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**Synchro'X Range**

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**USER'S MANUAL 06/2006**

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**SX'PRO & SX'PRO L**

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## INTRODUCTION



**READ CAREFULLY THIS NOTICE**



For the set up and the optimal use of your tool, follow the instructions of this note in the stated order.

**THIS NOTE MUST BE CONSIDEREE LIKE FORMING INTEGRAL PART of the tool and must stay with the disc event of resale.**

The right and left hands, the rear and the front are given by looking in the direction of moving.

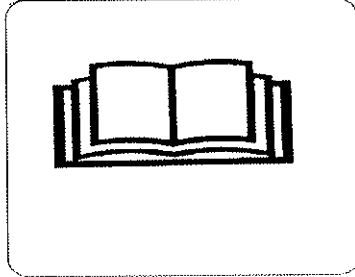
**ALL THE INFORMATIONS, PICTURES AND CHARACTERISTICS APPEARING IN THIS NOTE, ARE BASED ON THE LAST DATA AVAILABLE TO THE MOMENT OF THE PRINTING.**

**WE RESERVE OURSELVES THE RIGHT TO MAKE MODIFICATIONS CONSTANTLY, WITHOUT NOTICE. The arbitrary modifications carried out on the tool exclude any responsibility for the manufacturer, in the event of damage resulting from these modifications.**

This symbol is used in all the notice to draw your attention on the warnings concerning your safety. Take care to respect scrupulously the instructions given.

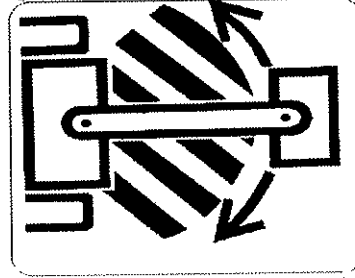


Read instructions



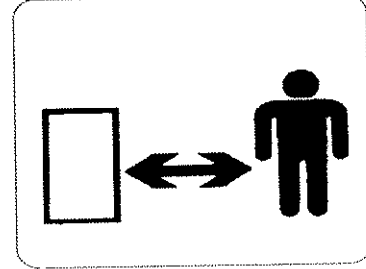
Read the instruction book and safety instructions before using machine

Safety zone



Stay away from the danger zone

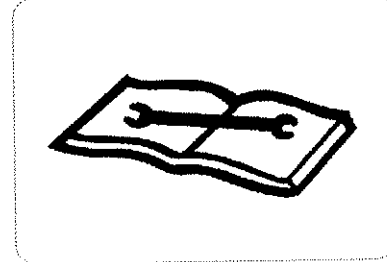
Keep your distance



Danger in the working area : keep your distance



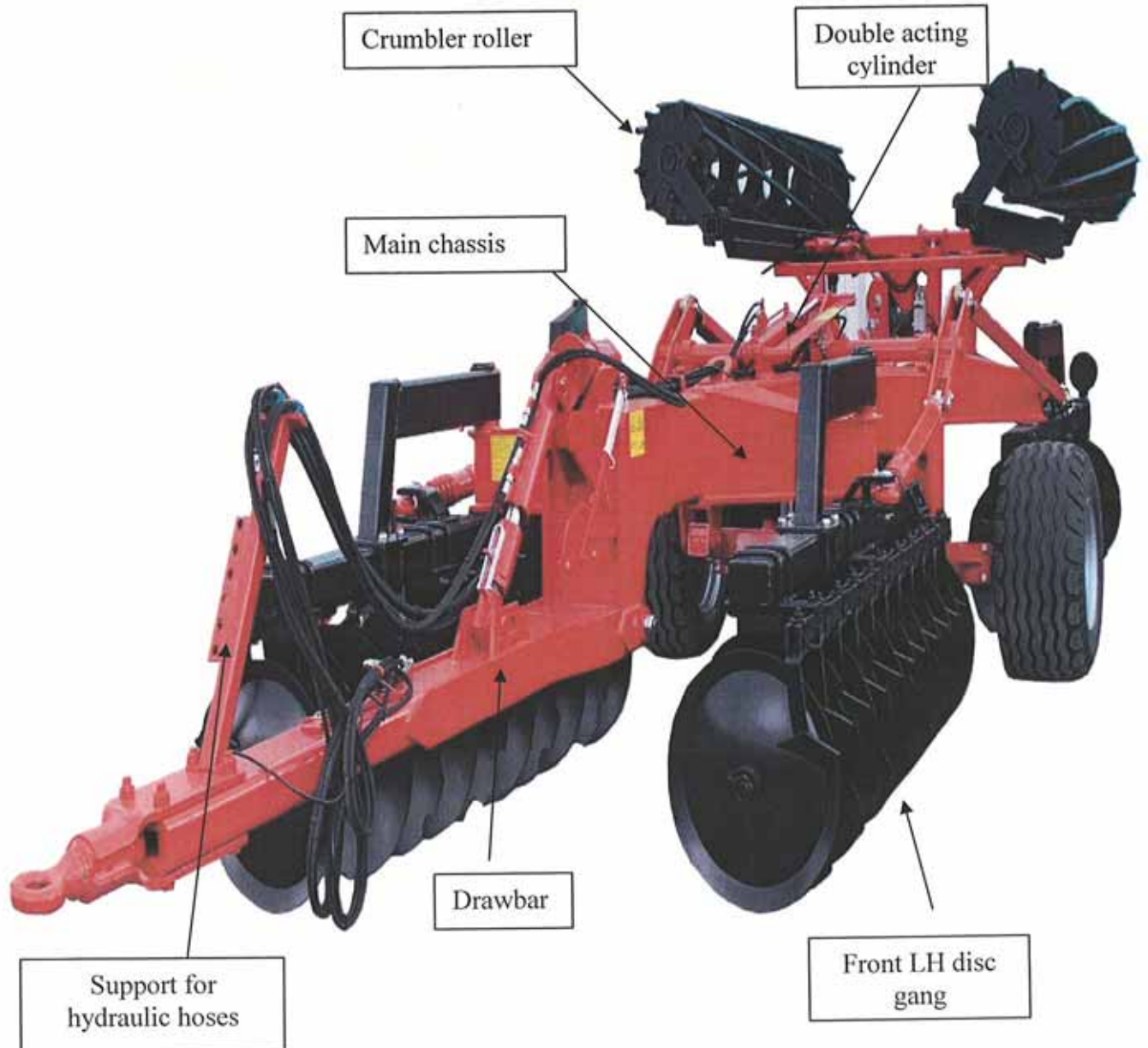
Locking before use: Install the locking system before any intervention on and under the machine



