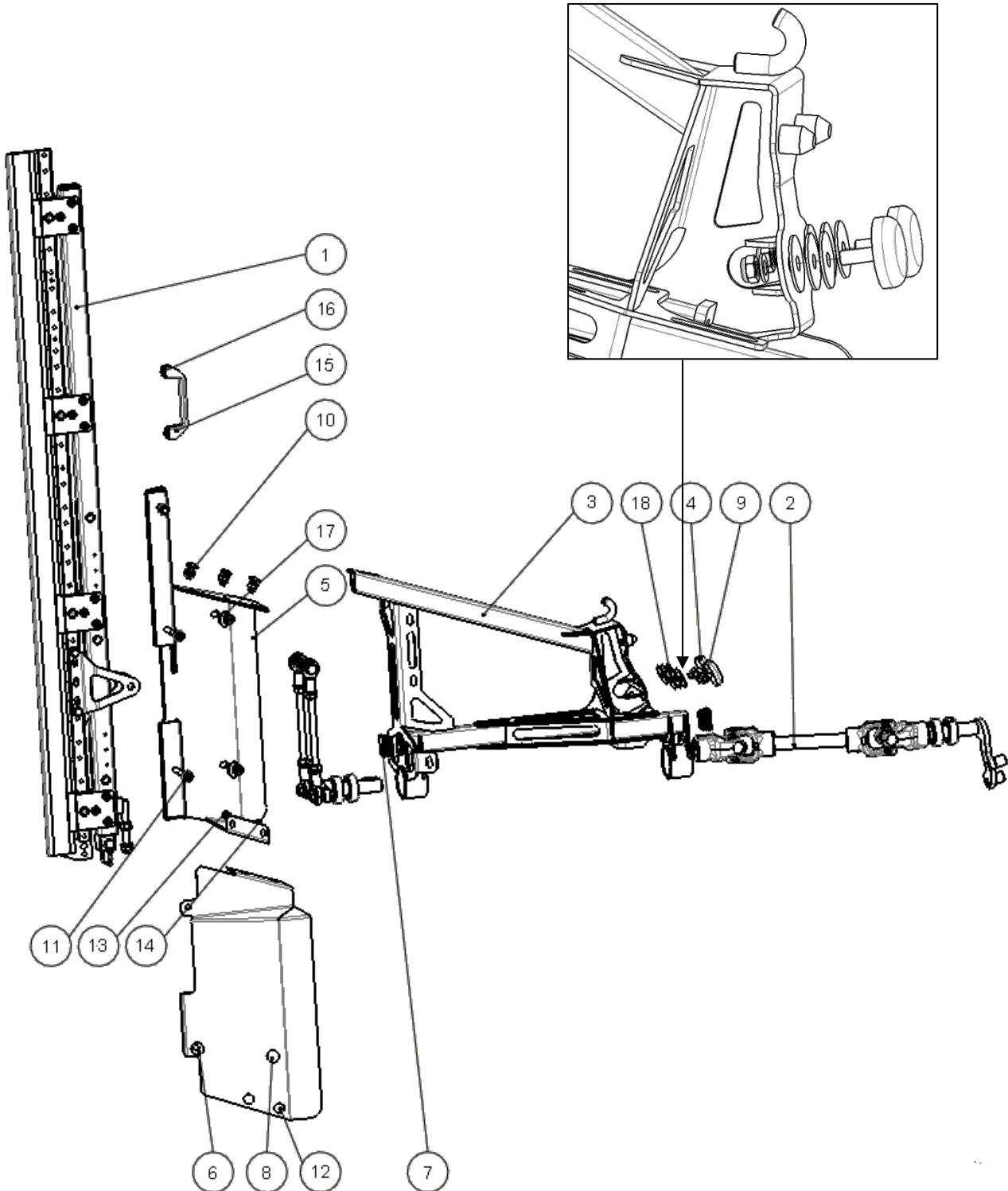
Side Knife complete RHS



Pos.	Number	Description	Technical details	Qty.
	16660	Right Hand Side Knife Assy		

Spare Parts List

Side Knife LHS

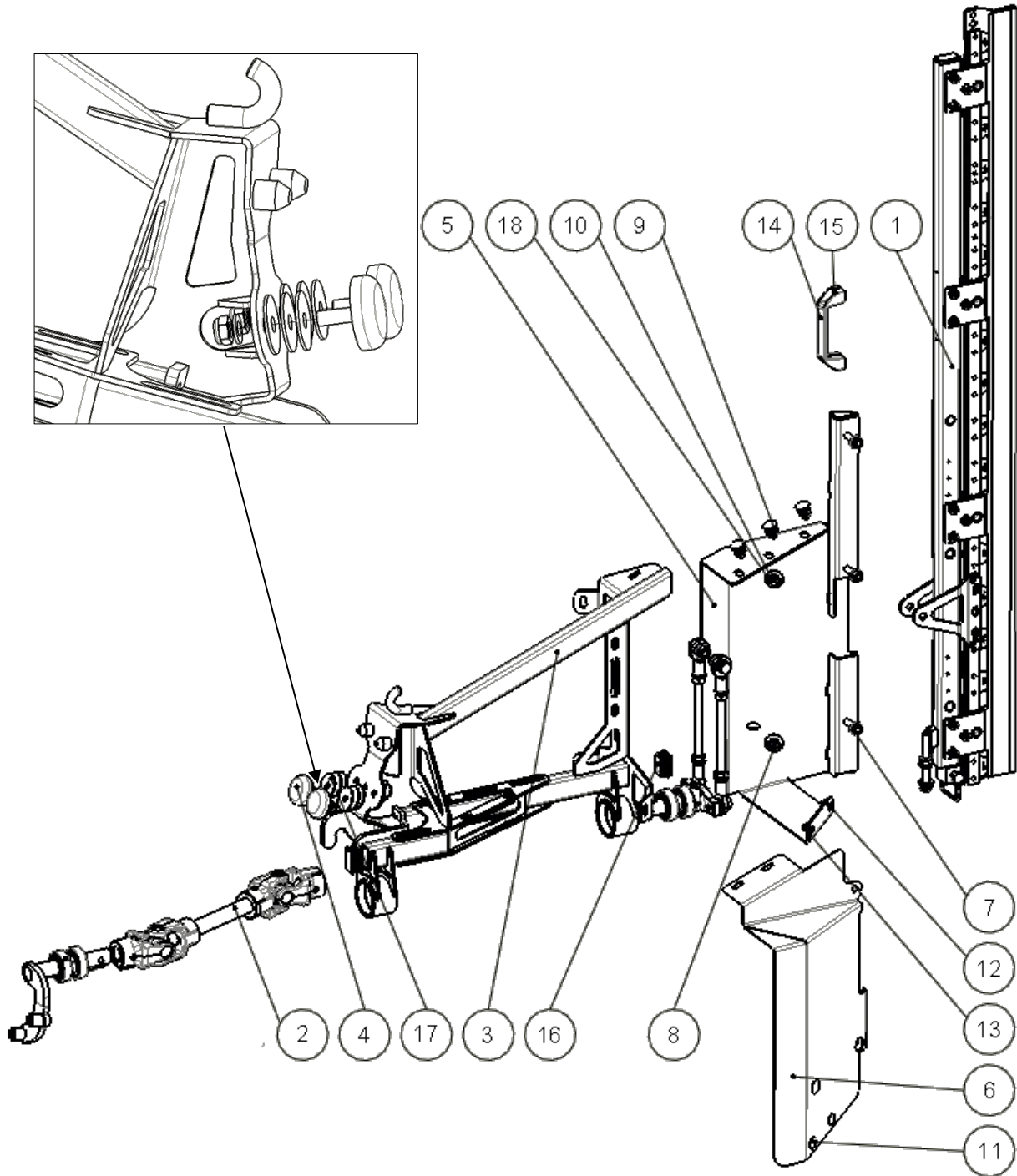


Spare Parts List

Pos.	Number	Description	Technical details	Qty.
1	16604	Side Knife Left Assy		1
2	16349	PTO Shaft Assy		1
3	16340	Main Frame Left Side		1
4	60503	Bumper	Contitech 25481	2
5	16345	Front Frame Left Side		1
6	16673	Front Cover Left Side		1
7	18359	Plug	25x40x1,5-2	2
8	70740	Bolt	DIN 603 M10x25	6
9	70075	Washer	DIN125 A10	8
10	70021	Nut	DIN 985 M10	8
11	70006	Flange Nut	DIN 6923 M10	3
12	70511	Carriage bolt	DIN 603 M8x20	2
13	70109	Washer	DIN 125 A8	2
14	70103	Nut	DIN 985 M8	2
15	090175	Handle	H=40mm A=122mm for M6	1
16	091961	Screw	DIN 912 M6x12	2
17	70368	Washer	DIN 9021 A10	2
18	70117	Washer	DIN 522 C10	AR

Spare Parts List

Side Knife RHS

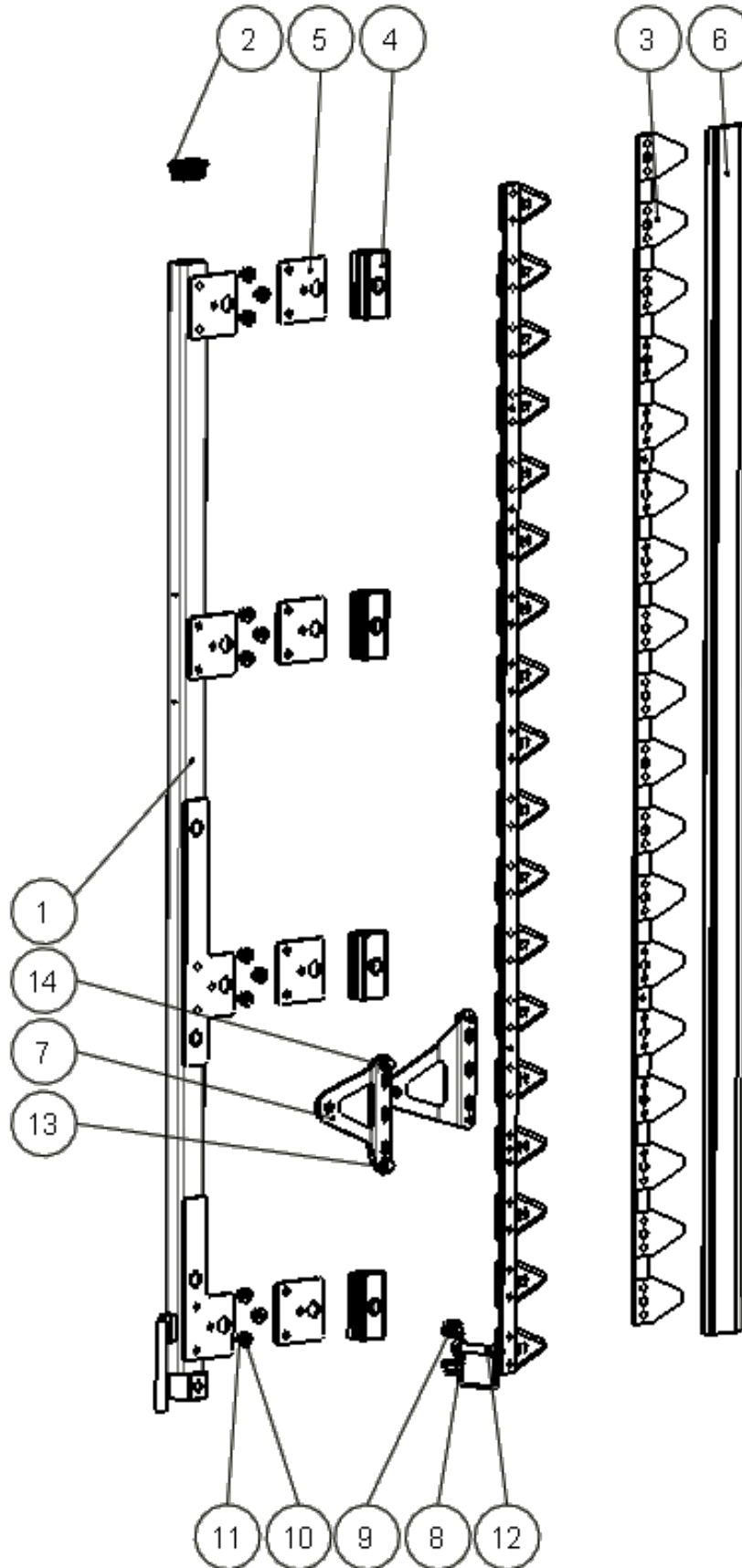


Spare Parts List

Pos.	Number	Description	Technical details	Qty.
1	16605	Side Knife Right Assy		1
2	16349	PTO Shaft Assy		1
3	16350	Main Frame Right Side		1
4	60503	Bumper	Contitech 25481	2
5	16355	Front Frame Right Side		1
6	16668	Front Cover Right Side		1
7	70006	Flange Nut	DIN 6923 M10	3
8	70740	Bolt	DIN 603 M10x25	6
9	70075	Washer	DIN125 A10	8
10	70021	Nut	DIN 985 M10	8
11	70511	Carriage bolt	DIN 603 M8x20	2
12	70109	Washer	DIN 125 A8	2
13	70103	Nut	DIN 985 M8	2
14	090175	Handle	H=40mm A=122mm für M6	1
15	091961	Screw	DIN 912 M6x12	2
16	18359	Plug	25x40x1,5-2	2
17	70117	Washer	DIN 522 C10	AR
18	70368	Washer	DIN 9021 A10	2

