

SCORPIO 550 SF
ASSEMBLY INSTRUCTIONS AND SETUP

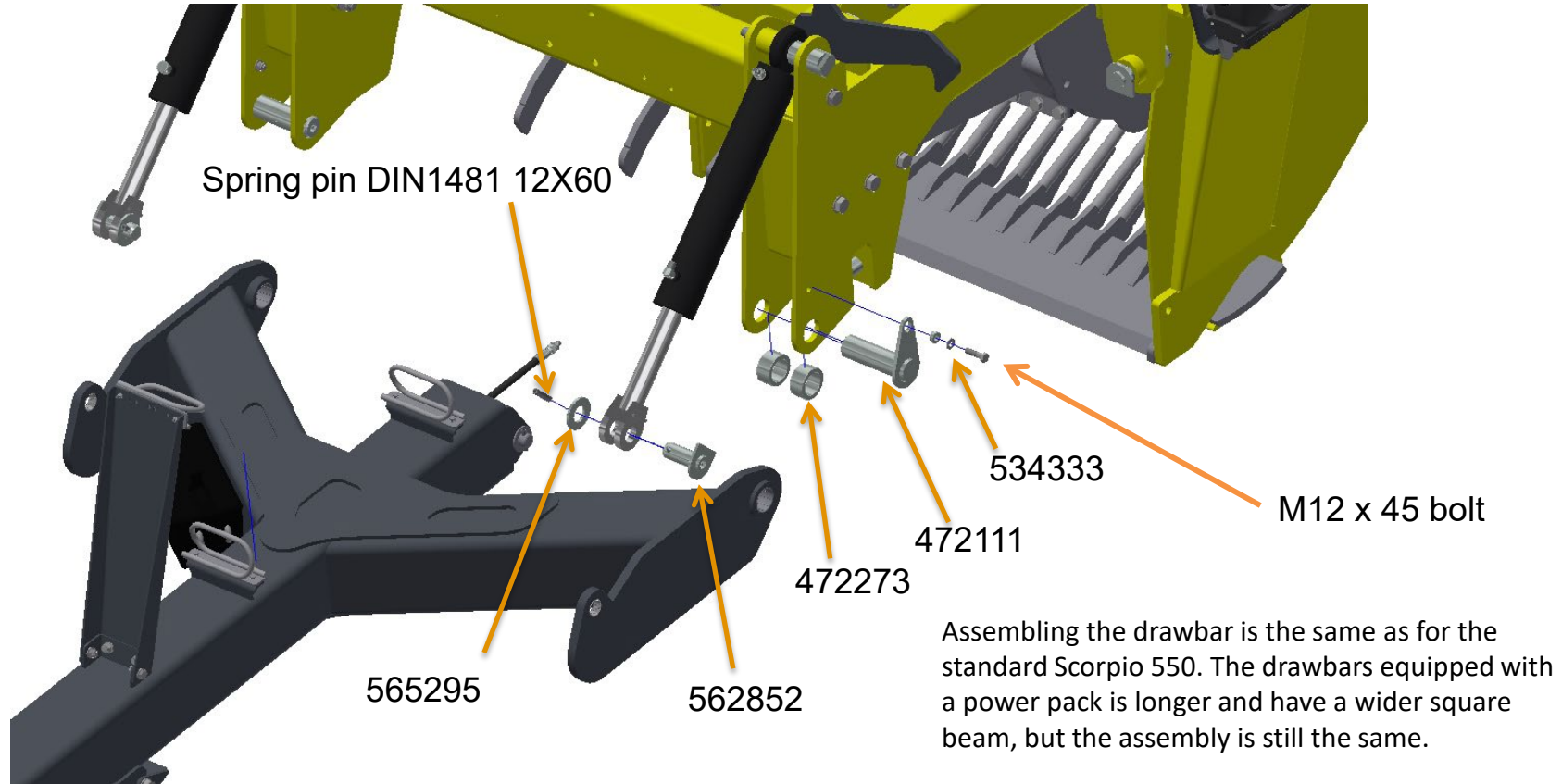


SCORPIO SF EXPORT ASSEMBLY AND SETUP



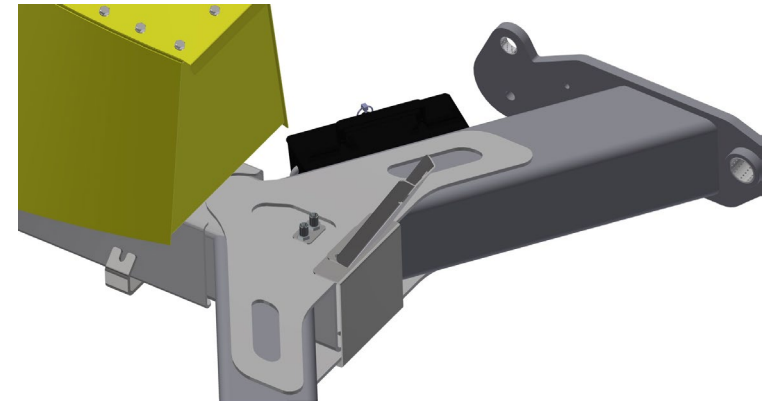
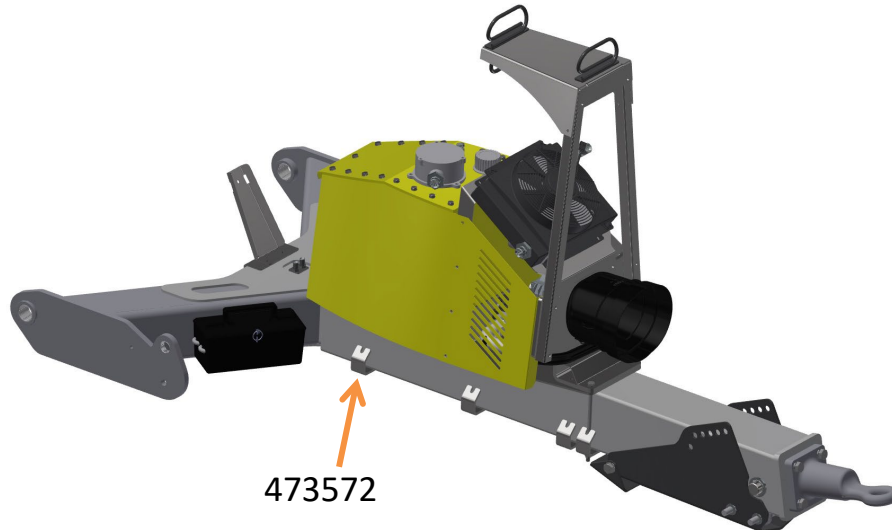
| | |
|---------|------------------------------|
| Page 3 | Assembling the drawbar |
| Page 8 | Assembling the wheels |
| Page 9 | Assembling the rakes |
| Page 13 | Assembling the bumper frame |
| Page 14 | Assembling the side conveyor |
| Page 21 | Side conveyor setup |
| Page 34 | Hydraulic unit setup |
| Page 35 | Inlet module selector |

ASSEMBLING THE DRAWBAR



ASSEMBLING THE DRAWBAR

The drawbar for the hydraulic unit has two hydraulic fittings going through the pipe, one connects to the valve on page 5 and the other to a tank line. The hoses are marked with a permanent marker to help.