Leak and maintenance: Be careful of the leaks of oil under pressure. Refer to the instruction book for the maintenance

## IDENTIFICATION OF THE COMPONENTS

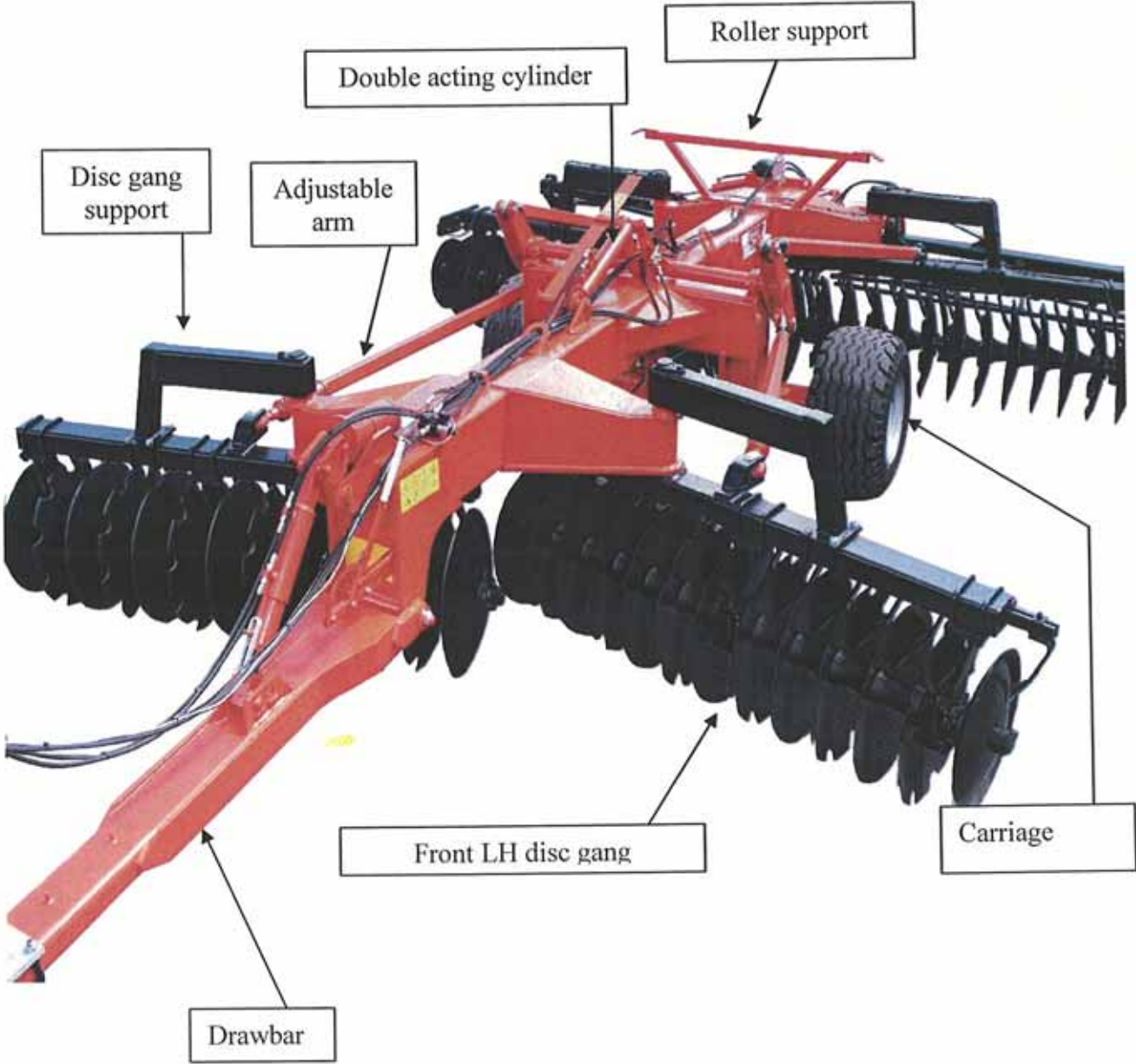
IMPLEMENT IN TRANSPORT POSITION



**SXPL**

# IDENTIFICATION OF THE COMPONENTS

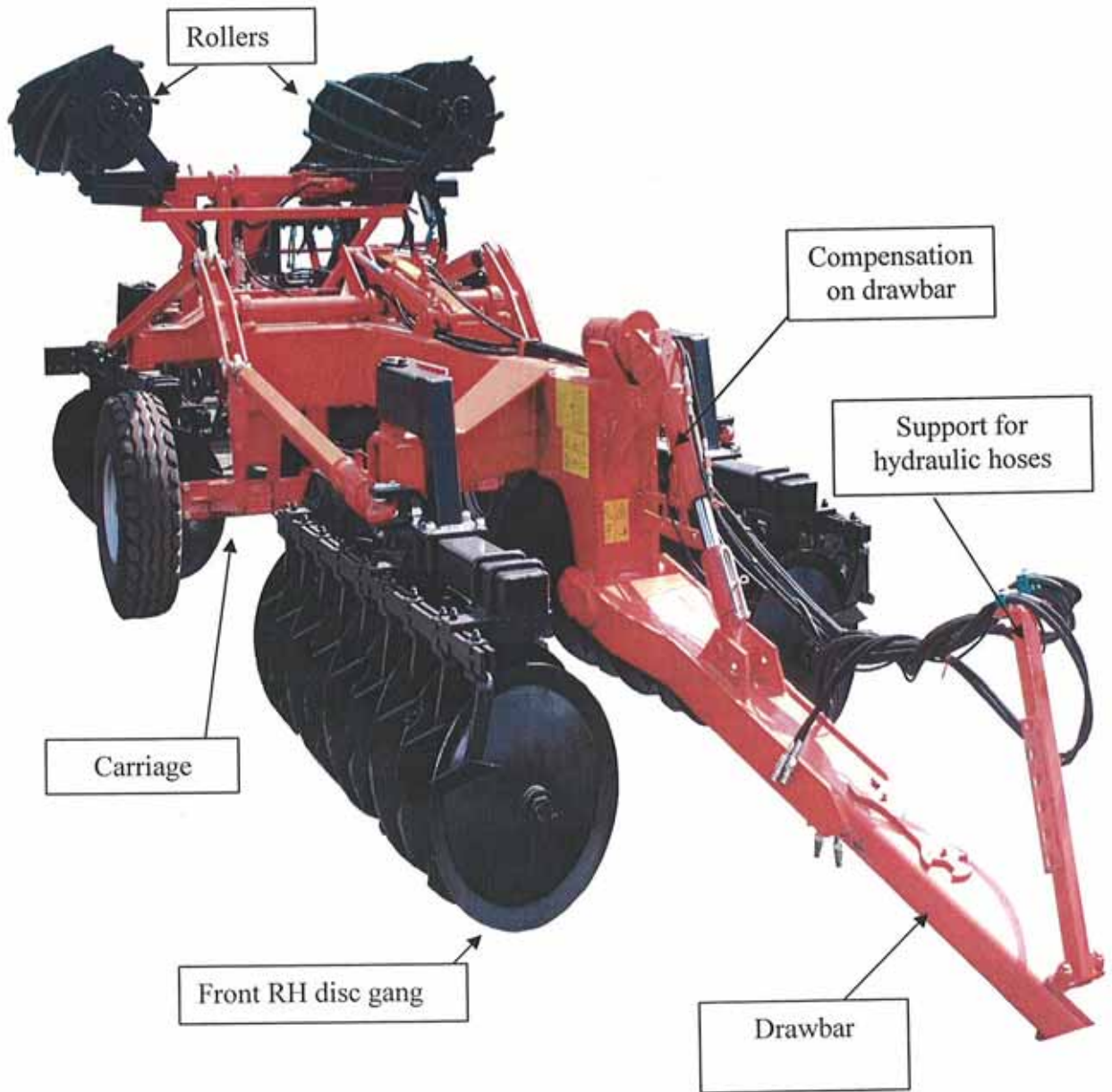
IMPLEMENT IN TRANSPORT POSITION



**SXPL**

# IDENTIFICATION OF THE COMPONENTS

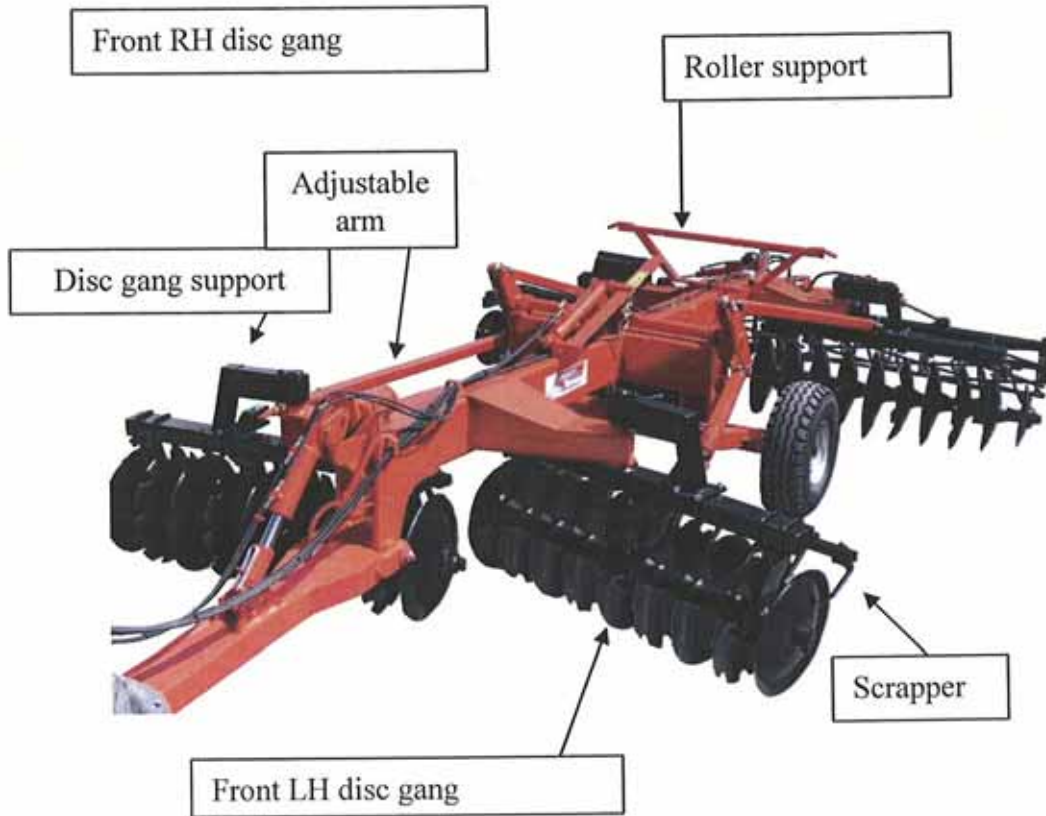
## IMPLEMENT IN TRANSPORT POSITION



**SXP**

# IDENTIFICATION OF THE COMPONENTS

IMPLEMENT IN TRANSPORT POSITION



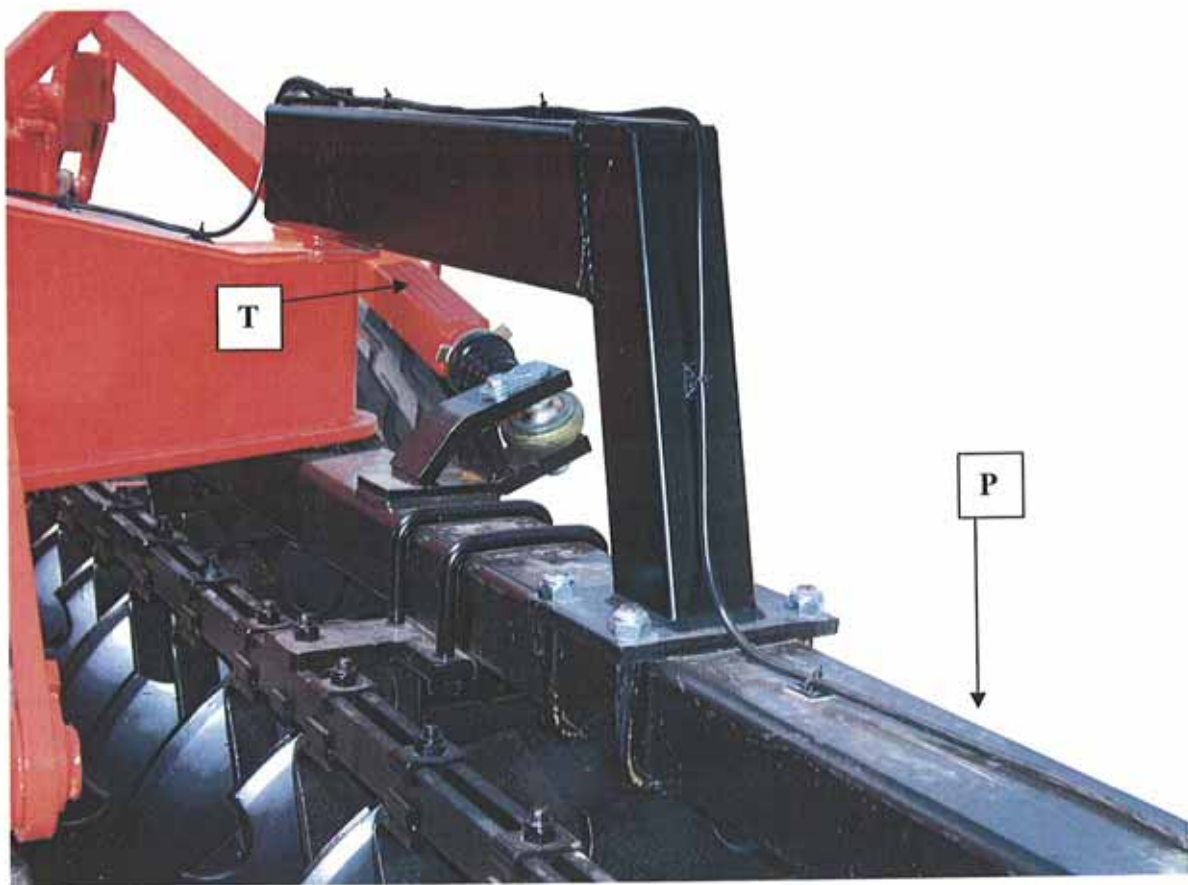
**SXP**

## PRELIMINARY ADJUSTMENTS

If the implement would be delivered dismantled or put out of order, to carry out after reassembly so necessary the following adjustments:

- To out the implement in transport position.
- To fold up the disc gangs hydraulically
- To operate the ties T in order to align the beam P with the beam of the central frame.

**Caution:** not to lengthen in an excessive way the ties because they could come in contact with the frame and become deformed



## SAFETY INSTRUCTIONS

### CAUTION

The “GREGOIRE-BESSON” implements are exclusively intended to be used for traditional agricultural work. Any use leaving this framework is made with the risks and dangers of the user and could not in no case, to blame the responsibility for the manufacturer.