Spare Parts List

Cutterbar

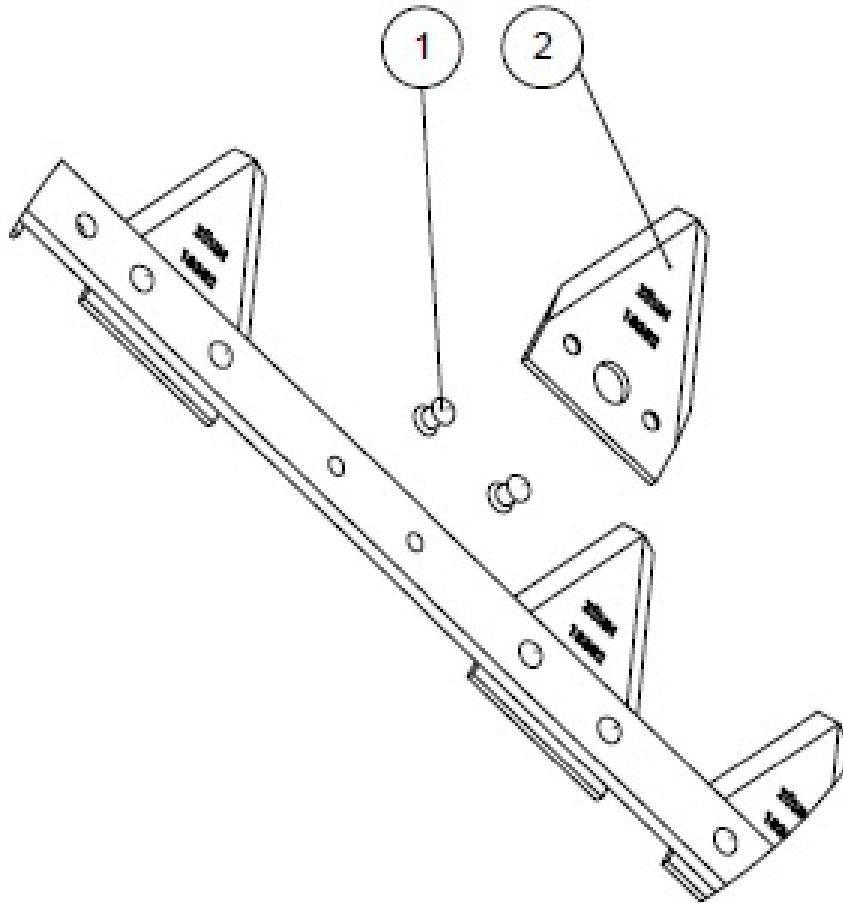


Spare Parts List

Pos.	Number	Description	Technical details	Qty.
1	16608	Side Knife Bar Right	RH	1
	16609	Side Knife Bar Left	LH	1
2	18359	Plug	40x25 black	1
3	54370	Knife	L=1355 mm 18 Sections	1
	18320	Knife	L=1278 mm 17 Sections	1
4	18343	Knife guidance		8
5	18342	Plate		4
6	18350	Knife guard		1
7	16606	Knife Drive Bracket		2
8	70061	Washer	DIN 125 A12	2
9	70022	Nut	DIN 985 M12	2
10	70109	Washer	DIN 125 A 8	12
11	70103	Nut	DIN 985 M8	12
12	16975	Linchpin		1
13	096061	Taper Washer	DIN 25201 for M8 8,6x16,6x2,7	4
14	096060	Bolt	DIN 933 M8x14	4
1-20	16266	Side Knife Right Assy	RH	1
	16267	Side Knife Left Assy	LH	1

Spare Parts List

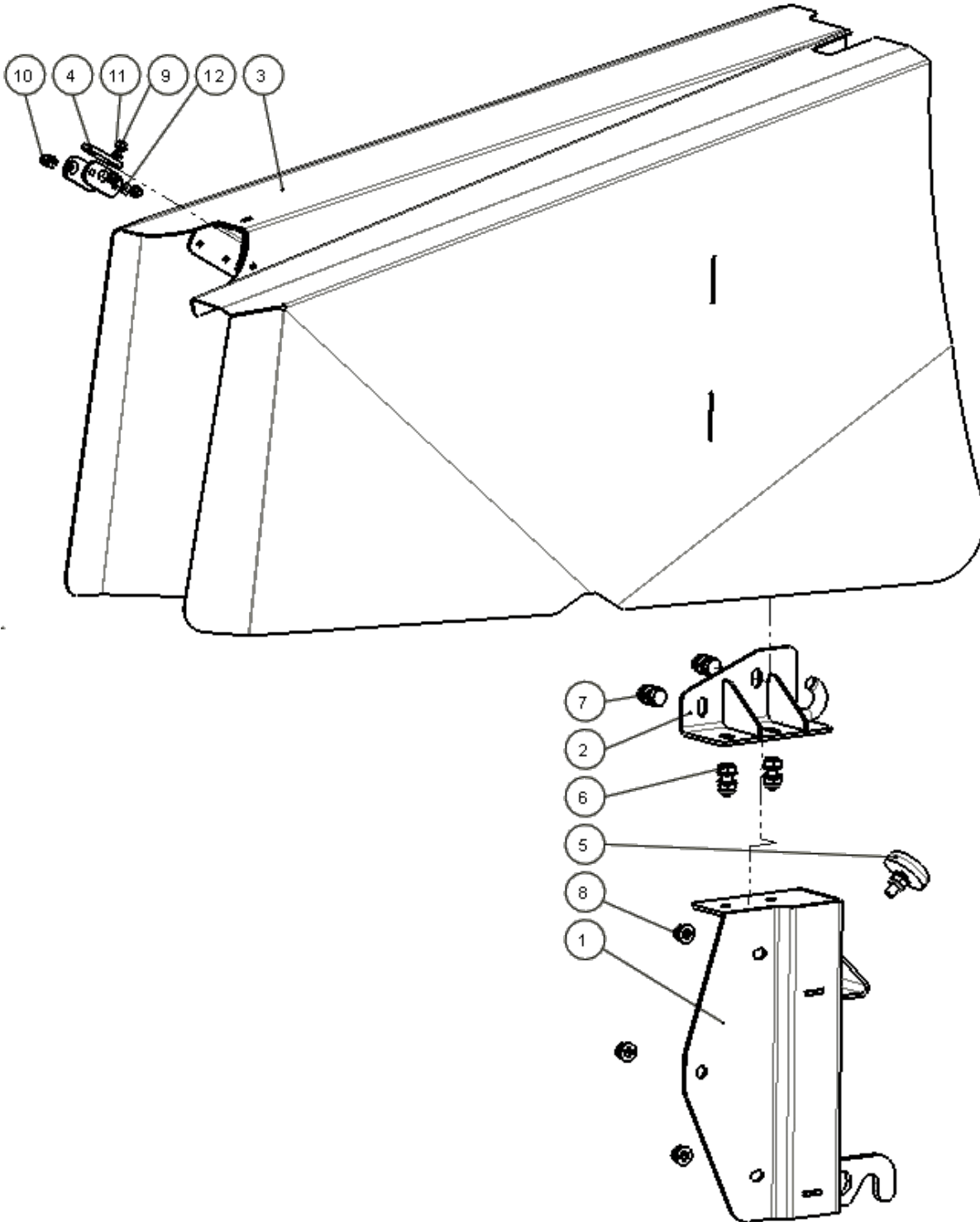
Knife



Pos.	Number	Description	Technical details	Qty.
1	18353	Rivet	DIN661 5x13	AR
2	18352	Knife Section		AR

Spare Parts List

Cover LHS

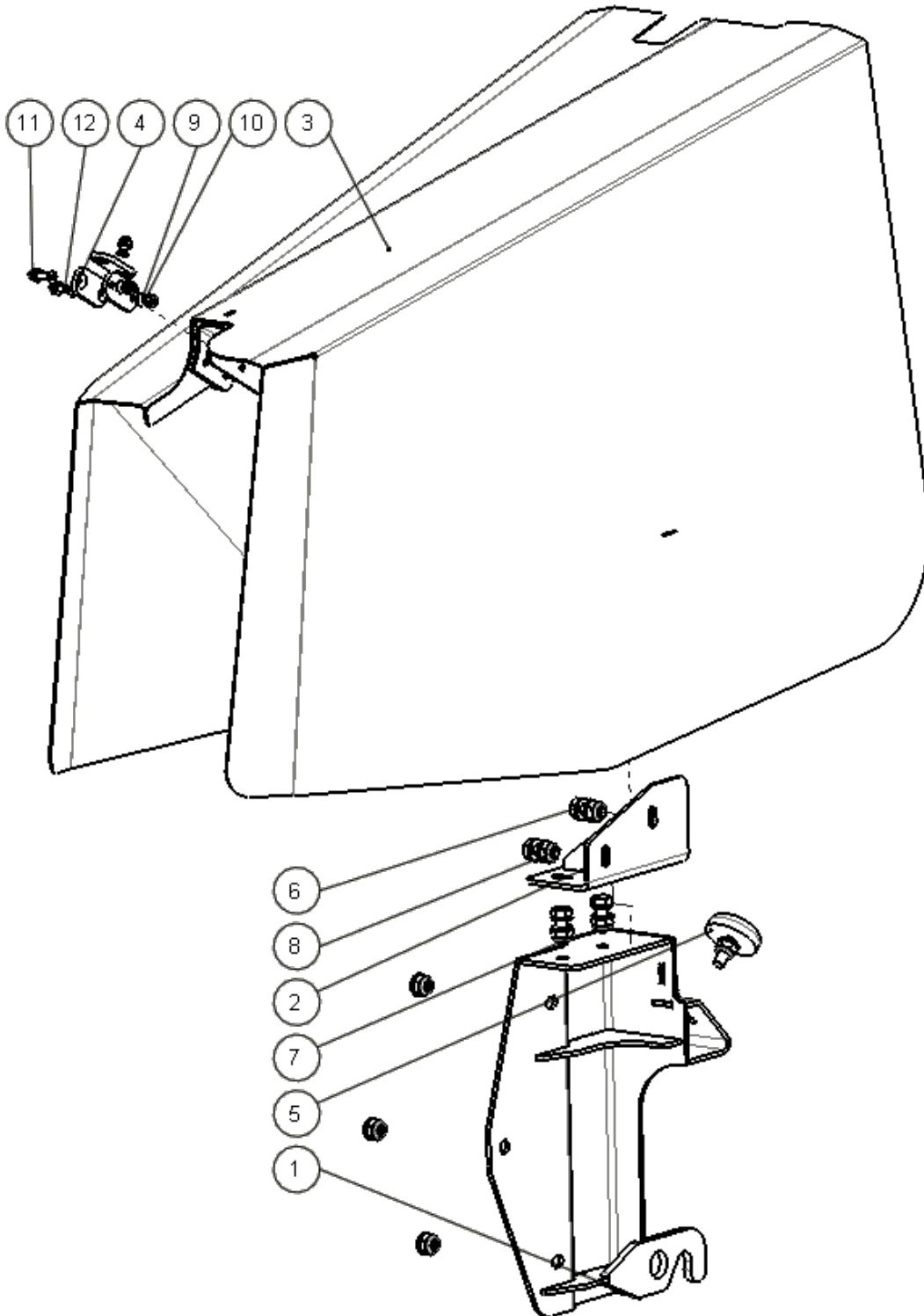


Spare Parts List

Pos.	Number	Description	Technical details	Qty.
1	16303	Main Hook Left Side		1
2	16502	Top Hook Left		1
3	16674	Cover Left Side		1
4	16376	Sliding block		3
5	60503	Bumper	Contitech 25481	1
8	70021	Nut	DIN 985 M10	10
6	70649	Bolt	DIN 933 M10x25	4
7	70075	Washer	DIN125 A10	12
9	091619	Screw	DIN 7991 M6x16	5
10	70020	Nut	DIN 985 M6	6
11	70074	Washer	DIN125 A6	6
12	092016	Screw	DIN 7991 M6x25	1