The Hydraulic unit connects onto the drawbar with brackets 473572 and long m12 bolts. The length of the PTO shaft need to be checked and may need to be cut to fit.

CONNECTING SIDE CONVEYOR DRIVE MOTOR



On the new drawbar the hoses for the telescopic cylinder go through the square pipe. One of the hoses connects to the valve adjusting the pressure when the telescope will extend. The other hose connects to a port marked T on the main block.

TELESCOPIC DRAWBAR SETUP



The pressure at which the telescopic drawbar extends is adjustable using this valve located on the right hand side of the main hydraulic block.

Loosen the set screw two full revolutions and adjust it in or out from there depending on the working conditions and operator preference.

If the drawbar extends fully when the machine is operated with the automatic depth control the operator may manually need to lift the machine all the way up before the drawbar retracts.

Hose from drawbar

CONNECTING SIDE CONVEYOR DRIVE MOTOR



This is where the one hose for the drawbar connects.

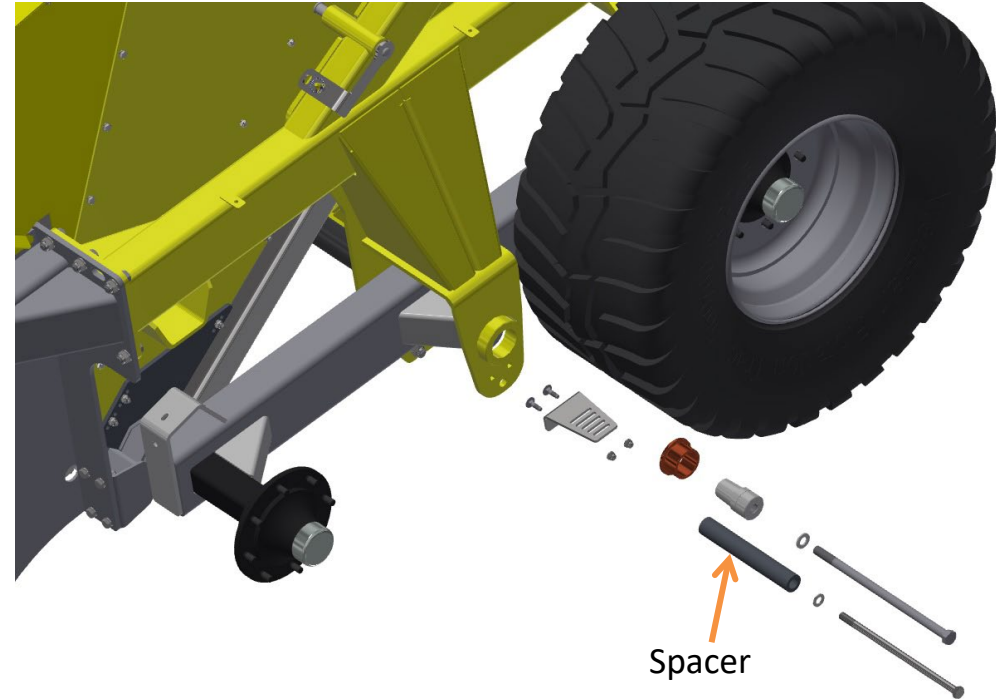
During assembly at the factory the workers have marked these with either a cable strap or permanent marker.

If the hoses are connected the wrong way the drawbar will go out everytime you try to lift the machine. If this happens switch where the two hoses are connected.

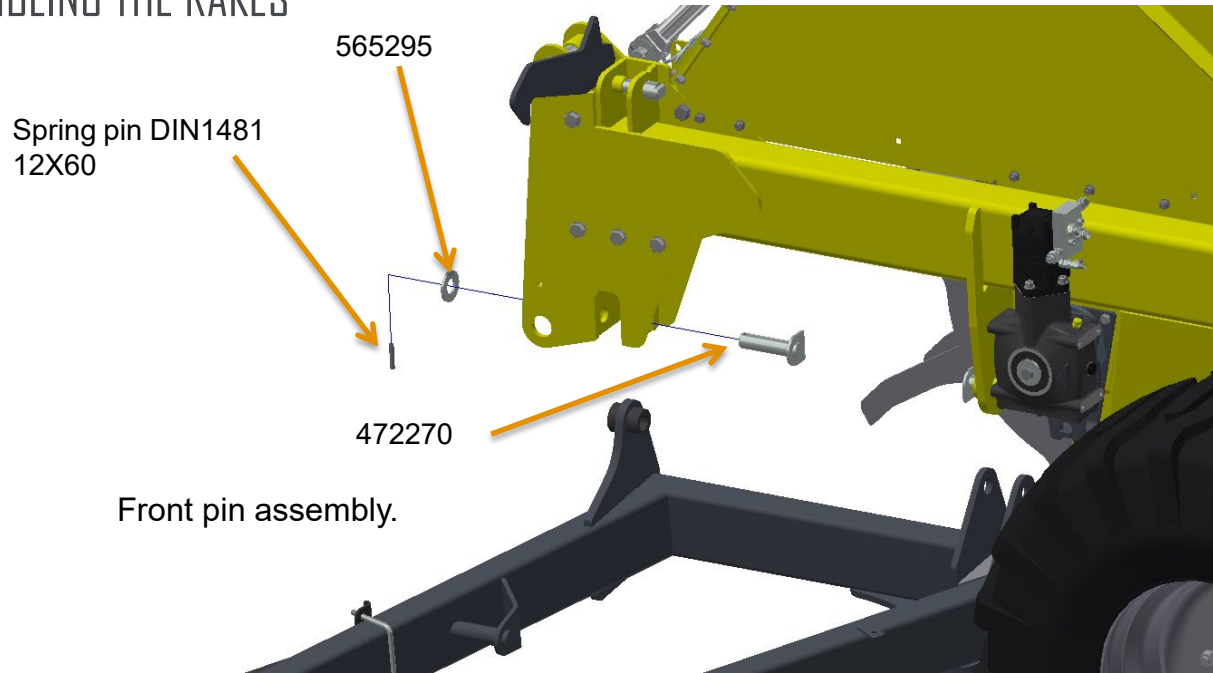
ASSEMBLING THE WHEELS

The process of assembling the wheels for the Scorpio 550 SF is very similar to assembling the wheels on a standard 550.