#### a)ADJUSTMENTS :

Never intervene on the tool moving.

Wear adjusted clothing and the safety equipments adapted to work to carry out.

Delimit a perimeter of safety for the other people.

Do not carry out any adjustment without of to have perfectly included/understood the procedure.

Always Use tools or equipment appropriate to the work which you carry out.



#### RECOMMENDATIONS



Learn how to use correctly your tool and its orders, not to let anybody make use of it without training.

. Only the operator must be on board in the tractor and it should never leave its seat during work.

. Nobody must be on the tool at work.

## MAINTENANCE

During the operations of maintenance, always take care that the security instructions are respected.

The zone of maintenance must be clean and dry, with a good lighting.

In the event of intervention or of disassembling of a disc gang, and the implement in raised position, systematically carry out a shoring of the mean frame.

After intervention, take care that the tool is removed from all the equipment and tools having been necessary for the intervention.

**All the articulations must be lubricated regularly with a grease of quality.**

**Regularly Check the tightening of the screws and nuts.**

**Always Use original parts; they only correspond to the technical requirements of the manufacturer**

**GOOD MAINTENANCE OF YOUR TOOL EAST THE PLEDGE OF SA LONGEVITY**

## HYDRAULIC CONNEXIONS

- \* THE HYDRAULIC CONNECTION CAN BE SUBJECTED TO HIGH PRESSURES.
- \* When the tool is equipped with several hoses (push-pull), respect the direction of assembly of each one of them.
- \* Before assembling the push-pull, control that the pressure is null on the tractor side.
- \* If you detect the bad condition of one hydraulic hose, do not hesitate to change it, by respecting its dimensional specifications.
- \* In the event of search or of observation for a hydraulic leak, never put the skin in contact with the leak. Oil under pressure can cross the skin and generate serious damages; then consult quickly a doctor.
- \* In the case of an intervention on the hydraulic system, let the tool on the ground, remove the pressure from the tractor by acting on the distributor.





