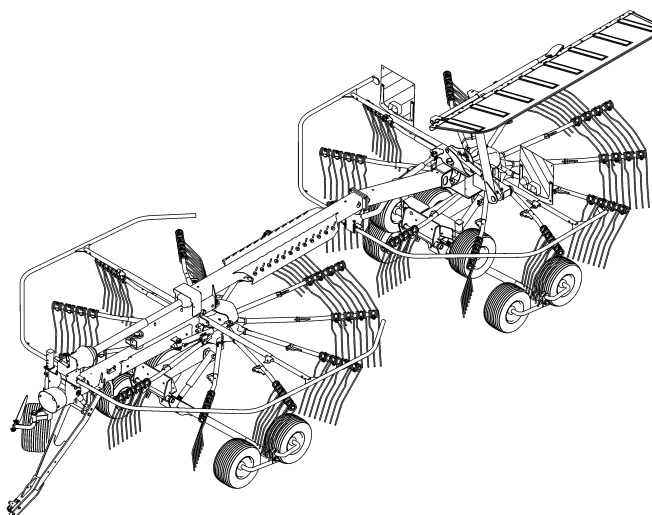




SwatMaster 7131

SwatMaster 7131 Evo

Assembly instructions

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Preliminary information

Target group of these instructions

These instructions are directed at qualified skilled technicians and those with other qualifications in the field of agricultural technology.

For your safety

Prior to assembly familiarize yourself with the content of these assembly instructions.

The employer should:

Untrained or unauthorized individuals are not permitted to assemble the machinery.

Meaning of the symbols

In order to make this manual clear and easy to read, we have used various symbols. They are explained below:

- A dot accompanies each item in a list
- > A triangle indicates operating functions which must be performed

We have also used pictograms to help you find instructions more quickly:

NOTE "Note" indicates tips and notes for the operation.



The warning triangle indicates important safety instructions. Failure to observe these safety instructions can result in:

- Serious operational faults for the machinery;
- Damage to the machinery;
- Personal injury or accidents.

For your safety

Read and pay close attention to the safety instructions in this chapter prior to assembling the machinery. Everyone involved in assembling or installing this machine has to read and pay close attention to the following assembly instructions.

Warning triangles indicate the risk of serious injuries or death. Whenever you come across these signs in the assembly instructions, please make sure that you implement all appropriate safety measures. They also indicate the risk of damage to the machinery as well as financial and legal consequences (i.e. invalidation of the warranty, or legal liability).

Faulty assembly or misuse results in:

- Danger to life and limb of the operator, third parties, and animals in the vicinity of the machine,
- Damage to the machine and other property belonging to the operator or third parties
- Negative effects on the efficient and faultless operation of the machine.

Assembly in accordance with assembly instructions

Non-compliance with the following rules amounts to gross negligence! It invalidates any liability of the manufacturer for resultant damage. Non-compliance is solely at the risk of the operator!

This machine must only be assembled by trained technicians in accordance with the current revision of the assembly instructions. Before the machine is coupled to a tractor, transported, or commissioned, the operating manual and its safety instructions have to be thoroughly read and followed.

It is the responsibility of the proprietor to ensure that all personnel involved in the assembly are provided with the relevant accident prevention regulations, as well as generally applicable health and safety and road safety regulations. All personnel involved in the assembly have to be aware of these rules and regulations and adhere to them; they also have to be instructed on the potential risks and dangers. Unauthorized alterations to the machine invalidate any liability of the manufacturer for resultant damage.

The following rules and regulations have to be observed:

- Relevant accident prevention regulations pertaining to the locality,
- Generally recognized health and safety regulations as well as road traffic legislation,
- Functional limits and safety regulations as set out in the technical operating manual,

Safety

General safety and accident prevention regulations

- Responsibilities for the various activities have to be clearly allocated and adhered to. There must not be any confusion regarding responsibilities, otherwise the safety of the assembly personnel is put at risk.
- Before you start work, familiarize yourself with all the fittings and actuation elements and their functions.
- For all work on the machine, use only appropriate tools and implements in perfect condition.
- You must only use parts (accessories, lubricants etc.) which comply with the minimum manufacturer's specifications; you must use them in accordance with regulations (including specified torques).
- A part complies with the requirements, if it is an original replacement part or if it carries the explicit endorsement by the manufacturer of the original machine.
- Wear close-fitting clothes when operating the machine! Wear sturdy footwear and regulation protective equipment!
- Chock and secure the machine carefully during assembly!
- Particular care has to be taken in dealing with energy accumulators such as springs and hydraulic or compressed air aggregates.
- Dispose of oils, grease, and filters in accordance with regulations!
- Protective equipment has to be properly fitted and swivelled into their protective position.
- Actuation elements (ropes, chains, and rod-assemblies) of remotely controlled fittings have to be installed in such a way that they cannot cause unintended movement in any transport or operating position.
- Do not leave the engine running inside enclosed buildings!
- All remote-powered and all other movable parts (e.g. hydraulics) have pinch or shear points!
- Pay close attention to the markings on reversible connections and be aware of the risk of transposition.
- Always turn off the power supply before working on the electrical system.
- When carrying out electric welding, always disconnect the generator and battery cables!