- The tandem wheel axle is the same and the wheels are the same.
- The bronze bearing in the frame and the straight surface on the bearing has been increased
- A footstep has been added
- A long spacer has been added to stiffen the rear frame under the tandem wheel axle.

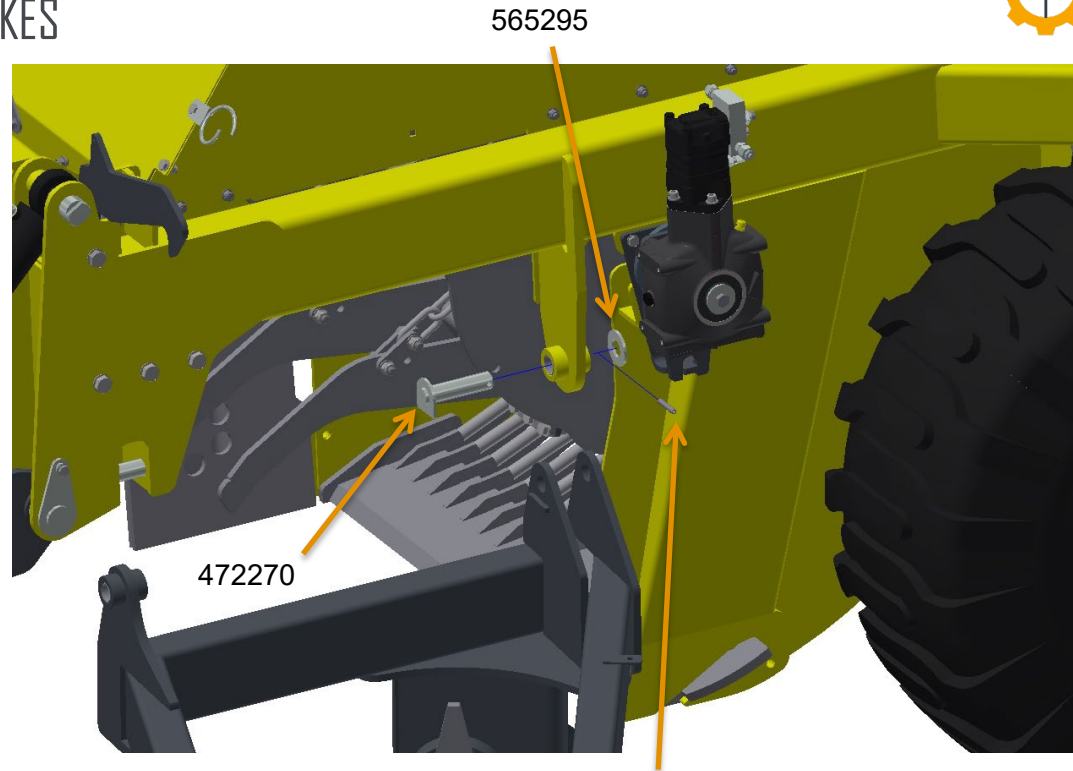


ASSEMBLING THE RAKES



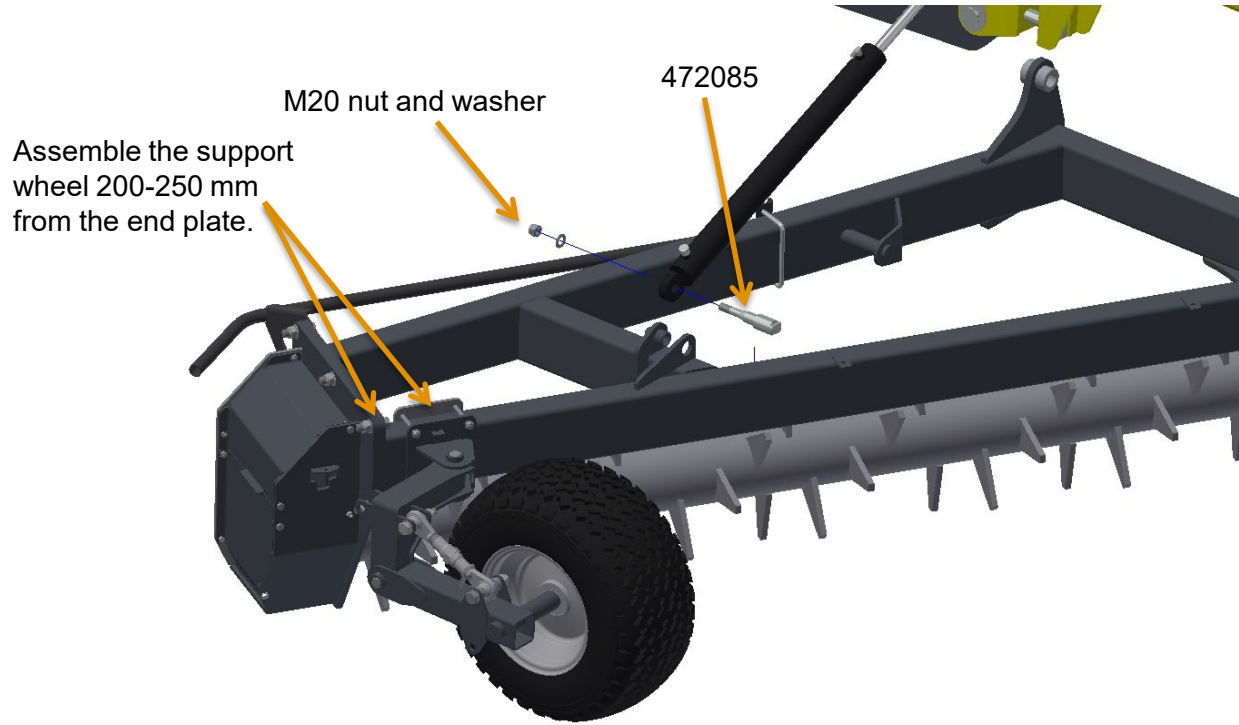
The assembly of the rakes are the same for Scorpio 550
and Scorpio 550 SF.