### **FOR YOUR SAFETY AND THAT OF THE OTHERS, RESPECT THE FOLLOWING INSTRUCTIONS:**

- \* If the tool would be equipped with a folding system, to put transport position, you have to take care that nobody is in the manoeuvring area  
The use of tools "GREGOIRE-BESSON" must always be made in agreement with the directives and rules in force, concerning the prevention of the accidents, the road safety and the occupational medicine.
  - \* Drive at a reasonable speed and in conformity with the legislation in order to always keep a control of the tractor and tool.
  - \* Never operate when a person is near the tool and of the tractor.
  - \* Observe all the rules of prudence at the time of control, especially in the turns and when the road is narrow.
  - \* Use in transport, all lighting and street signs which, if necessary must be withdrawn during work in the fields not to damage them.
  - \* Take all the precautions when you leave the tractor
  - \* Turned off engine - ignition key removed
  - \* Setting according to the parking brake on the models which can be equipped with it.
- During displacements on road, forbid any person to go up on the tool or between the tool and the tractor.  
Regularly Check the nuts and the fixing of the arms of attachment, not to hesitate to change the wearing parts

## DEVICE PROTECTION



The Synchro profiles, are equipped in standard with a parking brake, and with rear displays enables them to carry out displacements on road by respecting the highway code.

### a) PARKING BREAK

It is equipped with a handle connected stalemate the intermediary of a cable steel to the axle carrying the tool. During displacements on road, the nylon thread, positioned at the end of the handle, will be fixed at the back of the tractor. It will allow in the event of uncoupling of the tractor and the tool to immobilize this one quickly.

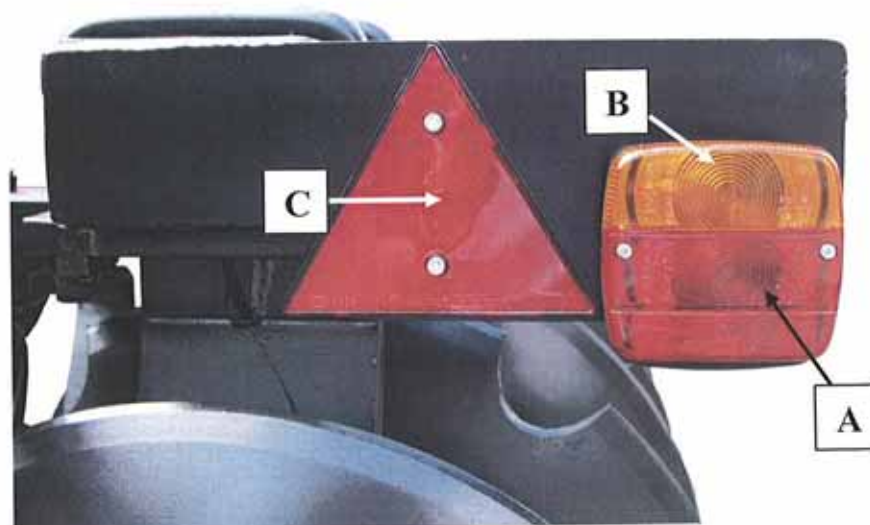


## ROAD LIGHT KIT

The connection with the tractor is carried out by connecting the electrical wire with 7 poles 12 volts.

### Functions:

- stop, night light (A)
- flashing lights (B)
- reflective triangle (C)



## ATTACHMENT OF THE MACHINE TO THE TRACTOR

If the number of distributors available on the tractor would be insufficient, the implement may be an extra spool valve block. The power supply of this spool valve is carried out via a plug with card. If the tractor is equipped with a power supply AC (after ignition key) the lighting of the night lights is not necessary, in the contrary case to light them.

- To clean of the hydraulic push-pull before the connection to the tractor.
- To move back the tractor near the piton or of the cover of fixing. - To connect the hydraulic hoses of the lifting of the tool
- To modify if necessary the working angle. The increase of the drawbar is carried out via the cylinder positioned between the frame and the drawbar. In case of there is not enough room to make the good adjustment, you can change the position of the cylinder by moving the pin in the position A or B. (See page 18)
- To hitch the tool with the tractor, you have to ensure that the drawbar angle is slightly rising (fig.1).
  - To put a the pin which locks the ring to the tractor hook.
  - To raise the tool in transport position.
  - When the tool is in transport, to regulate the cursor of obstinate hydraulic jack while operating the handle P, to regulate the length of the rod, which locks the jack in the event of rupture of the hydraulic hose in transport position.