Spare Parts List

Cover RHS

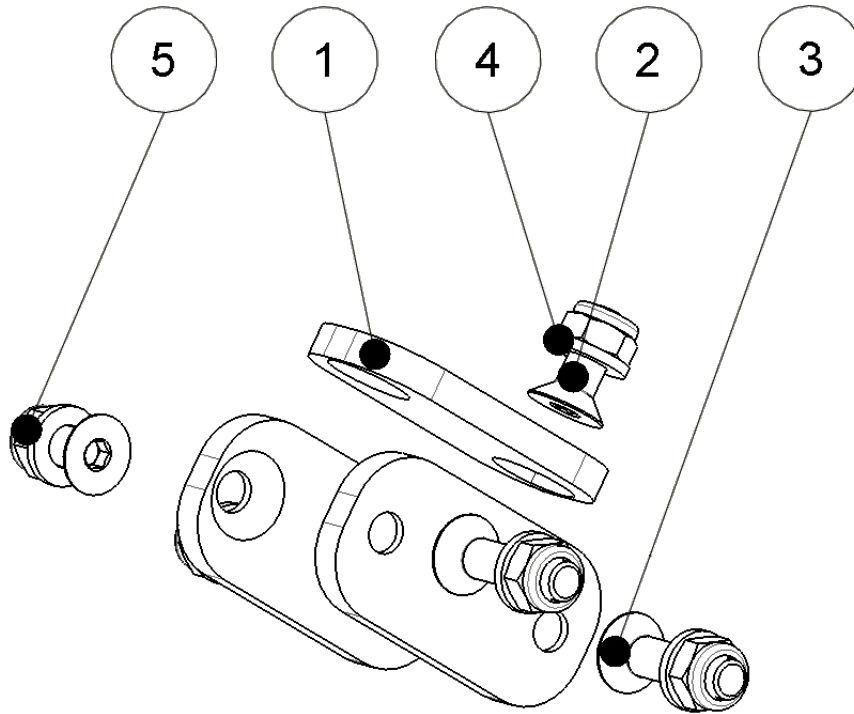


Spare Parts List

Pos.	Number	Description	Technical details	Qty.
1	16326	Main Hook Right Side		1
2	16324	Top Hook Right		1
3	16656	Cover Right Side		1
4	16376	Sliding block		3
5	60503	Bumper	Contitech 25481	1
6	70075	Washer	DIN 125 A10	12
7	70021	Nut	DIN 985 M10	10
8	70649	Bolt	DIN 933 M10x25	4
9	091619	Screw	DIN 7991 M6x16	5
10	70074	Scheibe	DIN 125 A6	6
11	70020	Nut	DIN 985 M6	6
12	092016	Screw	DIN 7991 M6x25	1

Spare Parts List

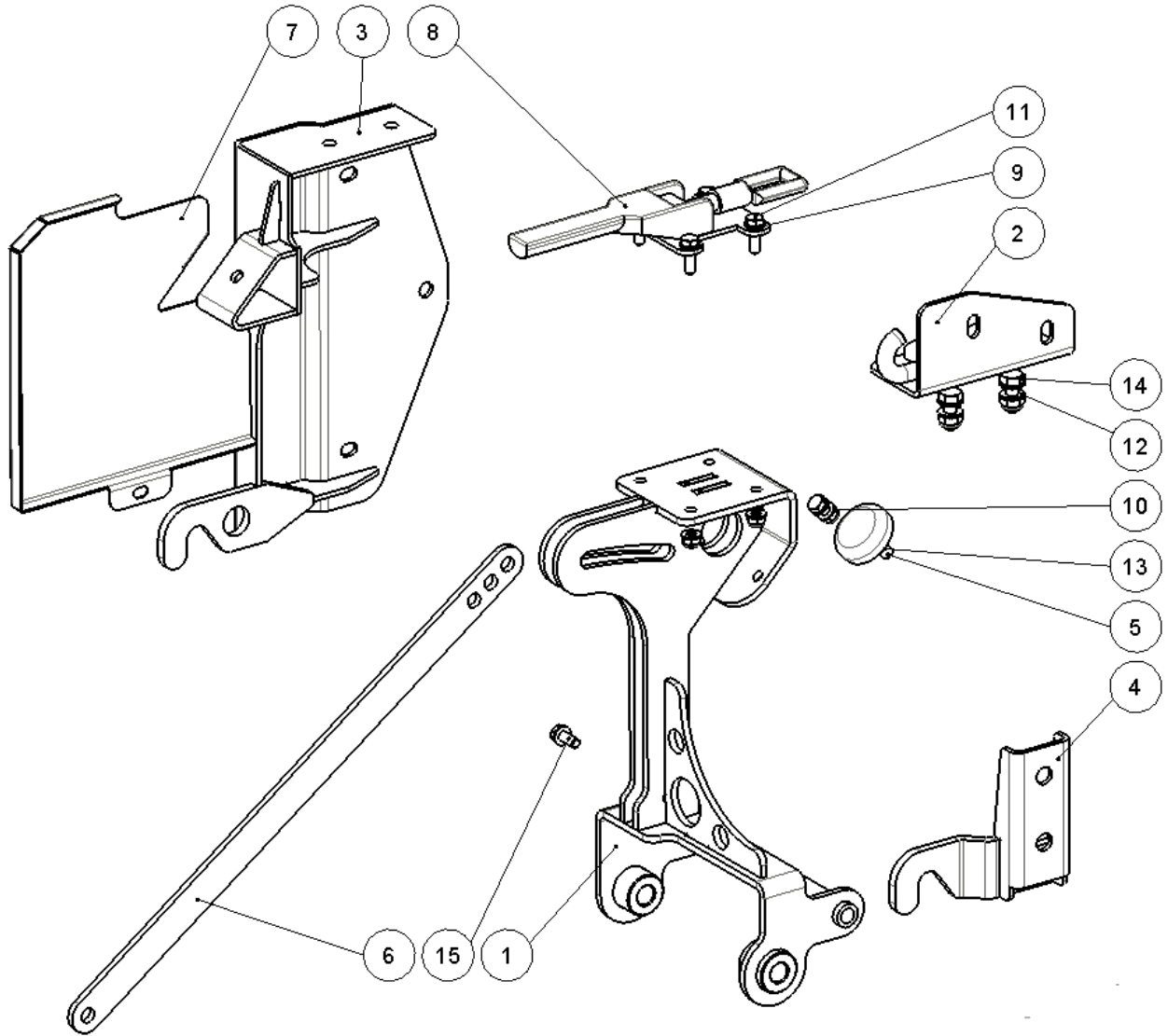
Sliding block



Pos.	Number	Description	Technical details	Qty.
1	16376	Sliding block		3
2	091619	Screw	DIN 7991 M6x16	5
3	092016	Screw	DIN 7991 M6x25	1
4	70074	Washer	DIN 125 A6	6
5	70020	Nut	DIN 985 M6	6

Spare Parts List

Divider Quick Change LHS

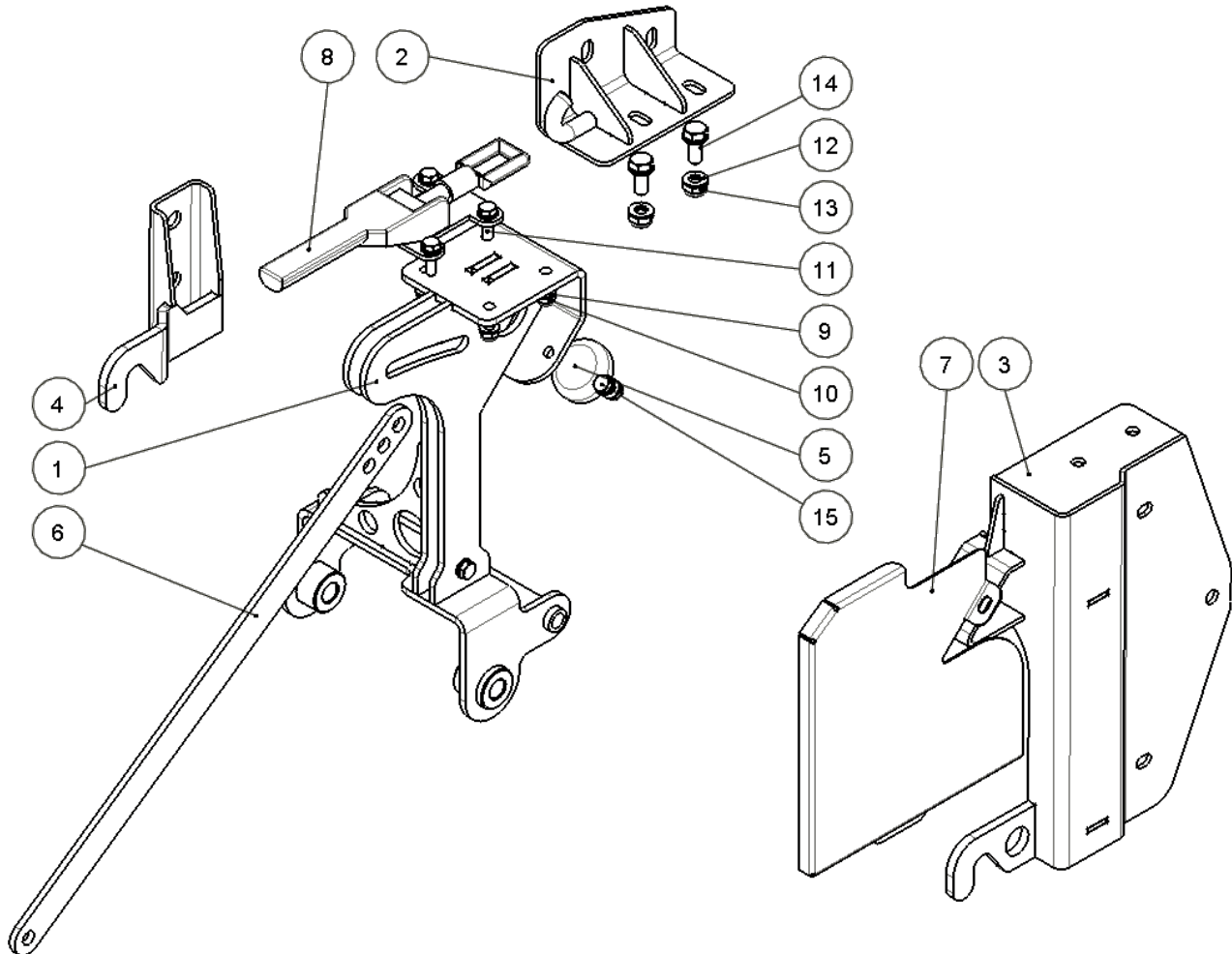


Spare Parts List

Pos.	Number	Bracket	Technical details	Qty.
1	16424	Support Left		1
2	16502	Top Hook Left		1
3	16303	Main Hook Left Side		1
4	16526	Bottom Hook Left		1
5	60503	Bumper	Contitech 25481	1
6	16301	Connection Rod		1
7	16302	Cover Left		1
8	19044	Quick latch	M14x1,5 moveable	1
9	70109	Washer	DIN 125 A8	11
10	70103	Nut	DIN 985 M8	5
11	70230	Bolt	DIN 933 M8x25	4
12	70075	Washer	DIN125 A10	5
13	70021	Nut	DIN 985 M10	3
14	70649	Bolt	DIN 933 M10x25	2
15	70060	Bolt	DIN 933 M8x20	2