ASSEMBLING THE RAKES

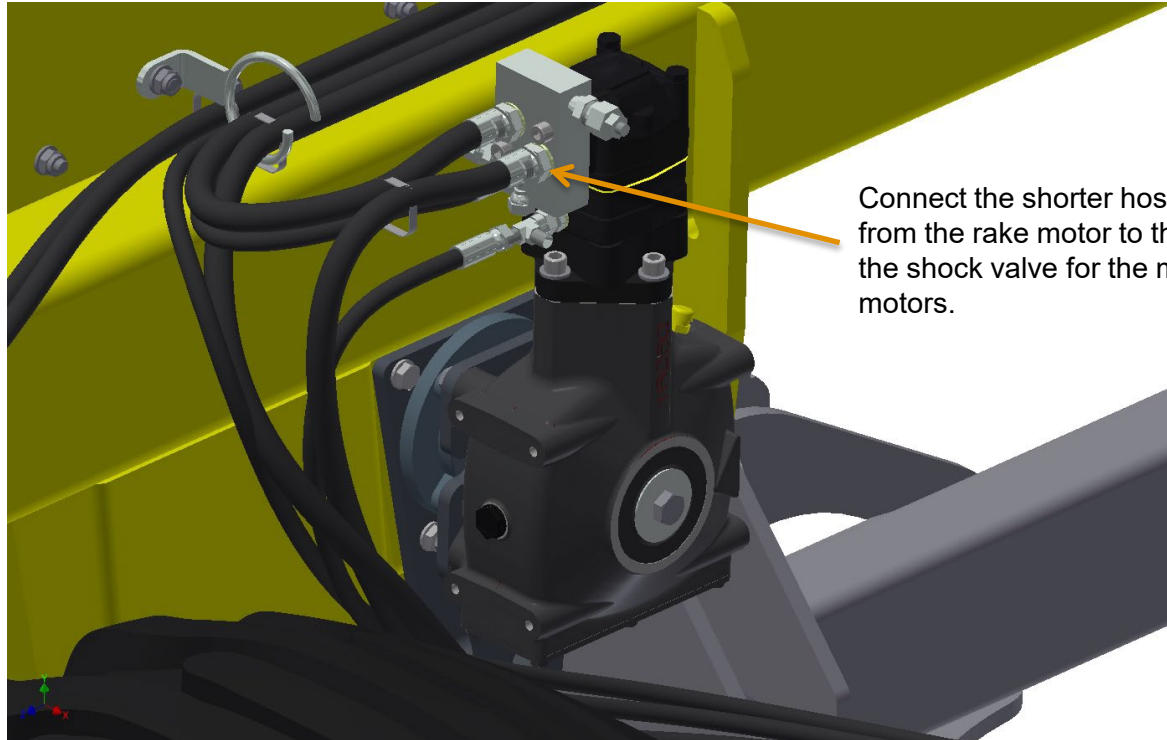


Spring pin DIN1481
12X60

ASSEMBLING THE RAKES



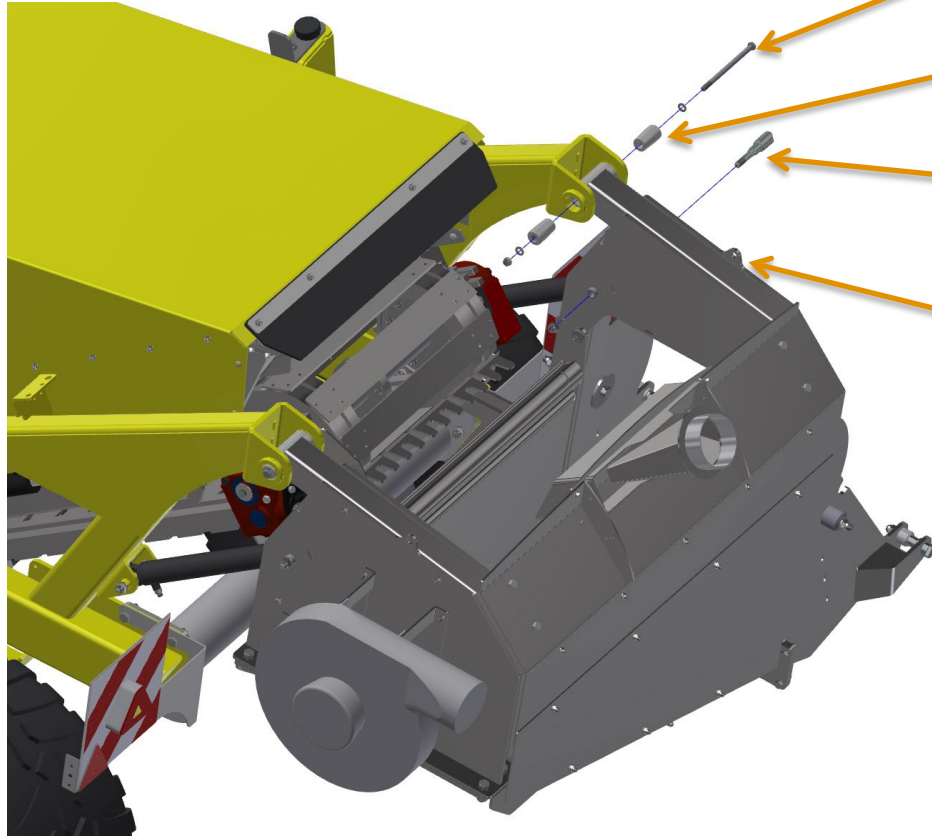
ASSEMBLING THE RAKES



Connect the shorter hose (145669) from the rake motor to the outer port on the shock valve for the main rotor motors.