Fig 1

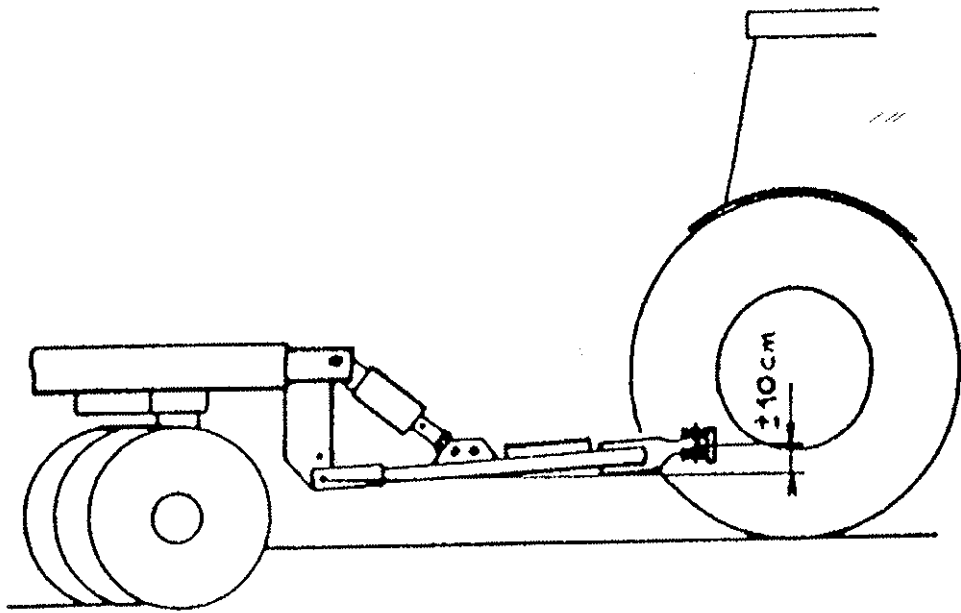
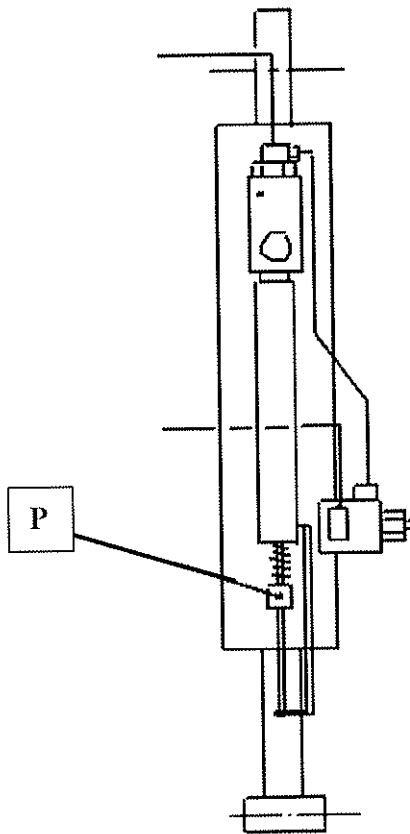


Fig 2



## ADJUSTMENTS OF THE REAR ROLLER



**IMPORTANT**



**Before the unfolding of the roller, make sure that nobody is in the operating area of the roller.**

**Models SXP and SXPL can be equipped with a suitable roller on the frame of the tool.**

**The roller passes from the working position to transport while acting the hydraulic distributor from the tractor cab.**

**The hydraulic circuit of the roller is equipped with a thrust cuts circuit, which authorizes the unfolding of the roller only when the disc gangs are in maximum opening.**

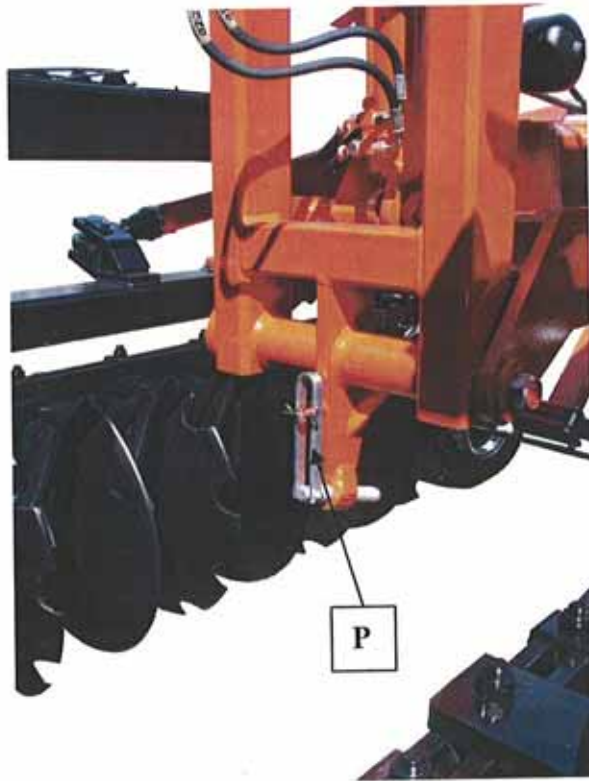
**The hydraulic system of the roller is connected to an accumulator with nitrogen. At work, the roller can occasionally absorb obstacle and help to protect the implement.**

The depth adjustment of the roller is carried out while operating the adjustable screw located under the roller.

To carry out the operation:

- to take off the adjustable screw of its support
- to remove the pin which maintains the handle
- to find the screw via the handle P to increase the depth of work of the roller compared to the discs.
- to turn the handle in the direction of the needles of a watch.
- To decrease turn on the opposite way