Spare Parts List

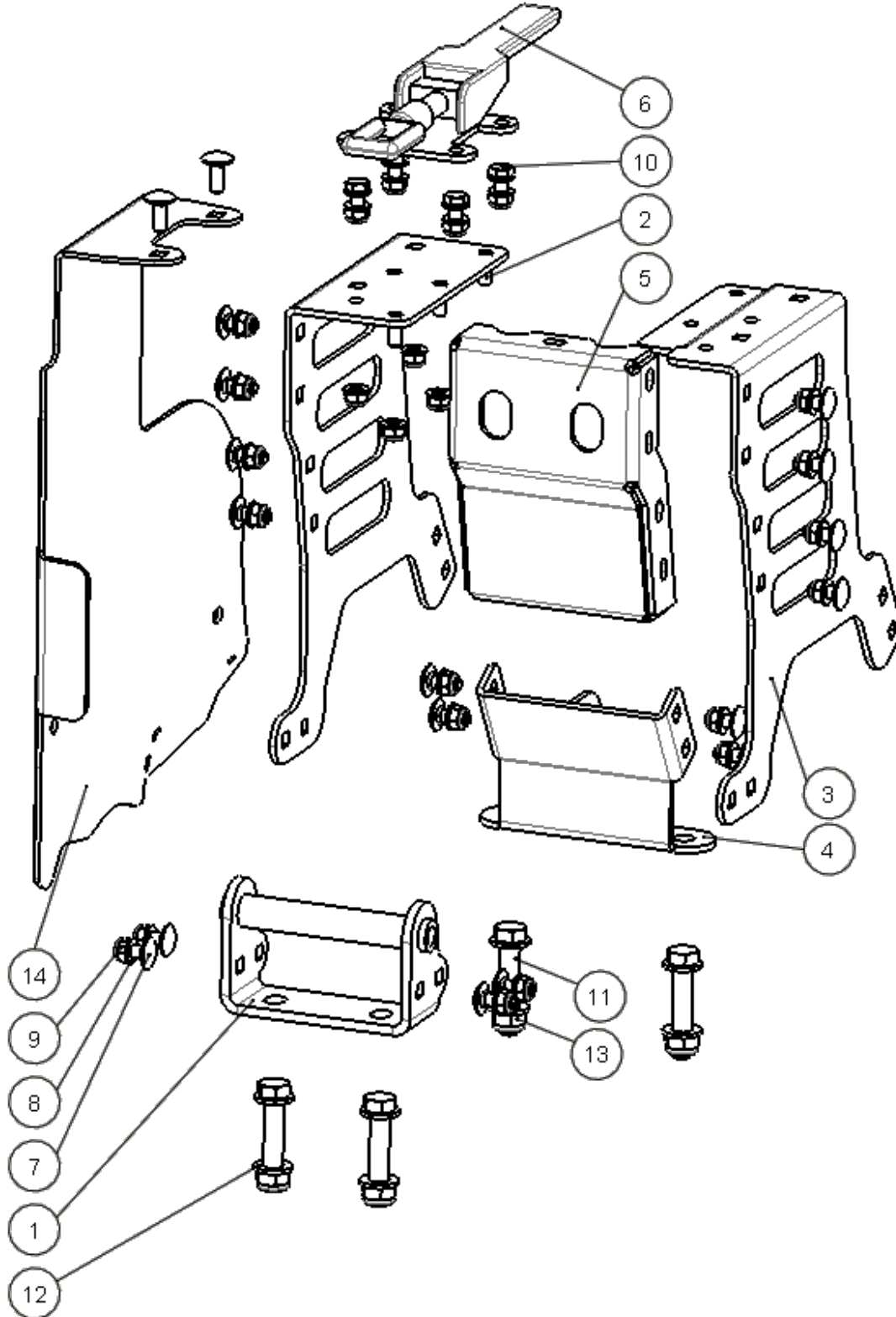
Divider Quick Change RHS



Pos.	Number	Description	Technical details	Qty.
1	16323	Support Right		1
2	16324	Top Hook Right		1
3	16326	Main Hook Right Side		1
4	16328	Bottom Hook Right		1
5	60503	Bumper	Contitech 25481	1
6	16301	Connection Rod		1
7	16332	Cover Right		1
8	19044	Quick latch	M14x1,5 movable	1
9	70109	Washer	DIN 125 A8	11
10	70103	Nut	DIN 985 M8	5
11	70230	Bolt	DIN 933 M8x25	4
12	70075	Washer	DIN125 A10	5
13	70021	Nut	DIN 985 M10	3
14	70649	Bolt	DIN 933 M10x25	2
15	70060	Bolt	DIN 933 M8x20	2

Spare Parts List

Quick Change Support LHS

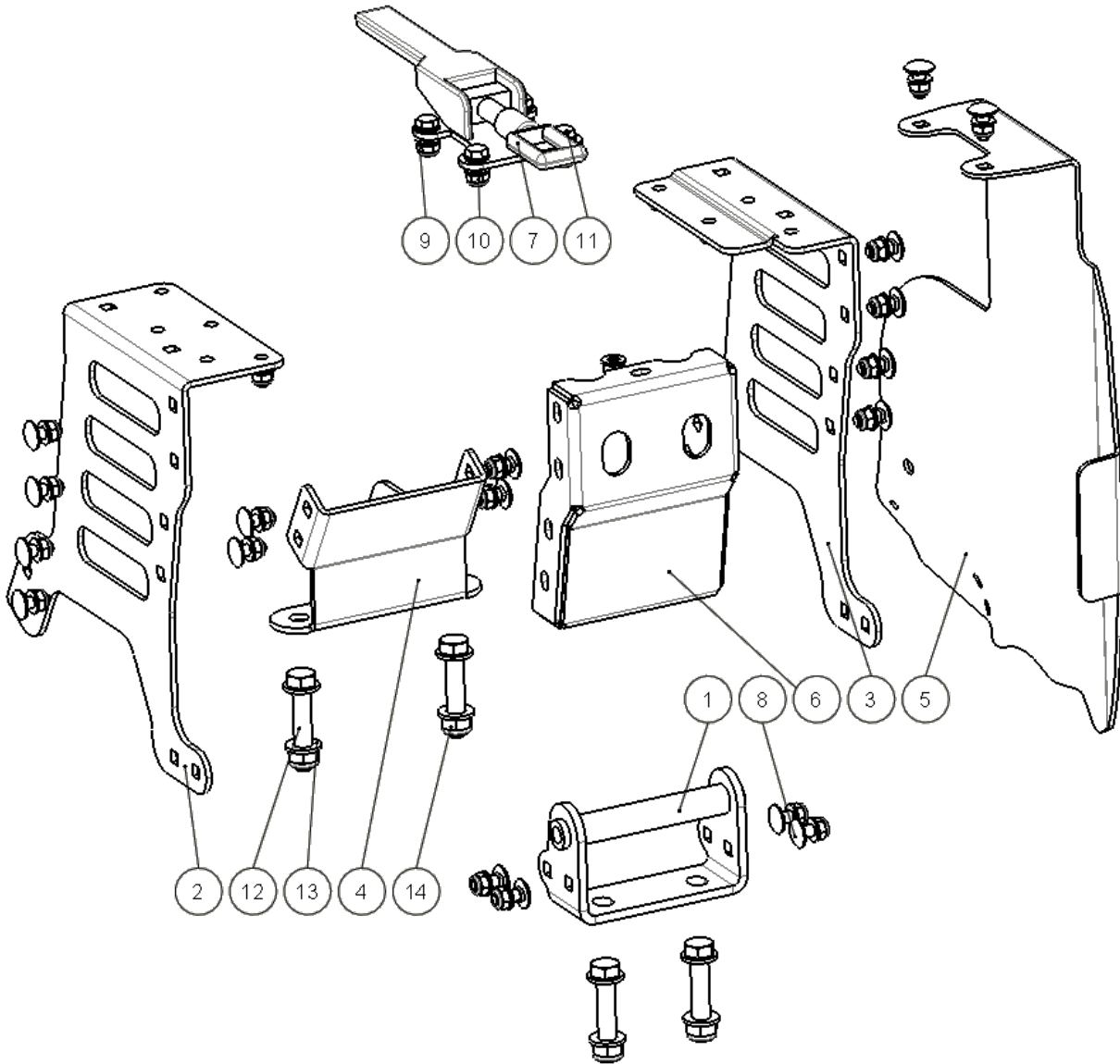


Spare Parts List

Pos.	Number	Description	Technical details	Qty.
1	16357	Holding Bracket Side Knife		1
2	16365	Quick Change Bracket Part 1		1
3	16366	Quick Change Bracket Part 2		1
4	16972	Reinforcement Bracket for Quick Change		1
5	16374	Quick Change Bracket Part 4		1
6	19044	Quick latch	M14x1,5 movable	1
7	70511	Carriage bolt	DIN 603 M8x20	18
8	70109	Washer	DIN 125 A8	32
9	70103	Nut	DIN 985 M8	28
10	70060	Bolt	DIN 933 M8x20	4
11	70301	Bolt	DIN 931 M12x60	4
12	70061	Washer	DIN 125 A12	8
13	70022	Nut	DIN 985 M12	4
14	16672	Flex Shield Left Quick Change		1

Spare Parts List

Quick Change Support RHS

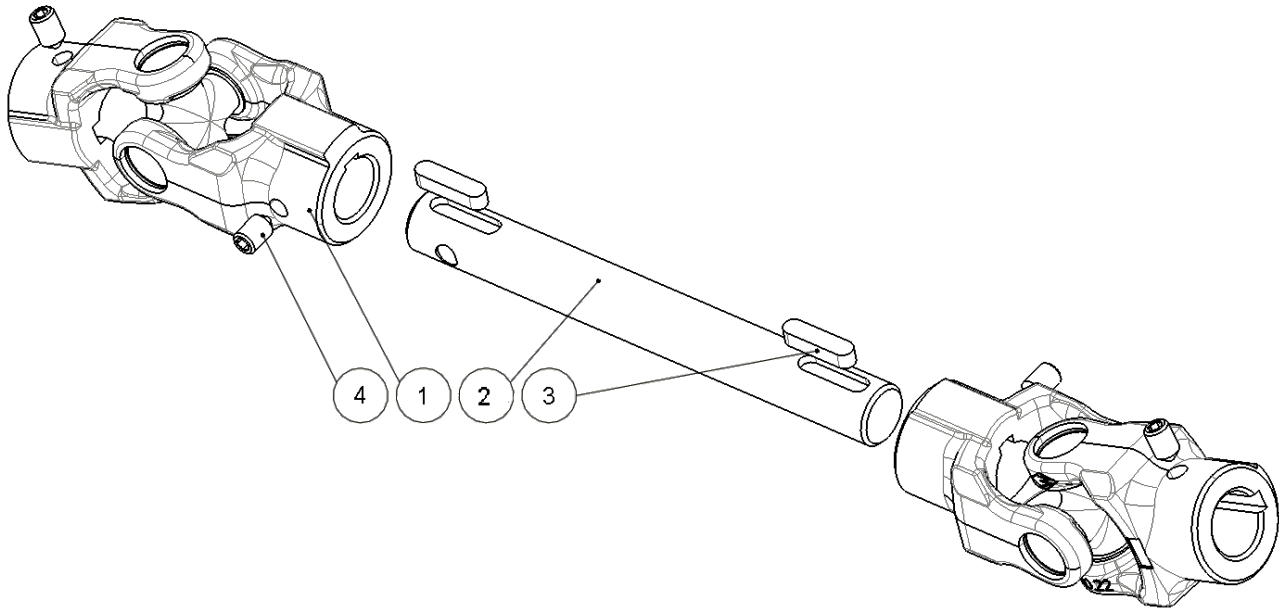


Spare Parts List

Pos.	Number	Description	Technical details	Qty.
1	16357	Holding Bracket Side Knife		1
2	16365	Quick Change Bracket Part 1		1
3	16366	Quick Change Bracket Part 2		1
4	16972	Reinforcement Bracket for Quick Change		1
5	16368	Flex Shield Right Quick Change		1
6	16374	Quick Change Bracket Part 4		1
7	19044	Quick latch	M14x1,5 movable	1
8	70511	Carriage bolt	DIN 603 M8x20	18
9	70109	Washer	DIN 125 A8	32
10	70103	Nut	DIN 985 M8	28
11	70060	Bolt	DIN 933 M8x20	4
12	70301	Bolt	DIN 931 M12x60	4
13	70061	Washer	DIN 125 A12	8
14	70022	Nut	DIN 985 M12	4