ASSEMBLING THE BUMPER FRAME



M16x260

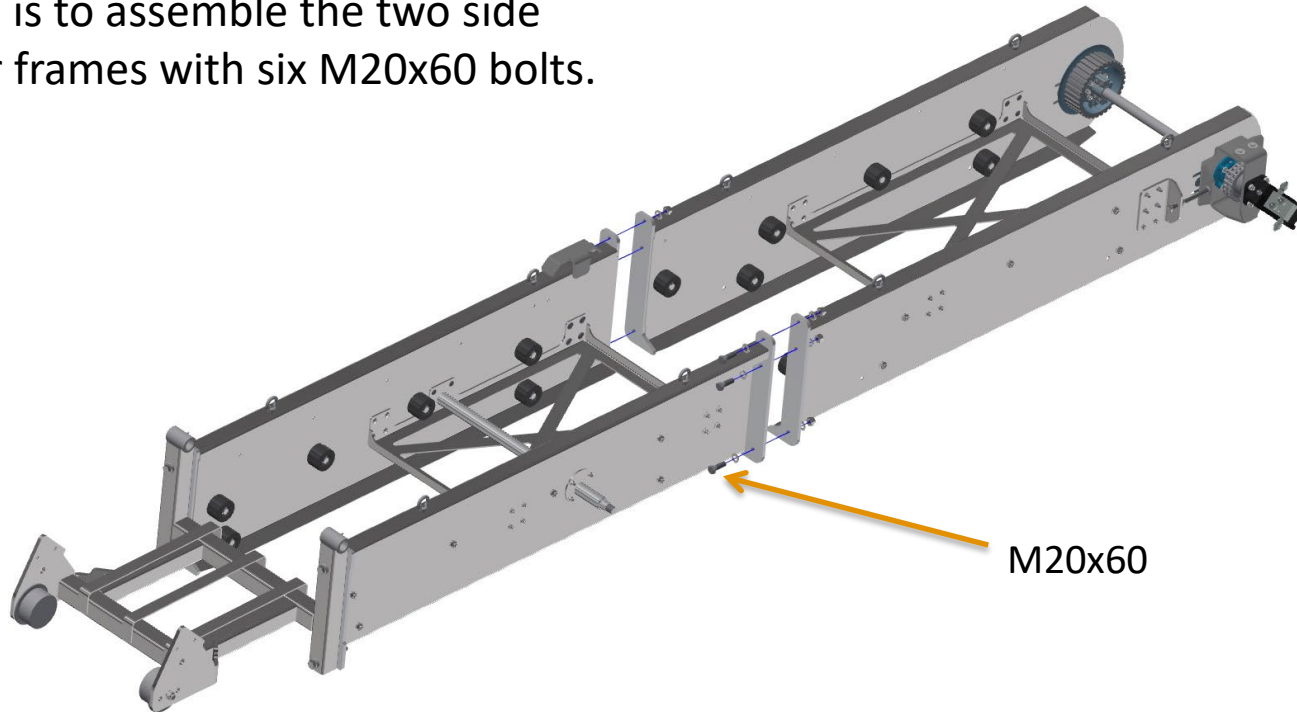
Tapered pin, 413419

Cylinder pin, 472085

Lifting point

ASSEMBLING THE SIDE CONVEYOR

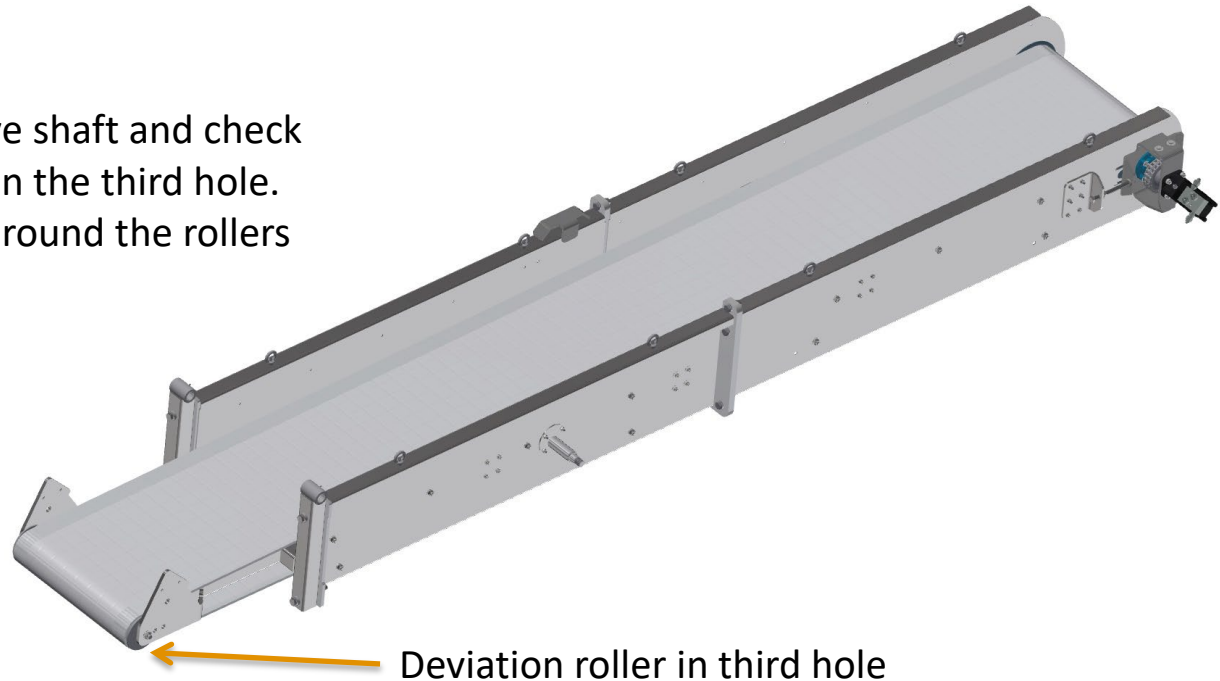
First step is to assemble the two side conveyor frames with six M20x60 bolts.