Screw tightening torques

Comply with the tightening torques that are quoted in the table or specifically in the text.

	8.8	10.9	12.9
M 6	9.9 Nm (7.3 ft.lbs)	14 Nm (10.3 ft.lbs)	17 Nm (12.5 ft.lbs)
M 8	24 Nm (17.7 ft.lbs)	34 Nm (25 ft.lbs)	41 Nm (30.3 ft.lbs)
M10	48 Nm (35.4 ft.lbs)	68 Nm (50.2 ft.lbs)	81 Nm (59.8 ft.lbs)
M 12	85 Nm (62.7 ft.lbs)	120 Nm (88.6 ft.lbs)	145 Nm (104 ft.lbs)
M 16	210 Nm (155 ft.lbs)	290 Nm (214 ft.lbs)	350 Nm (258 ft.lbs)

Direction and direction of rotation

All directions („right”, „left”, „front”, „back”) are always seen as facing the direction of travel.

The direction of rotation is defined as follows:

- Direction of rotation to the right = clockwise
- Direction of rotation to the left = anti-clockwise
- Rotation around a vertical axis, seen from top to bottom
- Rotation around a horizontal axis, at right angles to the direction of travel, seen from left to right
- The rotation of screws, bolts, and similar is always described from the working side.

Assembly from crates:

Prerequisites

Select a suitable level surface of about 10m x 10m for the assembly.
Lifting gear with lifting attachments capable of lifting at least 1500 KG.
Supports to bear machine parts securely
Spanners to tighten screws.

Open crate

- > Put the crate on level ground and open it without damaging the contents.
- > Remove loose parts (wheels, boxes), and clear the space around larger components.

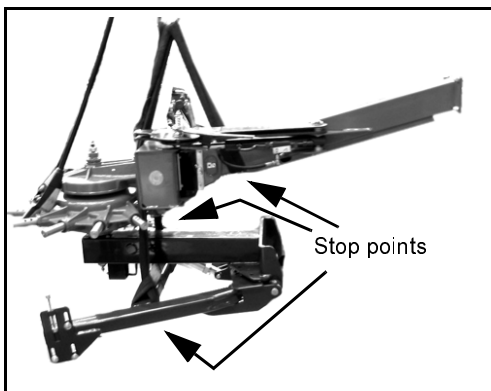


Do not connect hydraulic control units

Do not connect hydraulic lines.

Hydraulic cylinders activated during the assembly can cause damage to the machine.

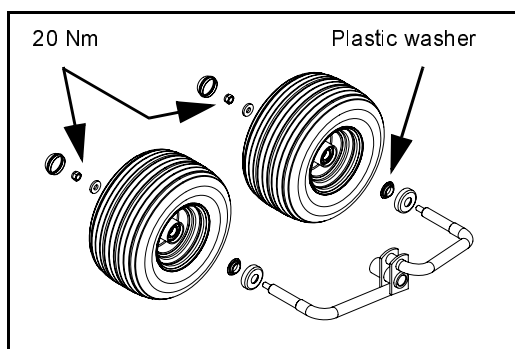
Fit rear swath



- > Remove fastenings (wires, lashing straps) and take rear swath assembly out of the crate. Stop points are indicated by arrows on the illustration.
- > Place the rear swath assembly securely on supports

Tandem axles

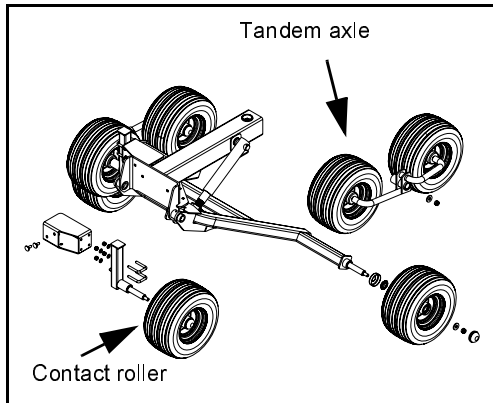
- > Mount wheels on tandem axle



Observe torques

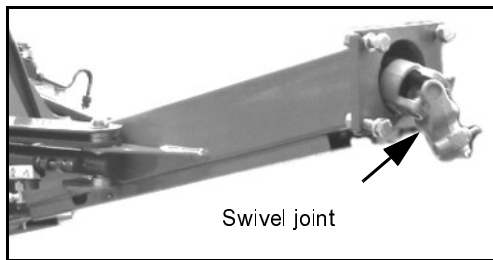
Tighten wheelnut only to 20 Nm. Higher torques damage the plastic washer