Spare Parts List

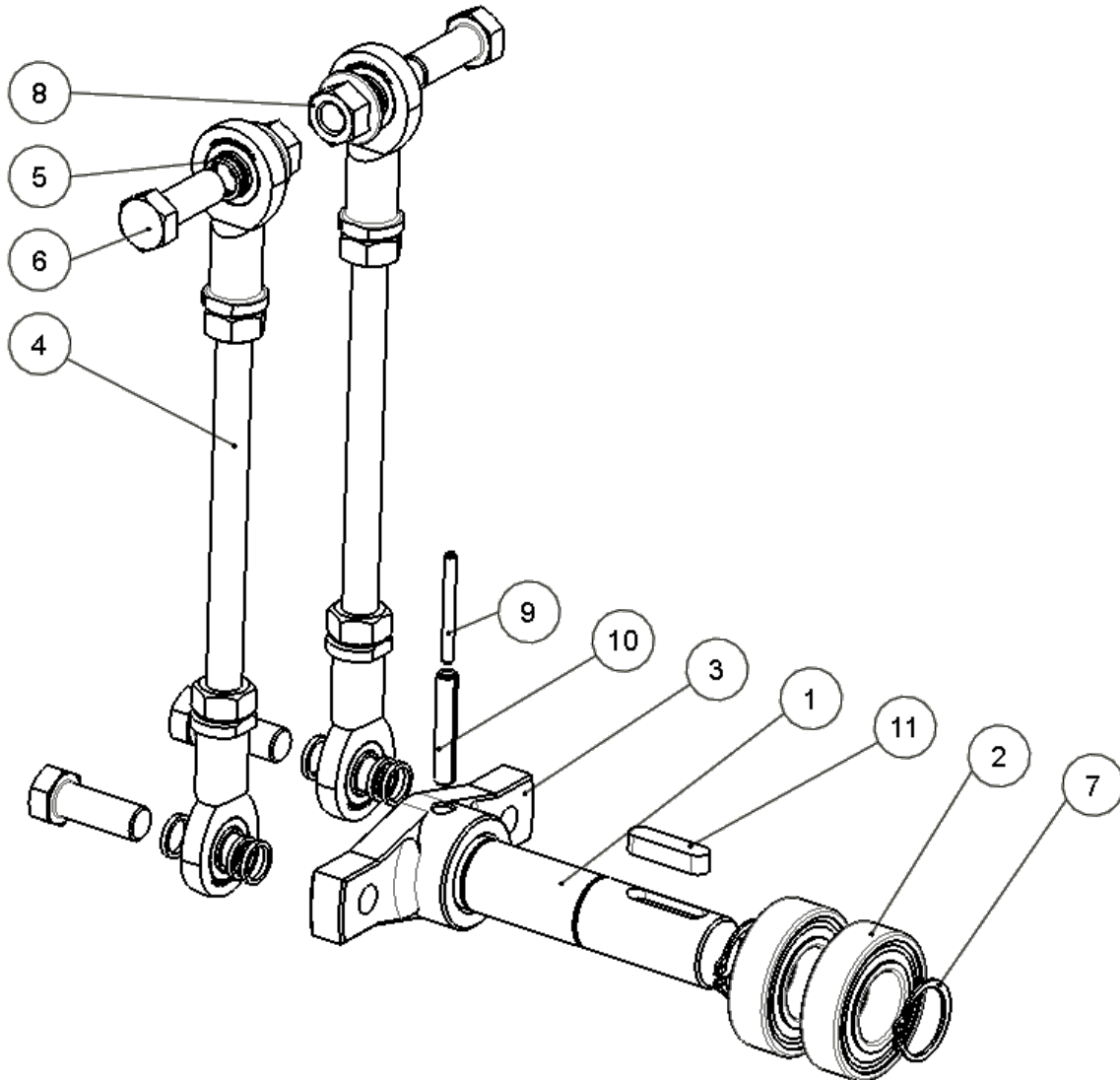
Drive shaft



Pos.	Number	Description	Technical details	Qty.
1	16291	Cardan Joint		2
2	16292	PTO Shaft Middle Part		1
3	70263	Feather Key	DIN 6885 A 8x7x32	2
4	70478	Setscrew	ISO 4027 M10x16 45H	4
1-4	16349	PTO Shaft Assy		

Spare Parts List

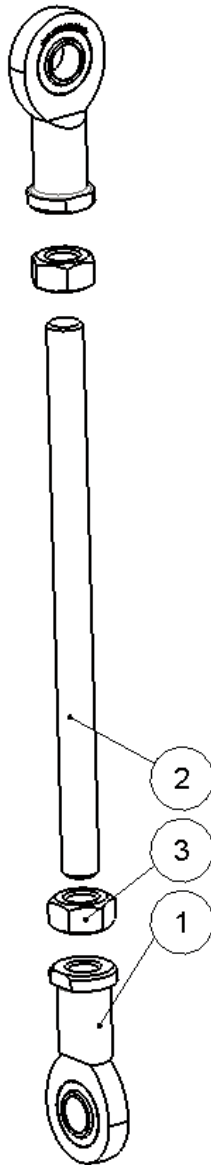
Drive Unit



Pos.	Number	Description	Technical details	Qty.
1	28061	Drive Shaft Front		1
2	70416	Bearing	DIN 625 6205-2RSH 25x52x15	2
3	16375	Hub		1
4	28134	Connection Rod Assy		2
5	18388	Distance Bushing		12
6	50356	Special Bolt	DIN 931 M12x45 (shorted)	4
7	70200	Snap Ring	DIN 471 25x1,2	2
8	70012	Nut	DIN 6923 M12	2
9	70094	Spring Pin	ISO 8752 4x40	1
10	70171	Spring Pin	ISO 8752 7x40	1
11	70263	Feather Key	DIN 6885 A8x7x32	1

Spare Parts List

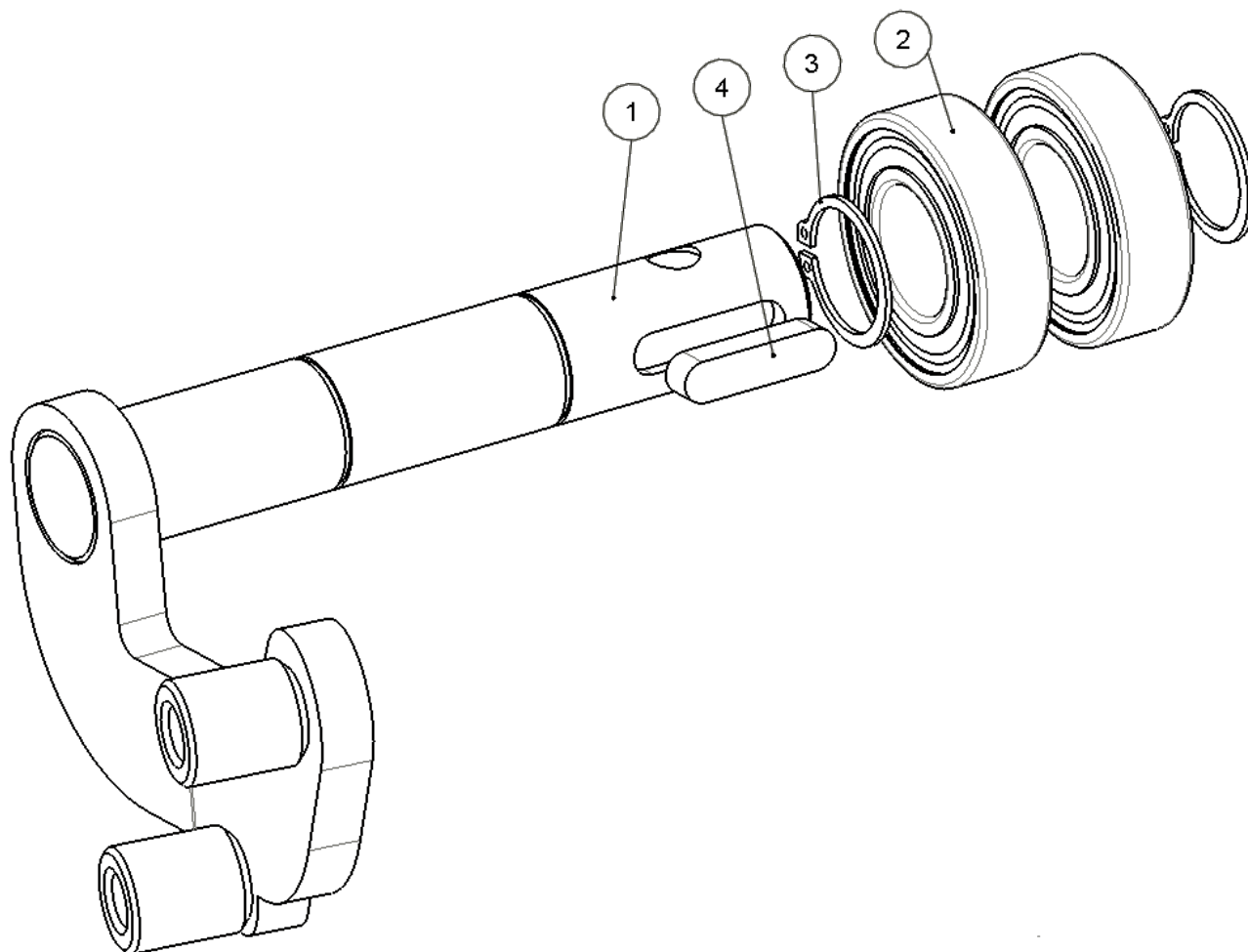
Drive Rod



Pos.	Number	Description	Technical details	Qty.
1	18302	Spherical Bearing	DIN ISO 12240-4 M12x50	2
2	28135	Threaded Rod	M12 l=190 10.9	1
3	091664	Nut	DIN 934 M12	2
1-3	28134	Connection Rod Assy		