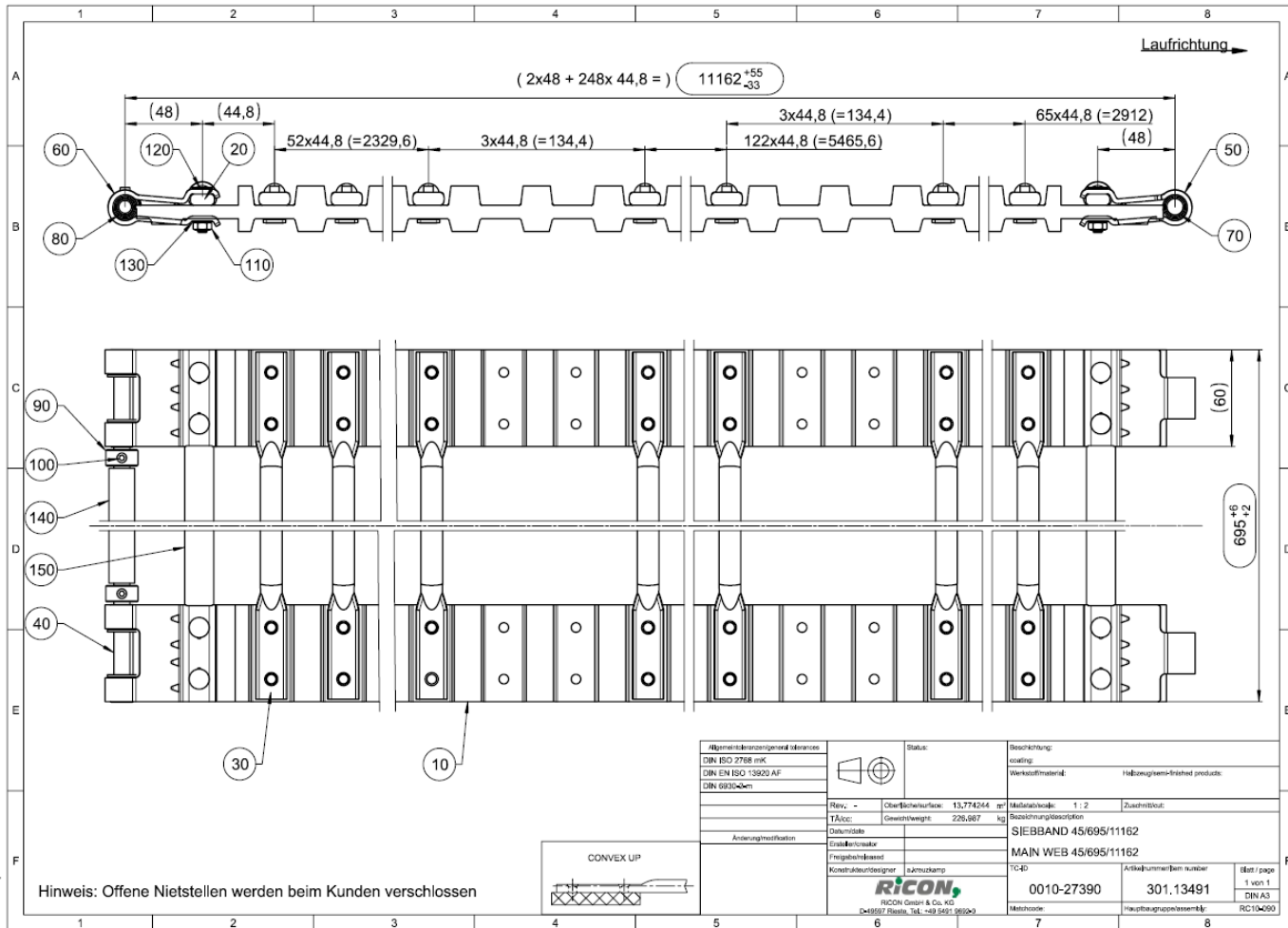


ASSEMBLING THE SIDE CONVEYOR

Step two is to assemble the conveyor web using the steel rod number 40 on the drawing on the next page.

Loosen and retract the drive shaft and check that the deviation roller is in the third hole. Before wrapping the web around the rollers and joining the ends.