Assembly from crates:



- > Fit wheels or tandem axle (optional extra) to the chassis. The narrow track of the tandem axle has to face the direction of travel.
- > Mount contact rollers (optional extras)
- > Lift rear swath onto chassis,
- > and safeguard it against rolling forwards or backwards.
- > Place cross beam on supports

Mount cross beam

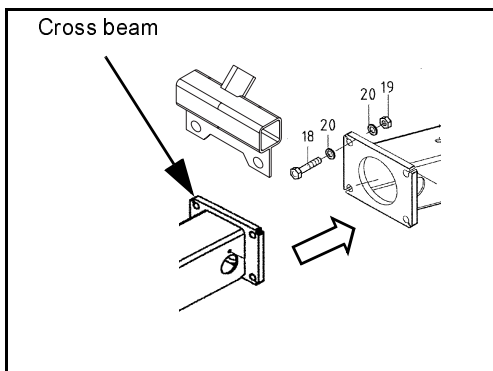


Fit the central cross beam to the rear swath as follows:

- > Push swivel joint onto stub and lock in place.



- > Use lifting gear to lift cross beam out of the crate and position it on two supports.
- > Unwind cables and hoses from the cross beam
- > Push the swivel joint onto the stub on the cross beam (this side does not lock)



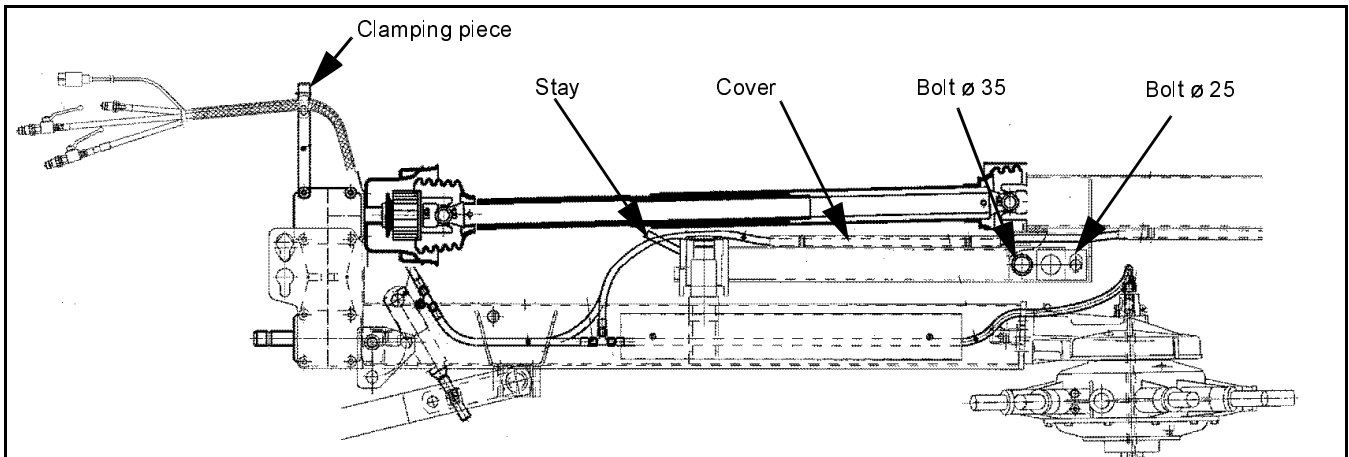
- > Use hoist to bring the cross beam up to the rear swath assembly,
 - > and fasten flange with 4 screws (M16) and nuts. See spare parts list F03 and F04
- If an additional guard cloth (optional extra) is to be fitted, its transport attachment is fitted together with the upper screws. See spare parts list G03

Assembly from crates:

Mount front rotary swaths

For linking the front swath section to the rear one, follow these steps:

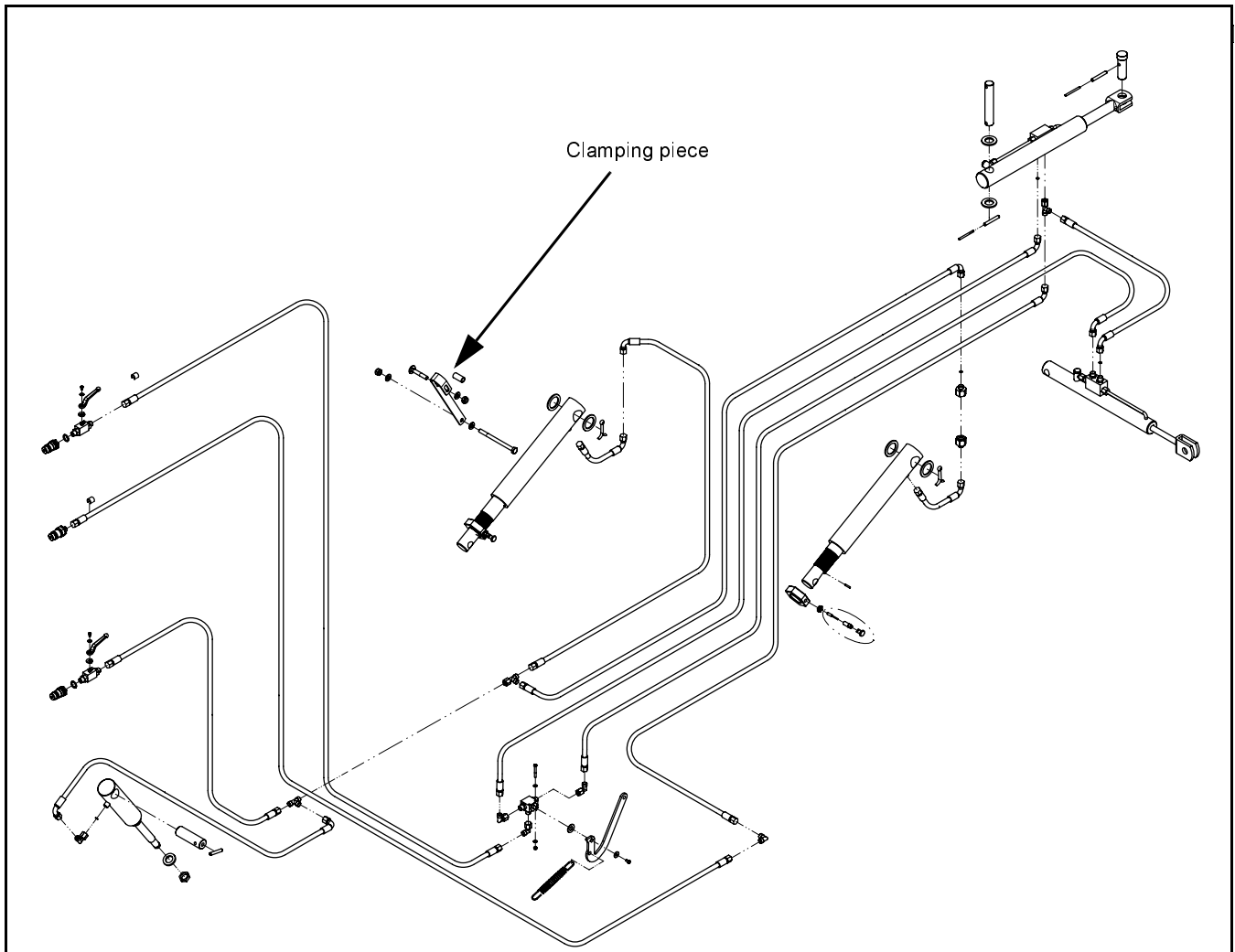
- > Remove front rotary assembly from the crate and place securely on supports.
- > Mount tandem axle (optional extra) in the same way as for the rear chassis.
- > Attach front swath with bolts (ø 35) to the cross beam and secure with clamping pin.
- > Second bolt (ø 25) and secure with washer and split pin.



- > Run hydraulic tubes and cables underneath the cover.
- > Fasten cover with screws.
- > Pass hydraulic tubes and cables through the stay bar.
- > Connect the tubes to their appropriately marked connections (see hydraulic schematics)
- > Fasten clamping piece in vertical position.