Spare Parts List

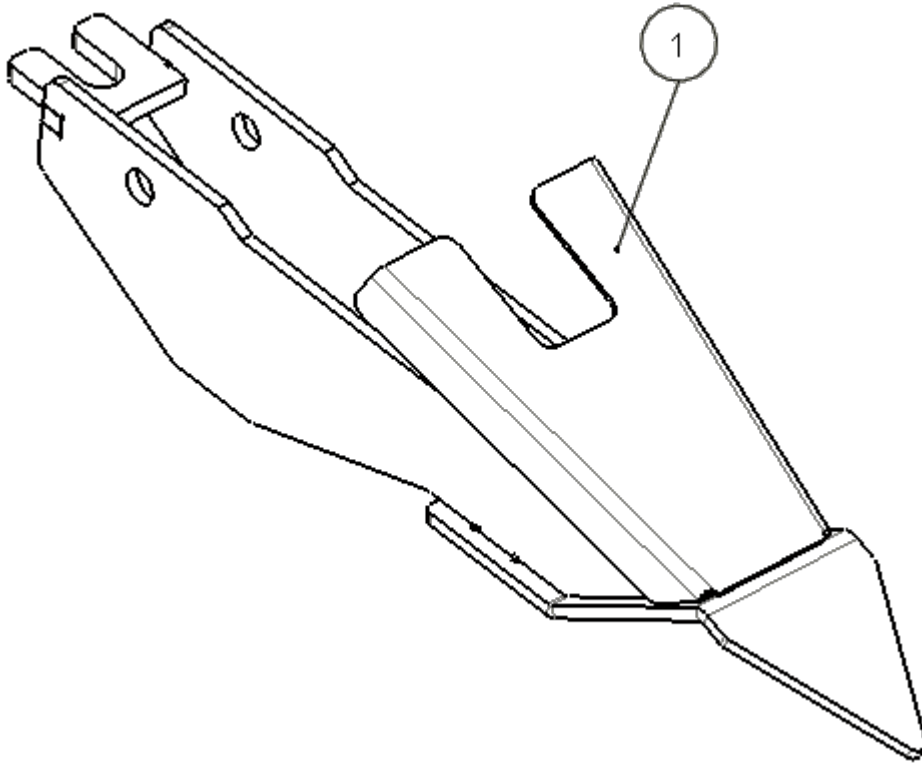
Drive Unit



Pos.	Number	Description	Technical details	Qty.
1	16362	Drive Shaft Left Back		1
	16372	Drive Shaft Right back		1
2	70416	Bearing	DIN 625 6205-2RSH- 25x52x15	2
3	70200	Snap Ring	DIN 471 25x1,2	2
4	70263	Feather Key	DIN 6885 A 8x7x32	1

Spare Parts List

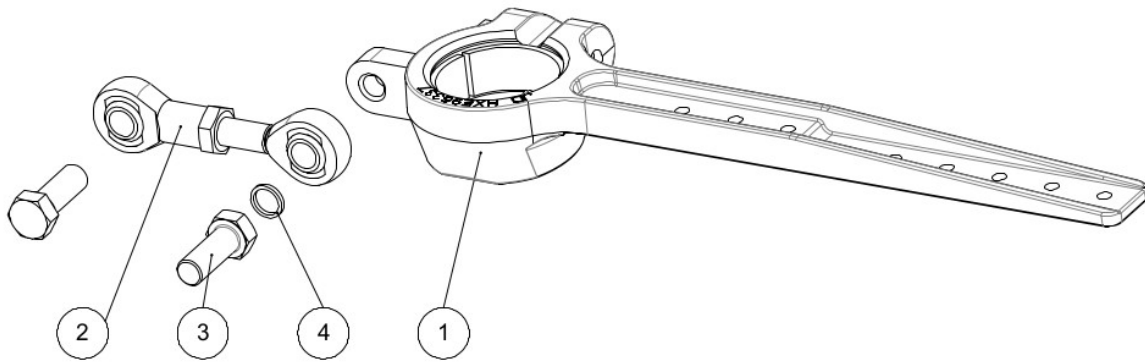
Divider



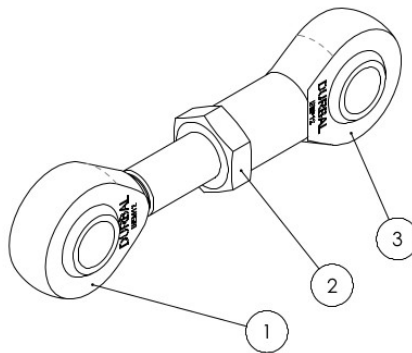
Pos.	Number	Description	Technical details	Qty.
1	16644	Divider complete		1

Spare Parts List

Knife Head



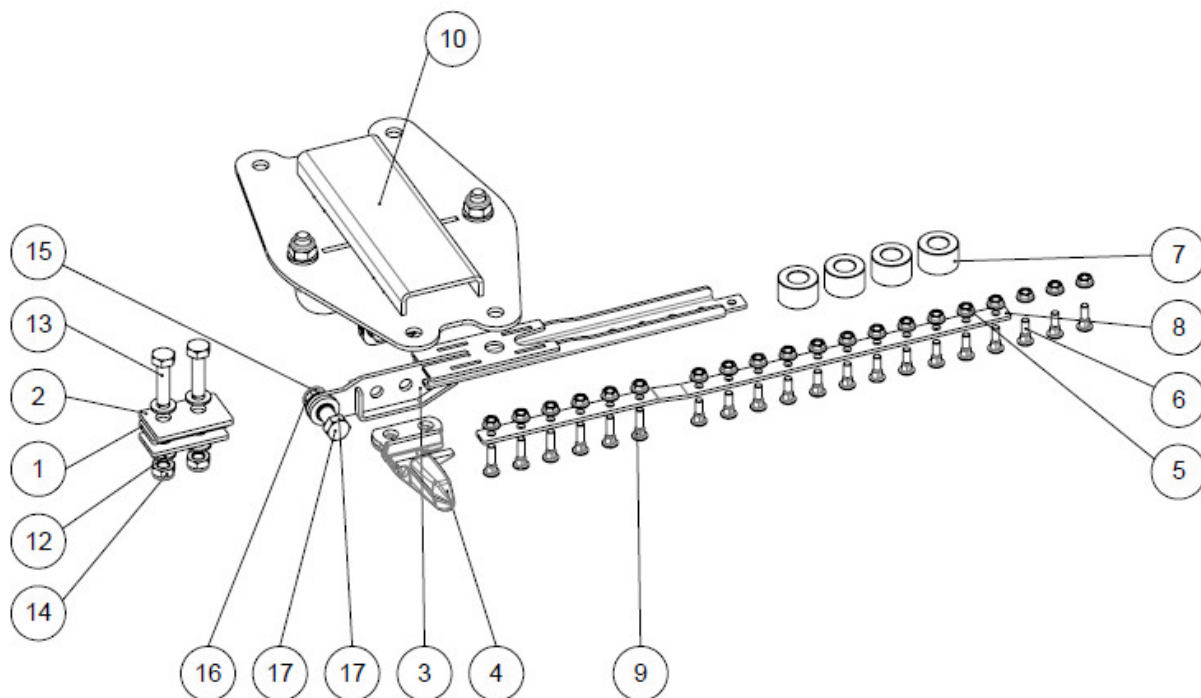
Pos.	Number	Description	Technical details	Qty.
1	16666	Knife head with support		1
2	18156	Eye Bolt Connection Rod		1
3	50356	Special Bolt	DIN 931 M12x45	2
4	18388	Distance Bushing		4



Pos.	Number	Description	Technical details	Qty.
1	18366	Eye Bolt	BEM-12-20-501	1
2	71121	Nut	DIN 936 M12	1
3	18157	Eye Bolt	BEF-12-20-501	2

Spare Parts List

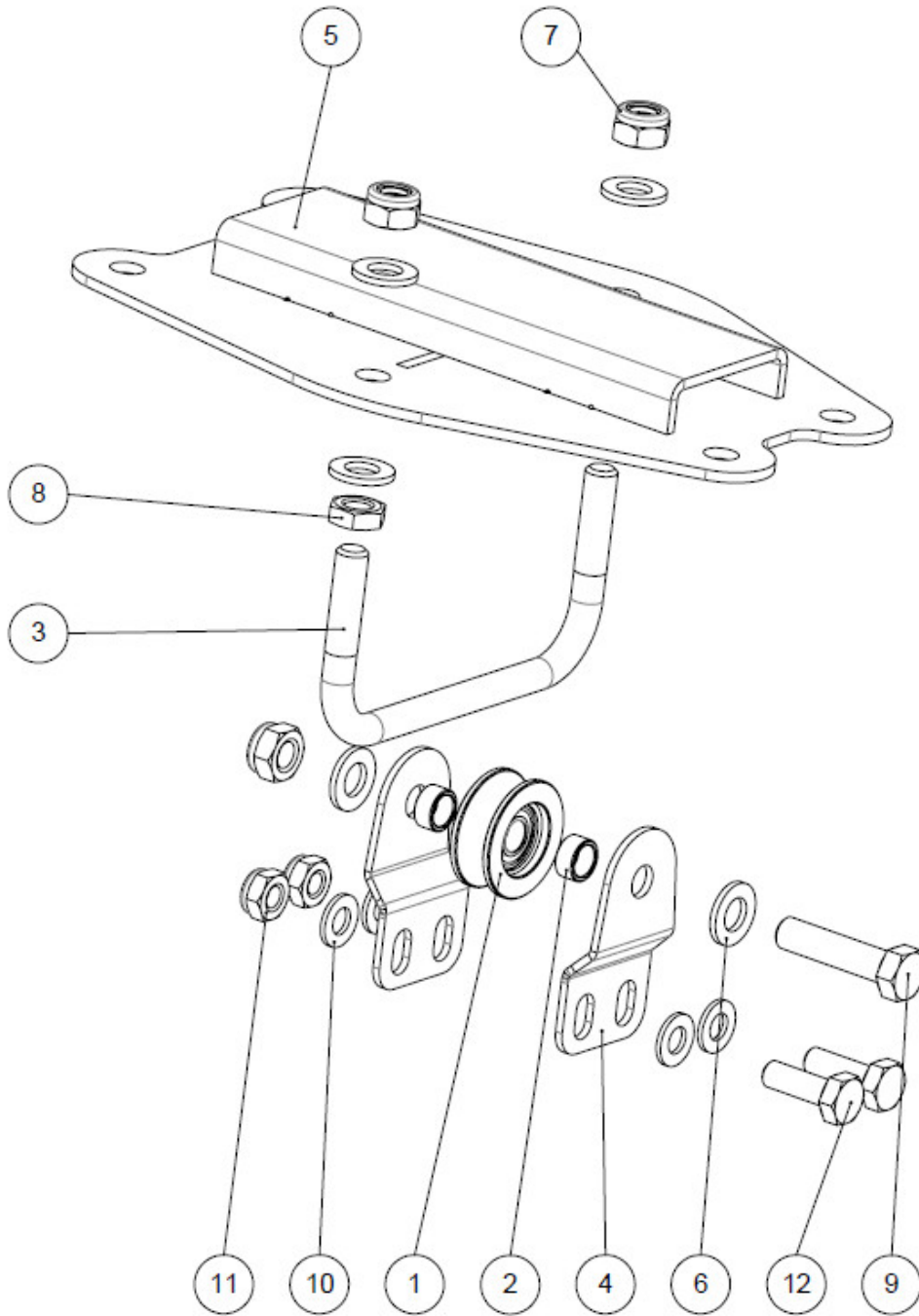
Option Single Drive



Pos.	Number	Description	Technical details	Qty.
1	16648	Support Plate 3,5mm		2
2	16649	Support Plate 4mm		1
3	16295	Right Side Knife Drive Plate	Single Drive	1
4	H228526	Finger 4 inch System		1
5	14M7303	Nut	DIN 6923 M6	20
6	H158342	Screw	M6x20	14
7	16274	Bushing Single Drive	33,7 x 17 l=20	4
8	16275	Bracket		1
9	H158343	Screw	M6x25	6
10		Knife Guide Single	see page 62	1
11	18388	Distance Bushing		2
12	70338	Washer	DIN 125 A10	4
13	70062	Bolt	DIN 933 M10x40	2
14	70021	Nut	DIN985 M10	2
15	70076	Washer	DIN 125 A – 12 – 140HV	1
16	70022	Nut	DIN 985 – M12 - 8	1
17	70139	Bolt	DIN 931 – M12x45 – 8.8	1