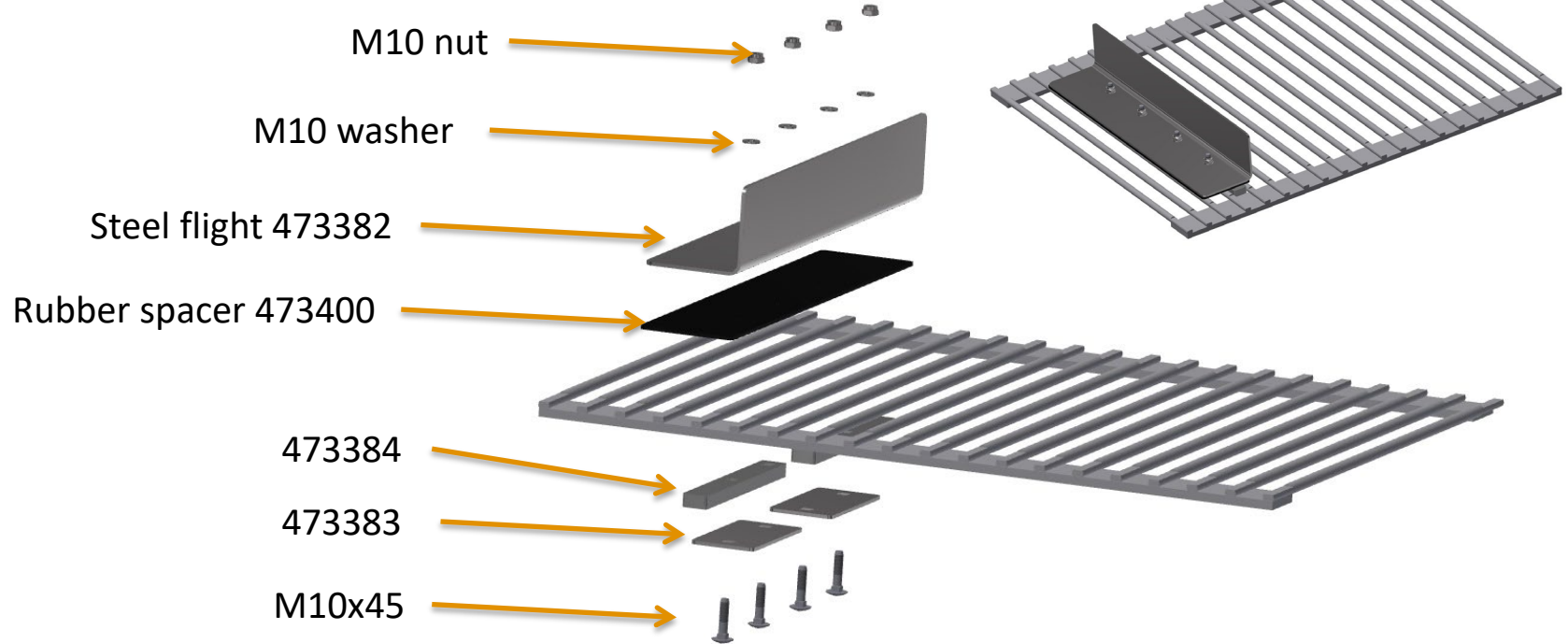




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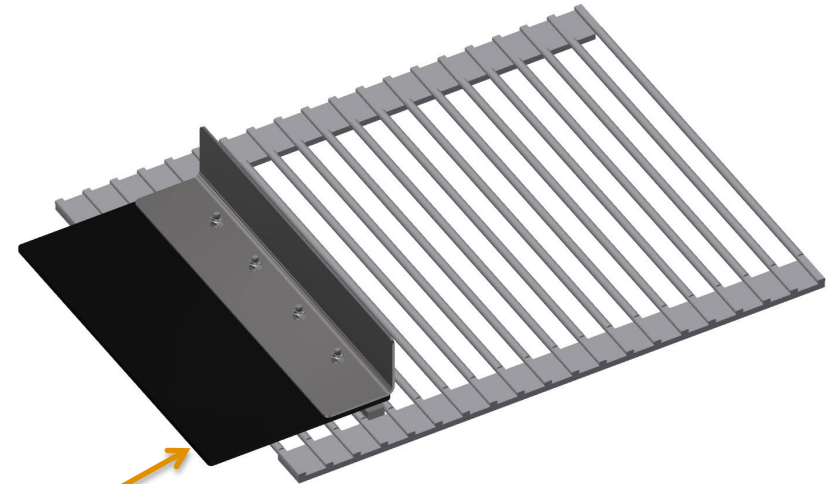
ASSEMBLING THE SIDE CONVEYOR

The flights can be assembled after the web is joined and before assembling the whole side conveyor onto the machine.



ASSEMBLING THE SIDE CONVEYOR

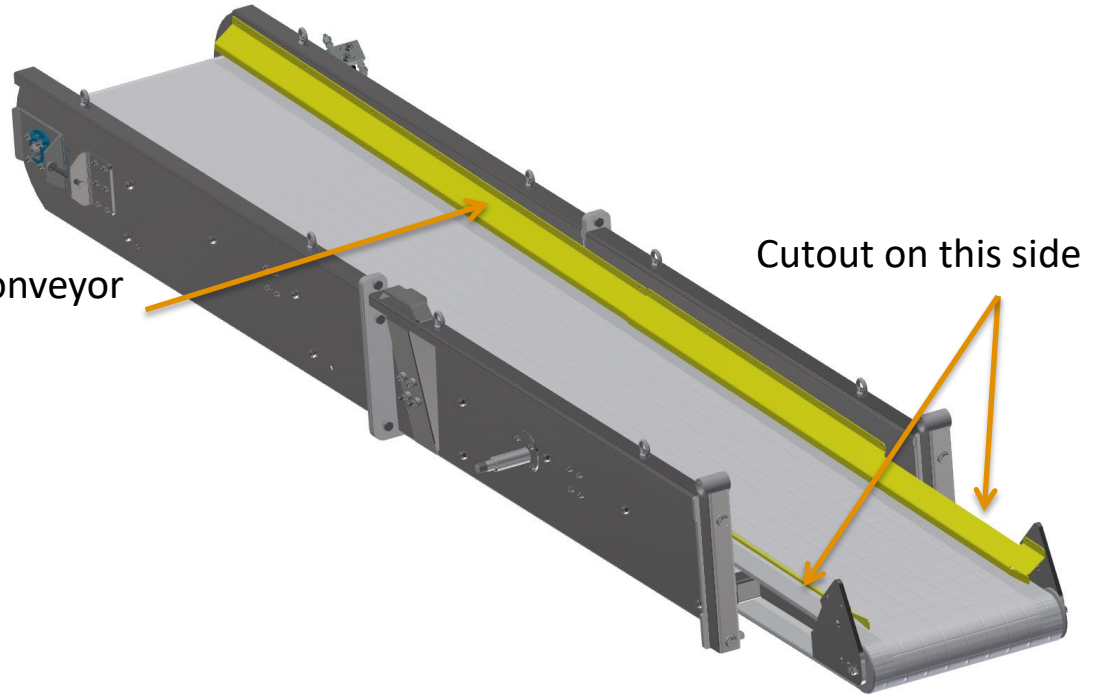
- The steel flights are assembled about 560 mm in-between each other
- To reinforce the joining rod, one steel flight can be assembled so it clamps and holds the joining rod in place.
- On two places a couple rods have been left out from the web creating a gap. Assemble a steel flight just before the gap and cover the gap with the longer rubber spacer. The purpose of this is so stones can escape from the inside of the web when this rubber spacer go around the deviation roller and open the gap.