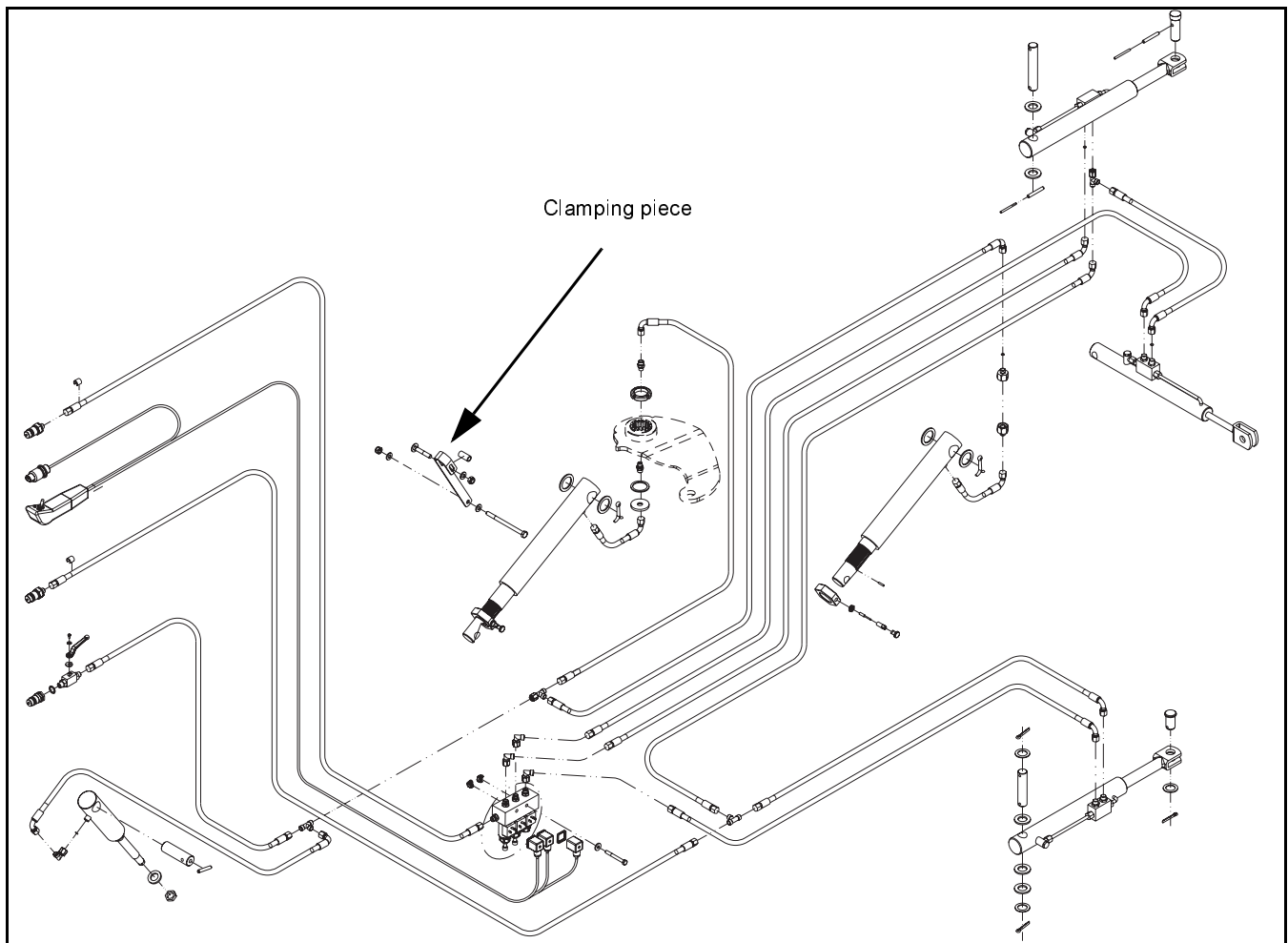
Assembly from crates:

Hydraulic circuit diagram, 3-way ball valve

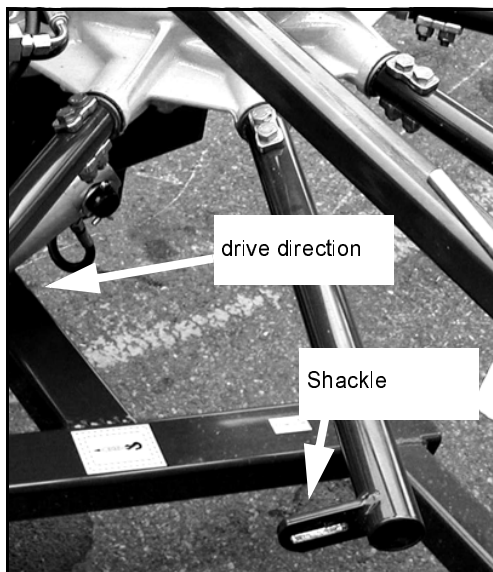


Assembly from crates:

Hydraulic circuit diagram, pilot box

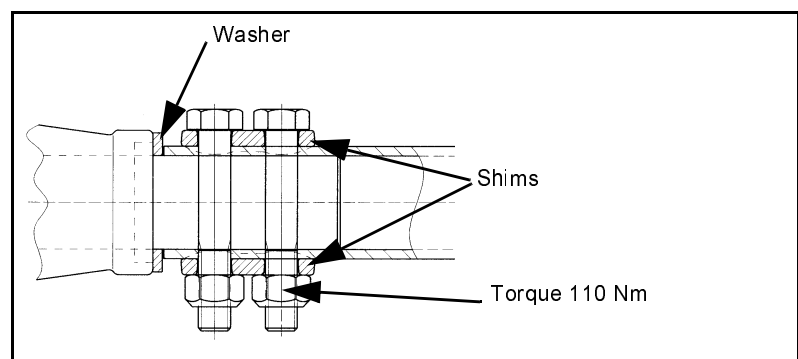


Mount tine arms



Bolt tine arms using the contents of bag „A“

- > Push the washer onto the stub shaft.
- > Fix tine arm to the stub shaft.
- > Be aware of the position of the connecting plate.
- > Fasten tine arm with two shims and setscrews.
- > Tighten setscrews to 110 Nm.