## ADJUSTMENTS OF THE REAR ROLLER

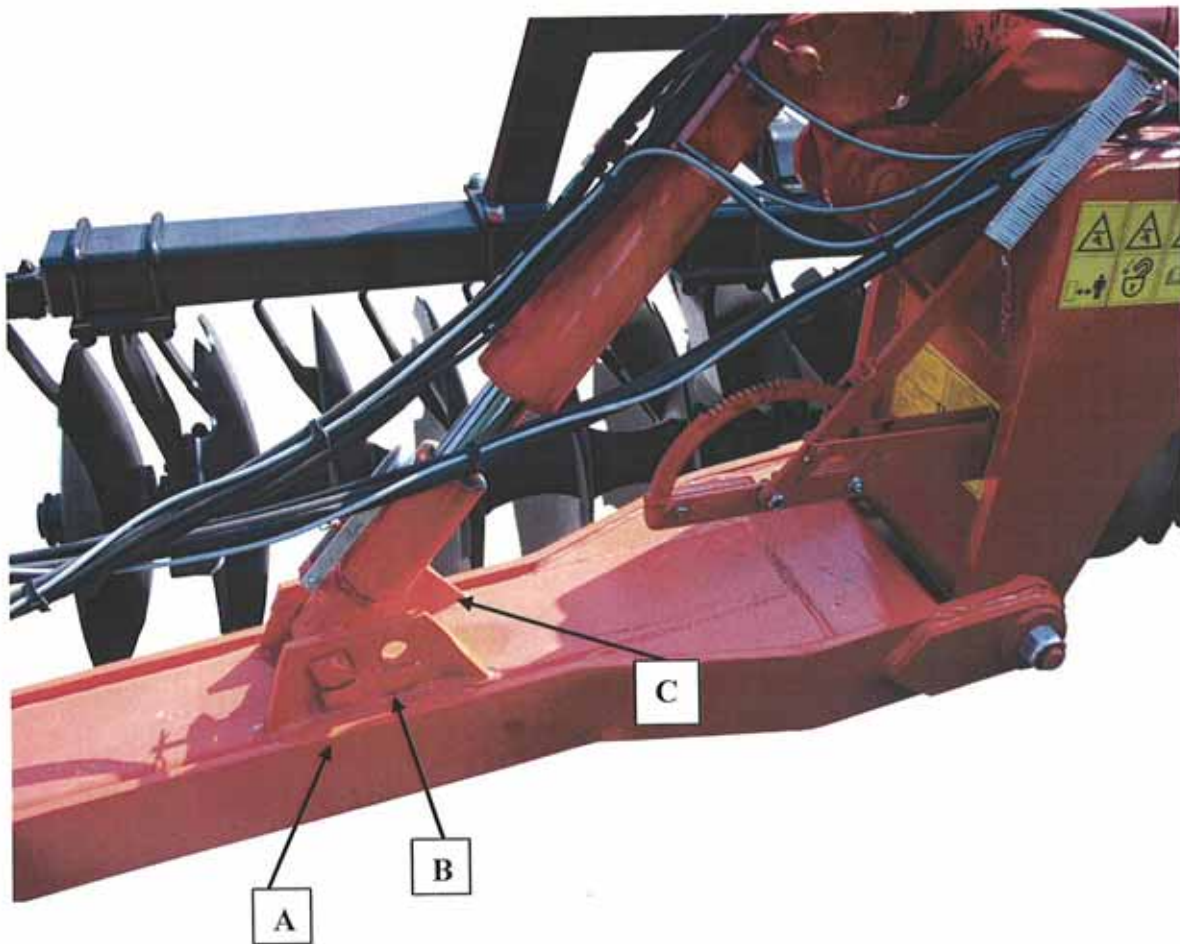


**Never adjust the working depth of the roller while operating the handle P when a person is inside the tractor.**

## ADJUSTMENT OF THE BALANCE

To carry out a correct work, the tool must be perfectly horizontal compared to the ground. The working depth of the discs gangs (front and rear) must be rigorously identical.

The adjustment of the stop D located on the cylinder of the drawbar makes it possible to maintain the front of the tool parallel to worked surface.