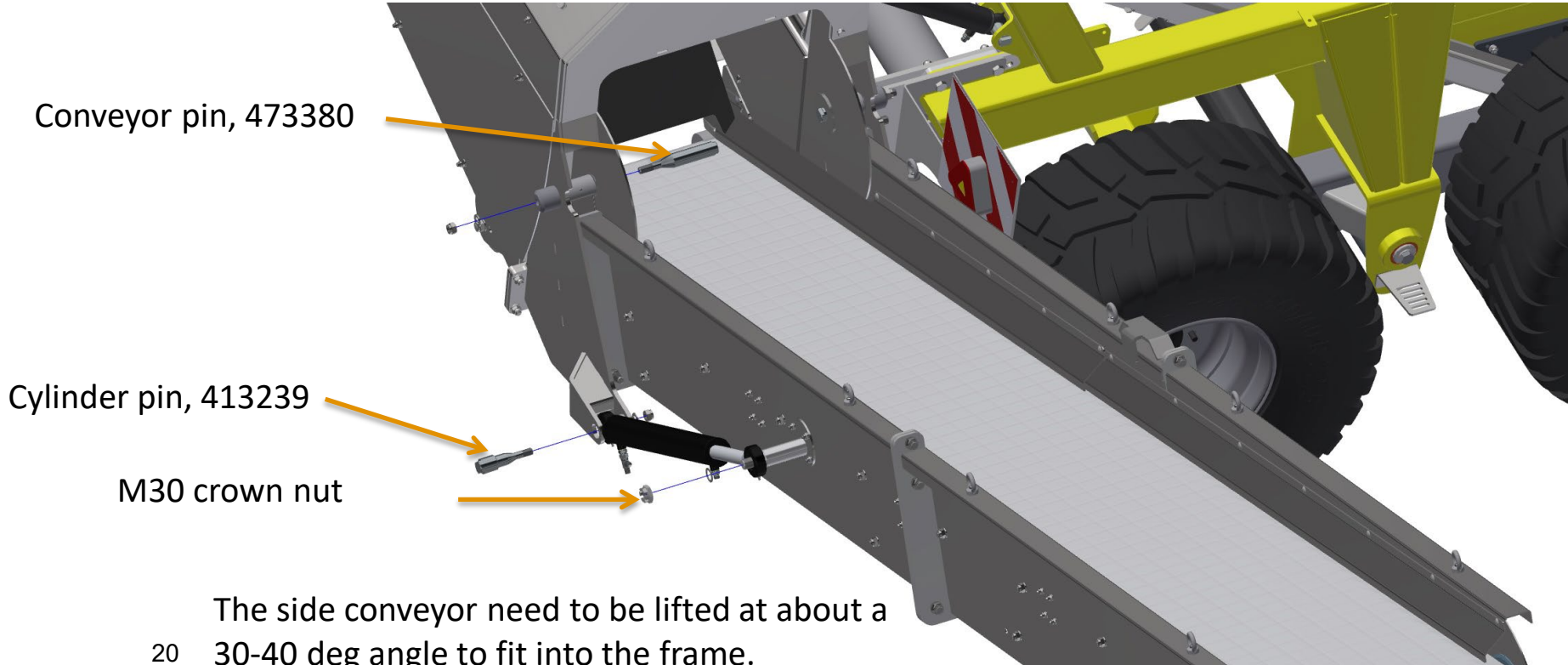
Longer rubber spacer, 473391

ASSEMBLING THE SIDE CONVEYOR

Assemble the yellow guides inside the conveyor with square head M10x25 bolt.



ASSEMBLING THE SIDE CONVEYOR



20 The side conveyor need to be lifted at about a 30-40 deg angle to fit into the frame.

SIDE CONVEYOR SETUP



The hoses that attach to the two cylinders lifting and lowering the side conveyor is located at rear right hand side.

Attach the T-divider to the hole used for lifting the bumper frame earlier according to the pictures on the following page.

Connect and secure hoses to the cylinder according to the pictures on page 22-24

SIDE CONVEYOR SETUP

T-divider



This hose is preconnected to the cylinders lifting the center elevator. The hose need to be attached securely at the rear for the bumper frame.

SIDE CONVEYOR SETUP



Connect hoses to hydraulic cylinder that lift the side conveyor. These cylinders are single acting.

SIDE CONVEYOR SETUP

Connect here



SIDE CONVEYOR SETUP

The lifting and lower of the side conveyor and the tilting of the bumper frame for transport is connected in a sequence. This function is operated from the tractor using a double acting output.

The sequence is regulated by a sequence valve located on the right hand side of the machine. This valve need to be adjusted so it always lifts the side conveyor up and down first and only when the side conveyor is lifted all the way up the bumper frame starts tilting.

From the factory this valve is set to a pressure to high meaning the bumper rear frame will not start tilting. Loosen the set screw in the valve until there is enough pressure for the rear frame to tilt into transport position.



SIDE CONVEYOR SETUP

Tilt the side conveyor into transport position very carefully. The first time tilt the frame back and forth a couple times to ensure the cylinders are filled with oil before tilting it all the way into position. If the cylinders are full of air the side conveyor can fall rapidly into place.

Also check and adjust the angle iron so it fits into the welded bracket on the side conveyor.



SIDE CONVEYOR SETUP

The distance between the roller on the bumper frame and center elevator is adjusted with a mechanical stop.

Move the washer between the sides to make the distance larger or smaller.



SIDE CONVEYOR SETUP

The hoses that attach to side conveyor drive motor is located on the left hand side of the machine.

There are three hoses +, - and the drain line.

These hoses will run on the rear of the bumper frame and the rear of the side conveyor according to the pictures on page 29-32.

This lever (A) is used to lift the center elevator to maintenance position. It is done by lifting the lever and reversing the elevator, it will then lift up so you can slide in the mechanical stops (B).

B

A



SIDE CONVEYOR SETUP



SIDE CONVEYOR SETUP



SIDE CONVEYOR SETUP



SIDE CONVEYOR SETUP



SIDE CONVEYOR SETUP

These hose are attached at the rear of the bumper frame together with hoses for the hydraulic drive.



HYDRAULIC UNIT SETUP



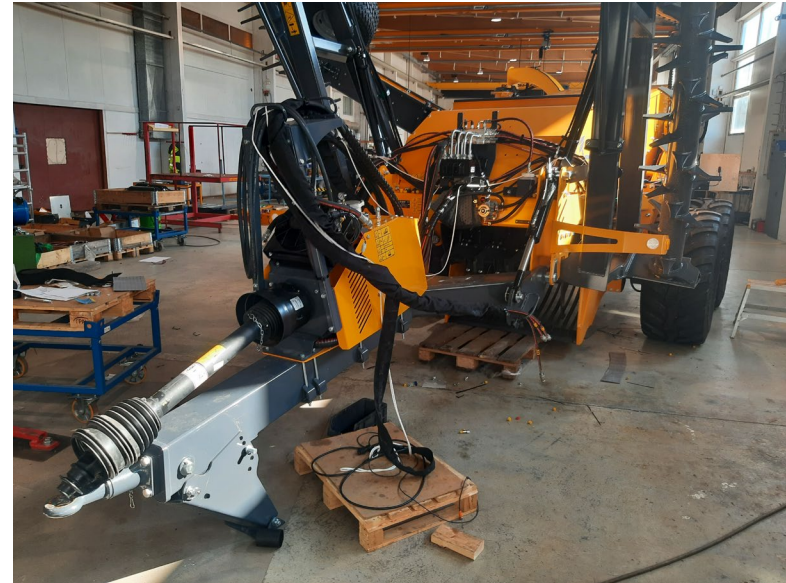
If the unit has a hydraulic unit it is attached with brackets to the drawbar, see page 4.

Two $\frac{3}{4}$ " hydraulic hoses on the hydraulic unit is to be connected to the electrical hydraulic block.

Start by removing the longer hoses currently assembled on the block. these longer hoses are for when using the machine with a tractor with a LS pump. The block also has a small $\frac{3}{16}$ " LS hydraulic hose prepared for LS drive, this hose is not used when using the hydraulic unit.

The longer hydraulic hose connects the pump to the P port on the block. The shorter hose go between the cooler and the T port on the block.

If the hydraulic unit is shipped without oil we recommend to fill the unit with 80 litre of 68 grade hydraulic oil or similar.



INLET MODULE SELECTOR

The Danfoss Pvg 32 valveblock used on the Scorpio 710 and Scorpio 550 SF comes with a selectable inlet module for both open center and closed center configuration.

When the stonepicker is delivered the machine is set in the **open center configuration** which is used with the hydraulic unit. In this configuration the selector screw is turned all the way in.

To change to **closed center configuration** that is used when using the load sensing pump on the tractor the 6mm selector has to be turned counter-clockwise (screw out) all the way which is about 6 full revolutions. When used with a LS pump the 3/16" LS hose has to be connected.