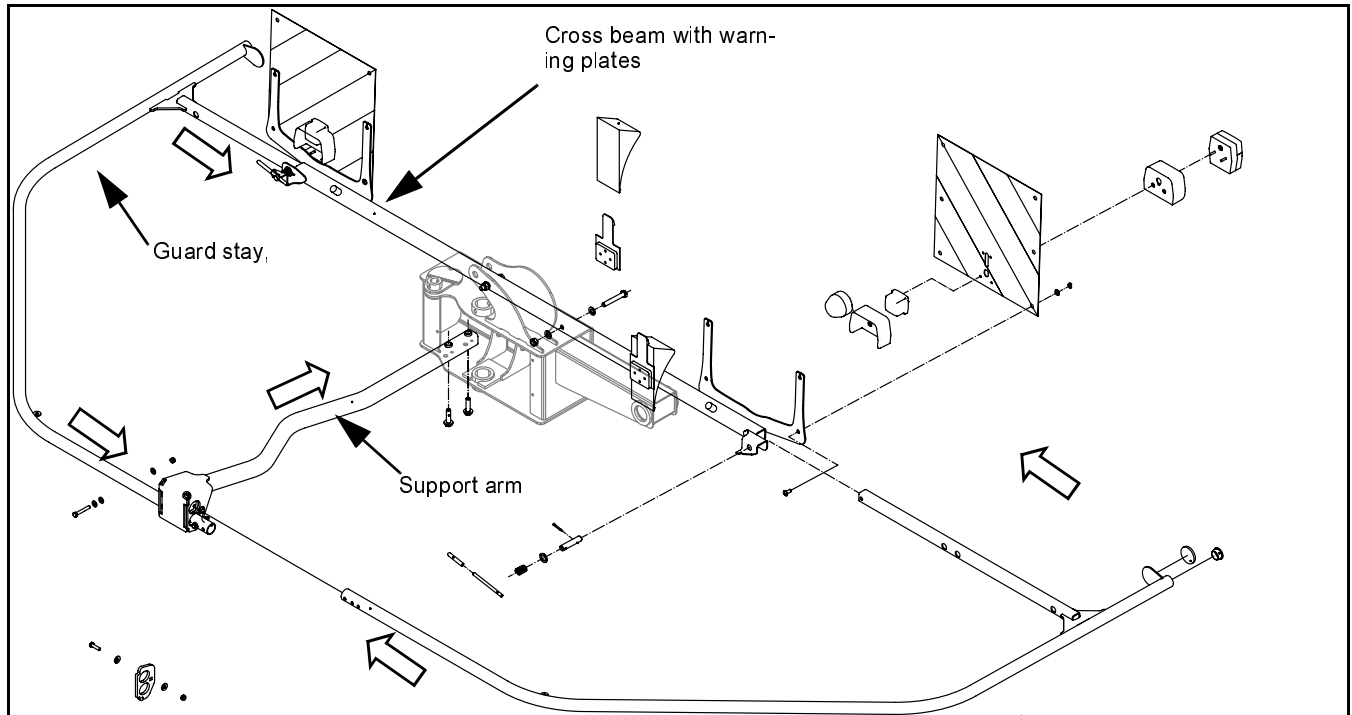


Assembly from crates:

Fitting the rear guard stay

Fit the rear guard stay using the contents of bag "D". For more detailed information consult spare parts list page 77 to 79.