Spare Parts List

Knife Guide Single Drive

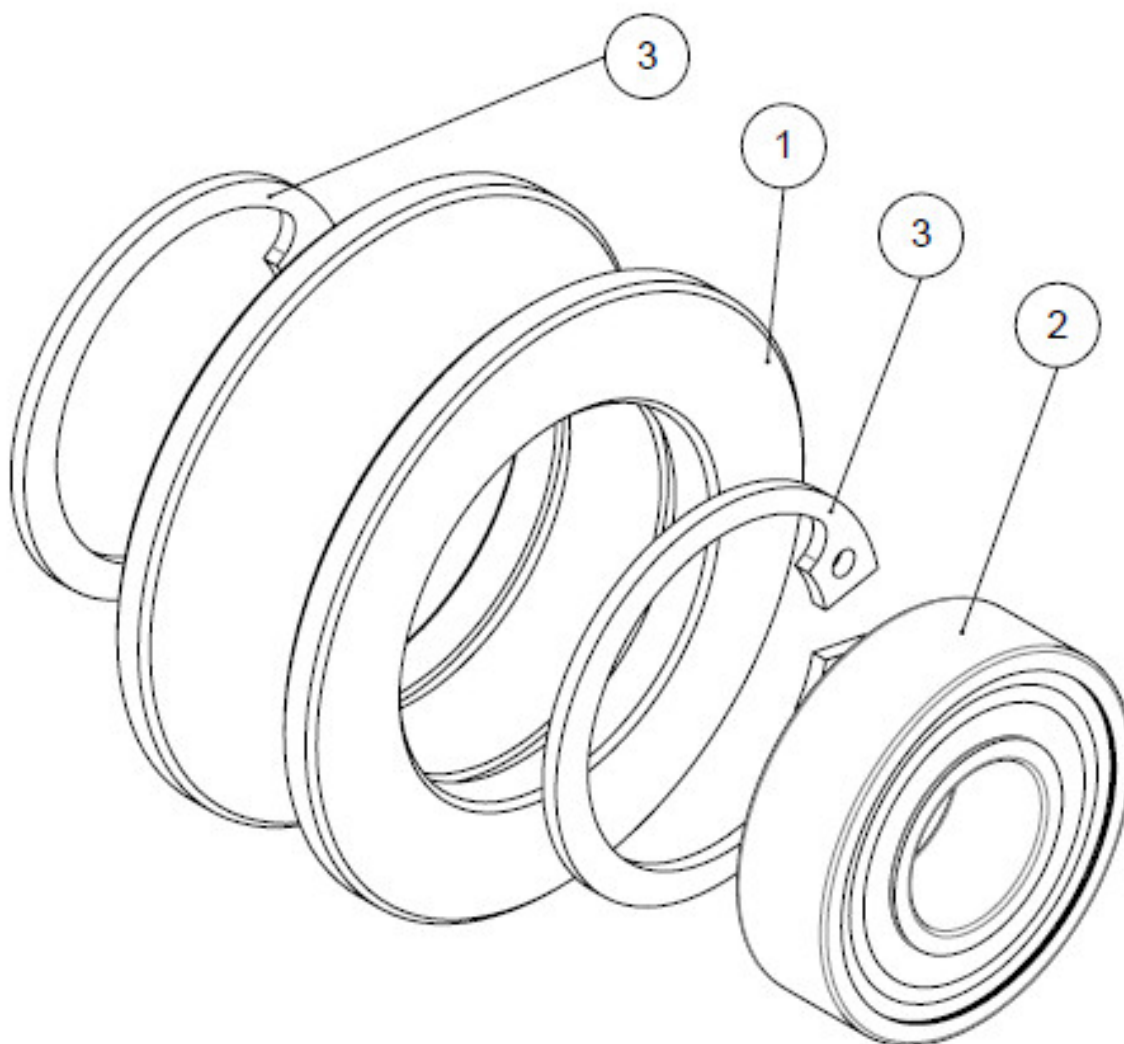


Spare Parts List

Pos.	Number	Description	Technical details	Qty.
1	16282	Roll Assy		1
2	16281	Bushing		2
3	16281	U-bolt roller guide	150x75xM12	1
4	16279	Bracket		2
5	16276	Bracket		1
6	70076	Washer	DIN 125 A – 12 – 140HV	6
7	70022	Nut	DIN 985 M12	3
8	71121	Nut	DIN 936 – M12 – 4	2
9	70160	Bolt	DIN 931 – M12x50 – 8.8	1
10	70075	Washer	DIN 125 A10	4
11	70021	Nut	DIN 985 M10	2
12	70061	Washer	DIN 125 A 12	2

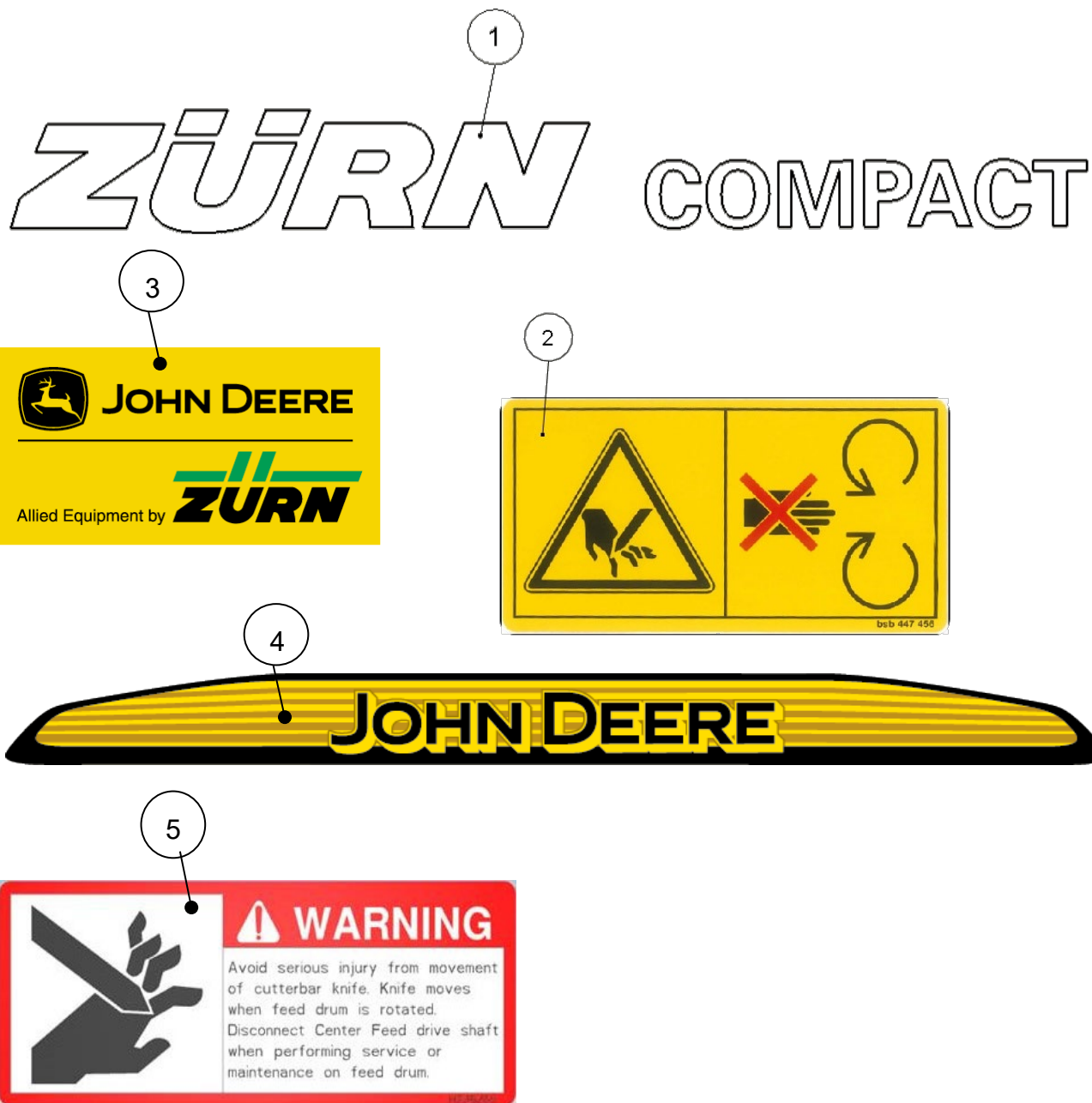
Spare Parts List

Roll Assembly



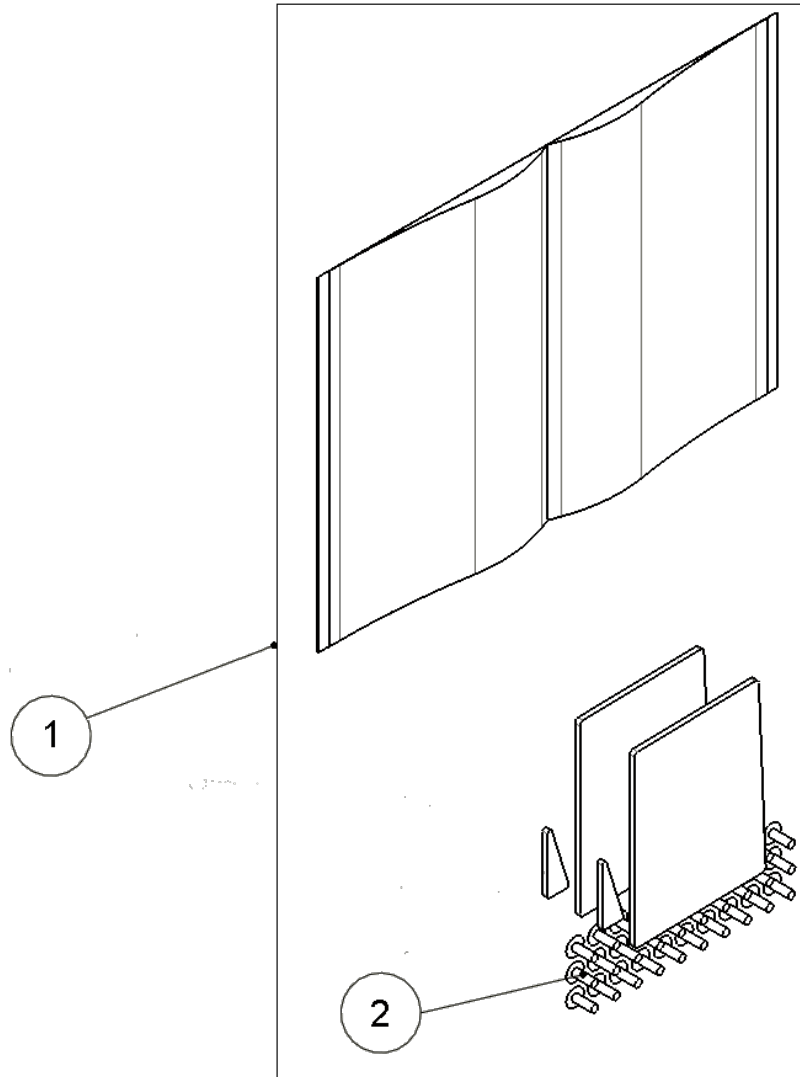
Pos.	Number	Description	Technical details	Qty.
1	16283	Roll		1
2	70410	Bearing	DIN625-6001-2RS 12x28-8	1
3	091706	Snap Ring	DIN472 28x1,2	2
1-3	16282	Roll Assy		1

Decals



Pos.	Number	Description	Technical details	Qty.
1	16229	Decal Compact		1
2	16213	Decal	Nr. 14 , HXE53133	1
3	16212	Decal	JD-Zürn Allied Equipment	1
4	16203	Decal	JD	1
5	H236260	Decal		1

Float Arm Support Reinforcements Kit



Pos.	Number	Description	Technical details	Qty.
1	BXE11164	Float Arm Support Reinforcement Kit		
2	HXE52669	Rivet		30

Maintenance

General service and maintenance instructions

Any service and maintenance work must be carried out by trained staff who are familiar with the mode of operation of the machine.

The engine of the towing vehicle must be shut off and all ancillaries must have come to stop before any service, maintenance or repair work can be carried out.

- Visually inspect the header transporter for damage, deformations and cracks in structural parts.
- Check the tyres for wear.
The minimum tread depth is 1.6 mm and must not be undercut. Damaged tyres must be replaced.
- Check the lights for proper function.
- Replace defective components.

The manufacturer accepts no liability if the instructions on service and maintenance are not observed. The manufacturer neither accepts liability for any damage caused by improper service and maintenance.