- > Fasten bracket with 2 screws
- > Attach cross beam with warning plates

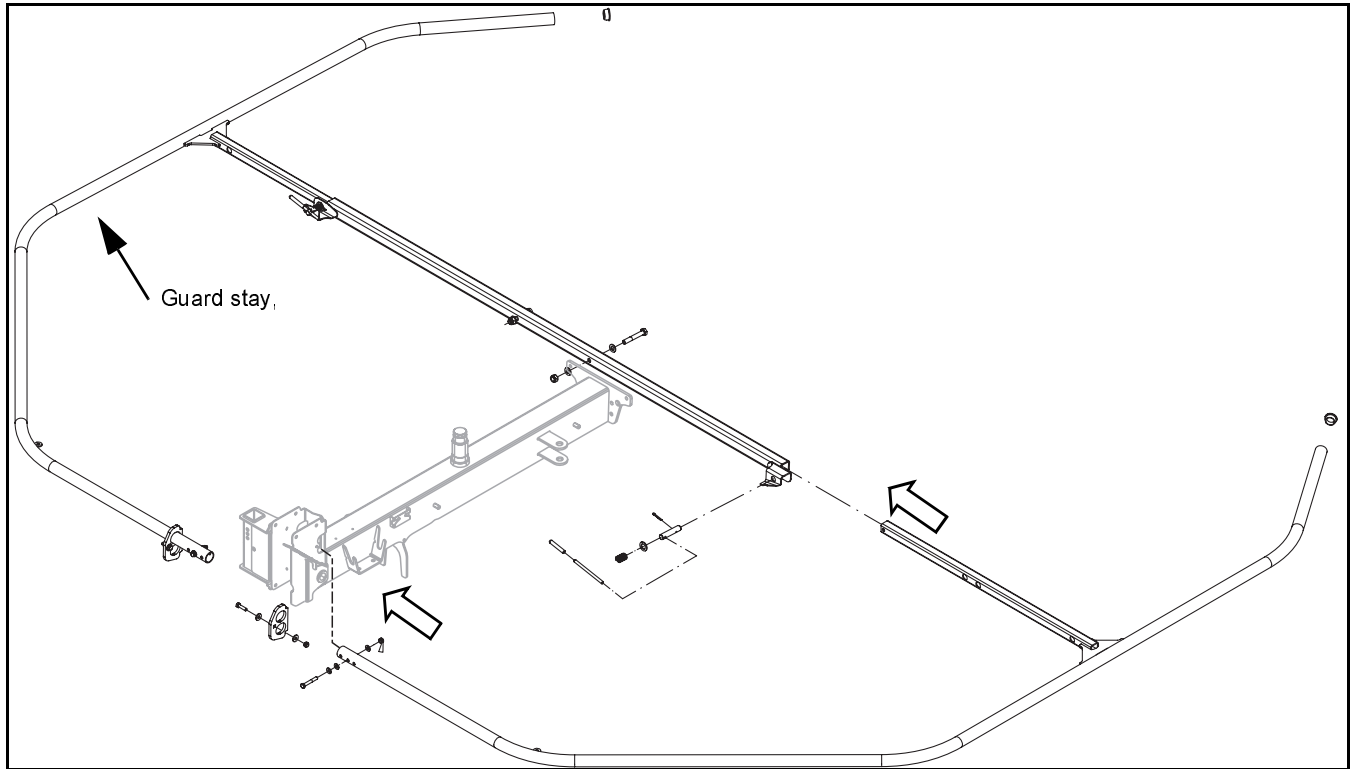


- > Insert the guard stay on the left and right and secure it at the front with a nut and bolt
- > Connect existing cables for lighting equipment. (See spare parts list)

Assembly from crates:

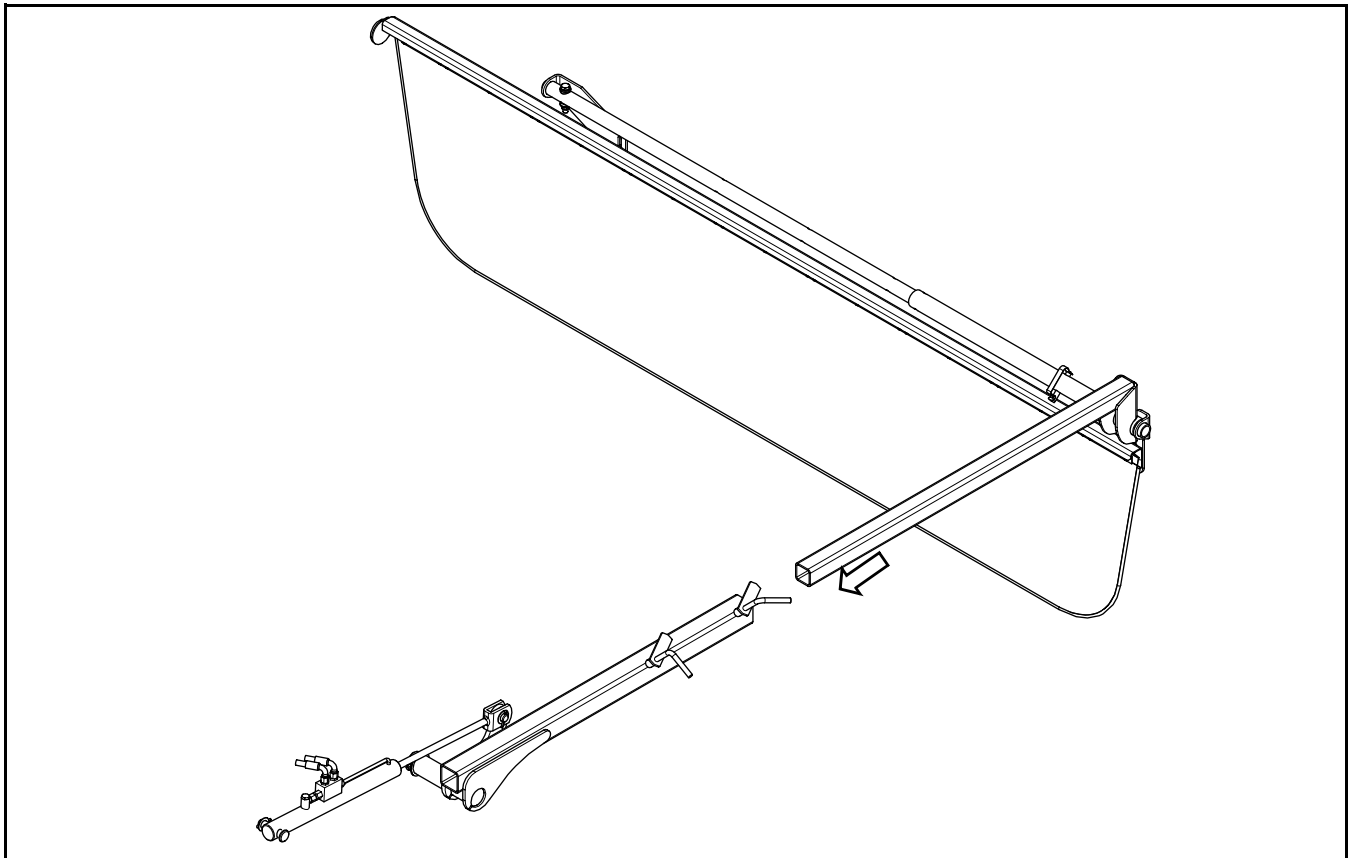
Front guard

Insert the guard on the left and right and secure it at the front with a nut and bolt



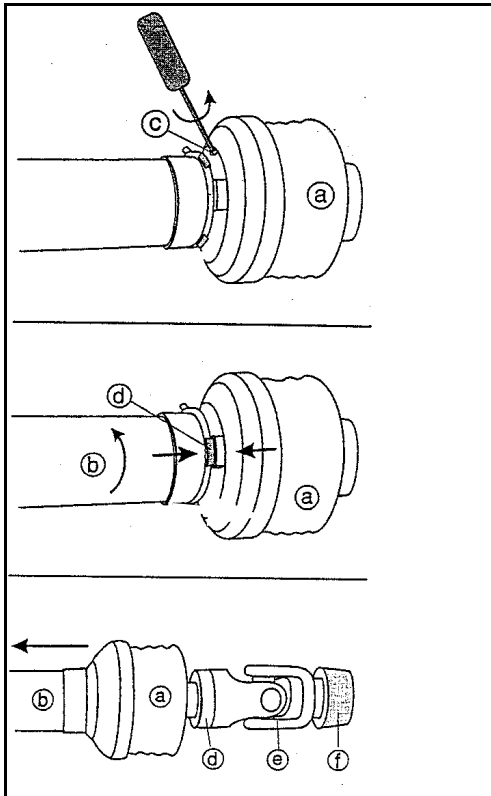
Swath cloth

Insert pre-mounted swath cloth into cross beam and secure with both capstan head screws.



Assembly from crates:

Fit PTO shaft

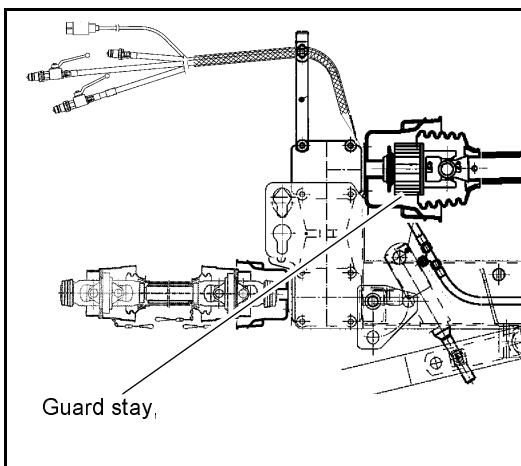


Loosen the PTO drive shaft guard to insert the prop shaft.

- > Remove lock screw (c) between the protecting tube (b) and the guard cone (a)
- > Turn guard cone (a) and tube (b), until the „noses“ of slide ring (d) are located above the recesses of the guard cone (arrows).
- > Push back guard cone and protecting tube
- > Push pivot (e) onto the stub shaft. Ensure that it is safely engaged (f).
- > Reverse the above instructions to fasten PTO drive shaft guard.

Torque limiting clutch

Mount the PTO shaft with torque limiting clutch as illustrated.



Check list

Checking of the assembled machine

Upon completion of assembly check the following:

- > Check all fastening torques (see table below).
- > Tighten all capstan head screws
- > Tighten all hydraulic connections
- > Safe run of hydraulic tubes and cables.
- > Safe connection of all cables.
- > PTO drive shaft connections engaged
- > Check lights
- > Check air pressure (1.5 bar)

Trial run

To fill the hydraulic system with oil requires about 3 litres of hydraulic oil (SAE 90 API GL4).



Keep slewing range clear

Nobody must be within the slewing range of the machine. Moving parts can cause injuries.

- > Operate all hydraulic functions of the machine ten times to the limit stops, in order to remove any air from the system.
- > Upon completion check hydraulic system for leakages