Cleaning the machine regularly helps to preserve its paint finish. Cleaning the contaminated parts fairly promptly helps to prevent fading and corrosion. It is best to repair any damage to the paint coat immediately.

CAUTION! Avoid using a pressure washer to clean those areas that contain bearings and hydraulic components. A pressure washer that is set to an excessive pressure is at risk of damaging the paint finish.



Maintenance

Wear suitable protective clothing!




Disconnect the driveline before working on the mechanical drive components.

Always disconnect the electric line before working on the electrical system.

Lubrication and Oils

The service intervals given below are based on an average utilisation of the machine. Reduce these service intervals, if the machine is used at above-average levels.

The specific lubricant to be used is indicated by a symbol. These symbols are explained in the table below.

Type of service	Type of lubricant	Comment
Grease 	Multi-purpose grease	Grease nipples: Apply about two shots of grease from the grease gun. Remove any excessive grease from the nipple.
Lubricate 	Vegetable oils unless specified otherwise	Sliding surfaces: Apply a thin film of the oil with a brush or a spray can. Remove any excessive oil.
Oil 		Apply a uniform film of oil on the surface.

CAUTION!

Lubricants are a hazard to the environment if stored and disposed of incorrectly.

- Store the lubricants in suitable bins and in accordance with the legal requirements.
- Dispose of used lubricants in accordance with the legal regulations.



IMPORTANT!

Immediately replace missing grease nipples. Clean the grease nipples thoroughly before greasing them.



Lubrication and Oils

Grease

Select grease according to NLGI consistency and the outdoor temperatures expected until the next servicing.

The following grease is recommended:

Shell Alvania Grease RL 2, Gadus S2 V100 2, John Deere Grease-Gard Premium, Petronas Grease CA 00

Other greases can be used if they meet the specifications.

Bowdenzüge mit Fettpressölen, nicht mit Fettschmierem.

Position of Lubrication Points

ATTENTION:

Never lubricate or service the side knife with the engine running.



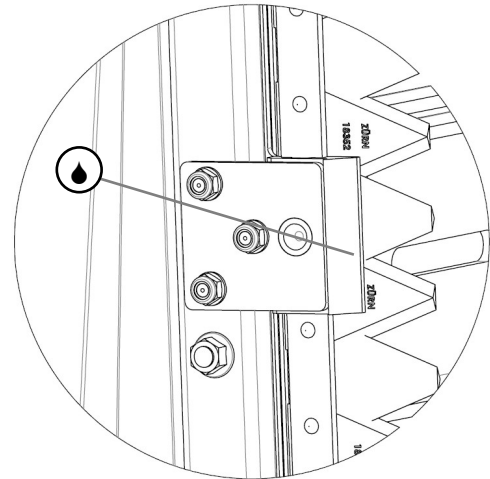
ATTENTION:

The recommended maintenance periods are based on normal working conditions. If the operating conditions are difficult, carry out maintenance more often.

ATTENTION:

It is normal for the knife guide to become very warm during operation. Do not use excessive lubrication to lower the temperature.

Lubrication point of the knife guide (A)



Torques for metric bolts

Bolts	Grade 4.8				Grade 8.8 or 9.8				Grade 10.9				Grade 12.9			
	Oiled ^a		Dry ^b		Oiled		Dry ^b		Oiled		Dry ^b		Oiled		Dry ^b	
Size	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in
M6	4.7	42	6	53	8.9	79	11.3	100	13	115	16.5	146	15.5	137	19.5	172
M8	11.5	102	14.5	128	22	194	27.5	243	32	23.5	40	29.5	37	27.5	47	35
M10	23	204	29	21	43	32	55	40	63	46	80	59	75	55	95	70
M12	40	29.5	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	46	80	59	120	88	150	110	175	130	220	165	205	150	260	190
M16	100	74	125	92	190	140	240	175	275	200	350	255	320	235	400	300
M18	135	100	170	125	265	195	330	245	375	275	475	350	440	325	560	410
M20	190	140	245	180	375	275	475	350	530	390	675	500	625	460	790	580
M22	265	195	330	245	510	375	650	480	725	535	920	680	850	625	1080	800
M24	330	245	425	315	650	80	820	600	920	680	1150	850	1080	800	1350	1000
M27	490	360	625	460	950	700	1200	885	1350	1000	1700	1250	1580	1160	2000	1475
M30	660	490	850	625	1290	950	1630	1200	1850	1350	2300	1700	2140	1580	2700	2000
M33	900	665	1150	850	1750	1300	2200	1625	2500	1850	3150	2325	2900	2150	3700	2730
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2770	4750	3500
<p>The tightening torques given are guideline values. Do NOT use these values if a different torque or another securing method is specified for a specific application. For stainless steel bolts and nuts for stirrup bolts, see specific instructions. Tighten locking nuts with plastic insert or edge-raised steel locking nuts to the corresponding torque for dry bolts and nuts given in the table unless otherwise instructed.</p>								<p>Shear pins are designed to break at a certain load. When replacing shear pins, use only pins of the same grade. When replacing bolts and nuts, make sure that equivalent parts of the same or a higher grade are used. Tighten higher-grade nuts and bolts to the same torque as the originally used parts. Make sure that the thread is clean and the bolts correctly fitted. If possible, oil normal and galvanised nuts and bolts (except for locking nuts and wheel studs or nuts) unless specified otherwise for the specific application.</p>								
<p>"Oiled" means that a lubricant, such as engine oil, is applied to the bolts or that phosphatized or oiled bolts with a size from M20 are used.</p>																
<p>"Dry" means the use of normal or galvanised bolts without lubrication or bolts with a size between M6 and M18 that are zinc-coated.</p>																

Faults and Troubleshooting

Fault	Cause	Remedial Action
Cut trouble side knife	Knife Sections are bent	Adjust the knife guiding. Guiding are damaged and worn out. Replace damaged guiding.
	Side Knife is bent. No divider is mounted	Replace the knife and mount the divider
	Latch is open	Check the latch if they are close. Check the hooks.
Side Knife without function	GIR-GAR damaged	Replacing the parts
Vibration at the draper	Knife hub do not adjust correctly	Knife hub adjust correct the side knife
	Single Drive roller hits the U-bolts	Adjust the roller guiding

General terms of guarantee

Zürn Harvesting GmbH & Co. KG, Kapellenstraße 1, D-74214 Schöntal-Westernhausen (hereinafter “Zürn Harvesting”) hereby certifies for each customer who has purchased a new Zürn Harvesting machine from an authorised dealer that the materials and workmanship of this machine are guaranteed under the conditions specified below, providing that the machine is put into operation and maintained in accordance with the specifications in the operating instructions.

I. Duration of the guarantee

The guarantee period is one year from delivery of the machine by Zürn Harvesting and is valid for up to 500 operating hours within this period. The replacement of individual parts or repair will not prolong the above guarantee period for the machine.

II. Scope of the guarantee

The guarantee embraces only the reimbursement or repair of the parts and reimbursement of work time required in order to effect the repair, based on the repair times allowed by Zürn Harvesting, under the prerequisite that the fault was determined by our technical customer service department and was acknowledged by Zürn Harvesting to be attributable to faulty materials or workmanship. Replaced parts will become the property of Zürn Harvesting. The customer must allow services received from the vendor/dealer under warranty to be credited to the guarantee.

The guarantee does not cover any further claims against Zürn Harvesting. This means in particular that travel and transport costs will not be reimbursed, nor will Zürn Harvesting be liable for consequential damage, such as loss of harvest or losses of income.

III. Limitations of the guarantee

The guarantee does not apply to defects or faults that are attributable to:

- usual wear and tear;
- failure to heed operating, storage or transport instructions contained in the operating manual;
- use other than as intended, inadequate maintenance, inexpert operation or excessive use;
- damage caused to the machine or its equipment caused during transportation or loading; machines, equipment and parts are shipped at the risk of the recipient;
- external influences on the machine, e.g. third-party damage, weathering or other natural occurrences;
- circumstances that were known to the buyer at the time of purchase.

The guarantee will be rendered null and void if technical modifications are made to the machine without the written consent of Zürn Harvesting or if spare parts other than original Zürn Harvesting spare parts are installed and/or if repairs were not carried out by an authorised dealer. The guarantee is likewise voided if the machine was not put into service for the first time by the dealer in accordance with the instructions of Zürn Harvesting.

General terms of guarantee

IV. Assertion of the guarantee

The terms of the guarantee are dependent upon precise observance of the following regulations by both the dealer and the purchaser:

- The guarantee card (machine card) completed by the dealer and customer must be returned to Zürn Harvesting by post or e-mail as soon as the machine has been delivered to the customer.
- Applications for guarantee claims must be formulated on the corresponding Zürn Harvesting form and presented to Zürn Harvesting by the dealer within one calendar month of discovery of the defect/fault.
- The application must be completed legibly and must contain the following information:
 - Name, address and dealer customer number
 - Name and address of the purchaser
 - Exact machine type and designation
 - Complete serial number of the machine
 - Date of delivery to the dealer and to the purchaser
 - Date of the claim
 - Number of operating hours or acreage harvested by the machine
 - Exact description of the damage and information regarding the probable cause
 - Quantity, item numbers and description of damaged parts

The parts reported as damaged must be returned to Zürn Harvesting free of charge for appraisal, complete with a copy of the guarantee claim application. Any costs incurred for returning the parts replaced or repaired will be borne by the sender.

If the guarantee claim application is refused, the dealer or the customer has a period of 15 days, starting from the day the Zürn Harvesting decision was received, to demand return of the damaged parts. Once this period has elapsed, the parts will be disposed of.

V. Additional clauses

Claims under the guarantee may not be transferred to third parties without the prior, written consent of Zürn Harvesting.

The dealer has neither the right nor the authority to make declarations or to enter into a commitment etc., whether express or implied, in the name of Zürn Harvesting.

The technical support for repair of the machine given by Zürn Harvesting or their representatives excludes any further liability whatsoever by Zürn Harvesting and has no influence whatsoever on the existing terms of guarantee.

Zürn Harvesting reserves the right to modify the design of the machine without prior notice. It is not obliged to transfer such modifications to machines which have already been sold or are in use.

Furthermore, due to the rapid development of the state of the art, no guarantee can be given for the machine descriptions contained in these operating instructions or other technical leaflets and data sheets.



EU Certificate of Conformity

EG- Konformitätserklärung nach Maschinenrichtlinie 2006/42/EG

Bitte sorgfältig aufbewahren, jedoch nicht im Fahrzeug

EU CERTIFICATE OF CONFORMITY According to Machinery Directive 2006/42/EG

Please keep safely, not inside the vehicle

Hiermit bestätigt die <i>Hereby declares</i>	Zürn Harvesting GmbH & Co. KG	
in alleiniger Verantwortung dass das landwirtschaftliche Anbaugerät <i>the full responsibility for the agricultural implement</i>	Fabrikmarke <i>Brand</i>	Zürn Harvesting
	Typ <i>Type</i>	Compact
genehmigt in <i>approved in</i>	Schoental	
am <i>on</i>	18.01.2002	
durch den <i>by the</i>	Hersteller / manufacturer	
den grundlegenden Sicherheits- und Gesundheitsanforderungen der Richtlinie 2006/42/EG entspricht. <i>to full fill the complete safety- and health requirements according to machinery directive 2006/42/EG.</i>		
Zur sachgerechten Umsetzung der in den EU- Richtlinien genannten Sicherheits- und Gesundheitsanforderungen wurden folgende Normen herangezogen: <i>For proper implementation according to the EU- Directives for health and safety requirements, the following standards were used:</i>	DIN EN ISO 4254-1 (06/06) DIN EN ISO 632 (08/95)	
Geschehen zu <i>Done at</i>	Schoental	
am <i>on</i>	05/03/2002	
	 Rolf Zürn Geschäftsführer, CEO	

Notes

Zürn Harvesting GmbH & Co. KG
Eichenstraße 27
D-74747 Ravenstein- Merchingen

Tel.: +49 6297 92885-0
Fax: +49 6297 92885-19
E-Mail: info@zuern.de

Internet: www.zuern.de