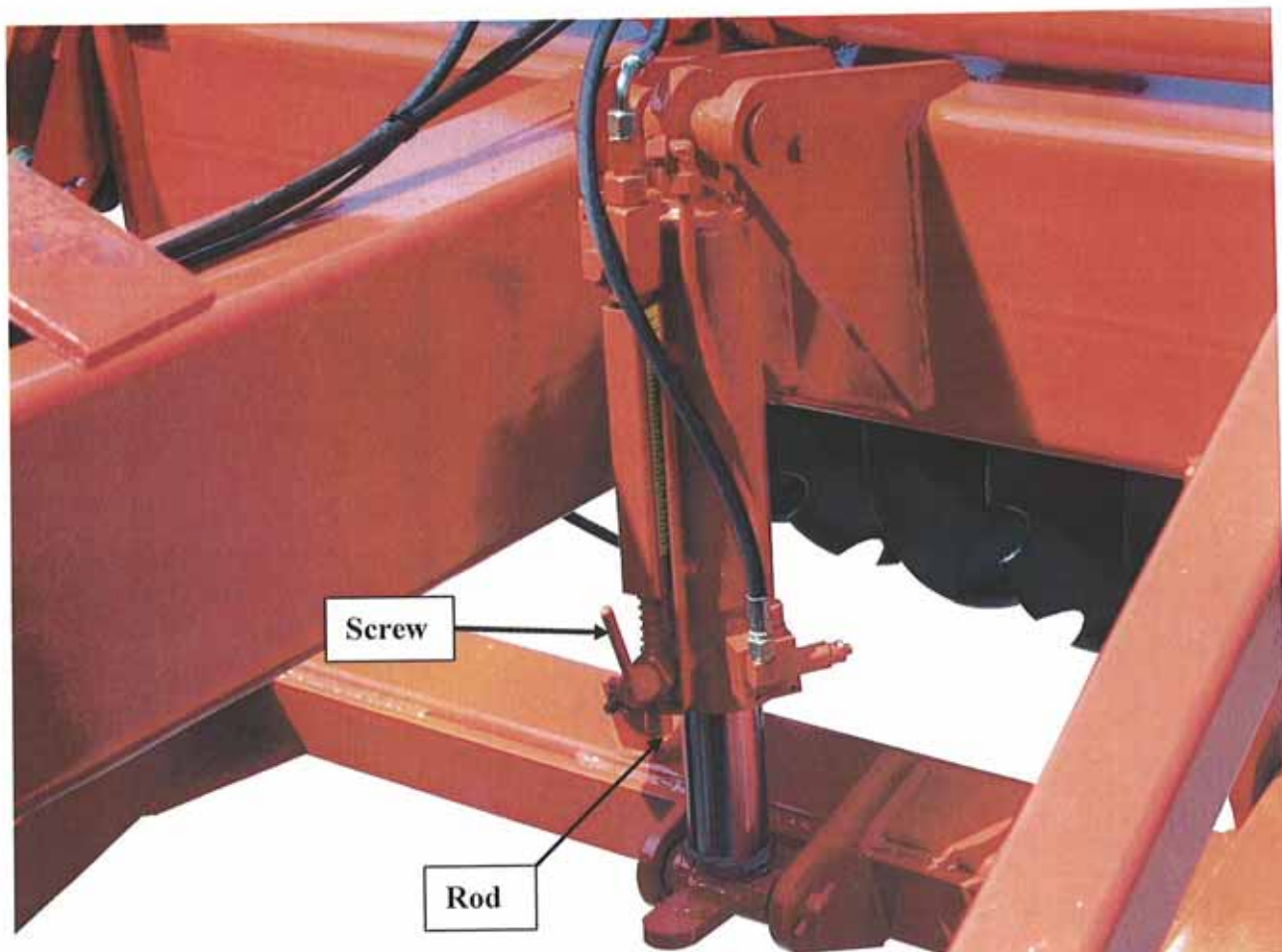


Stop D



## ADJUSTMENTS OF THE WORKING DEPTH

- ◆ To put the tool in position, separated discs from the ground
- ◆ To operate the hydraulic cylinder to lift the tool: to loosen the screw while making swivel the handle.
- ◆ To slide the stem in order to modify the length of the rod in opening position which limits the working depth.
- ◆ In complement: the adjustment of stop D (page 18) located on the rod of the cylinder makes it possible to regulate the working depth of the discs, identically between the front and the rear disc gangs.



## ADJUSTMENTS OF THE WORKING ANGLE OF THE DISC GANGS

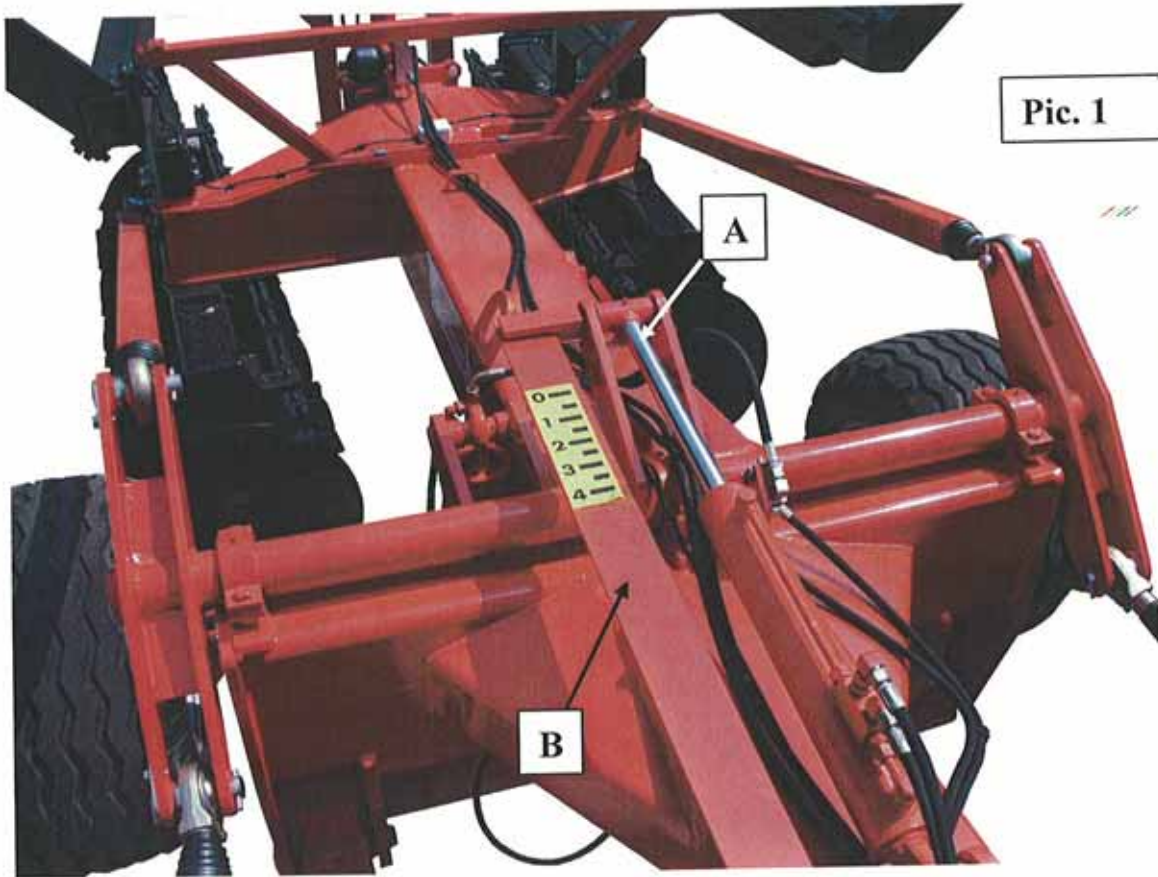
Range SXP and SXPL are equipped with a hydraulic system of folding/unfolding.

This adjustment is carried out from the cab of the tractor, while acting on the distributor which supplies the cylinder A of retraction. (Pic. 1).

A cursor graduated B makes it possible to respect an adjustment of working angle appropriate to the nature of the worked ground. The optimum position of the working angle will be optimal when the beams which support the disc gangs are parallel to the central frame.

**Important (not to lengthen in an excessive way the turnbuckle because those could become deformed while coming to be pressed on the frame).**

**A right compromise between the opening of the angles and the working depth will have to be respected (see adjustment of depth)**



Pic. 1



Pic. 2

## TRANSPORT POSITION

SXP and SXPL range are using a hydraulic folding/unfolding cylinder. This cylinder (adjustable from the tractor cab) is linked to connecting rods, which will put in movements the 4 disc gangs simultaneously.

When the tool is in transport position, the disc gangs are positioned in the prolongation of the frame. The transport width of the tool remains lower than 3 meters.

**NEVERTHELESS, CERTAIN SAFETY REQUIREMENTS ARE ESSENTIAL.**

**IMPORTANT: BEFORE CARRYING OUT THE OPERATION OF FOLDING OR UNFOLDING THE IMPLEMENT, MAKE SURE THAT NOBODY IS WORKING IN THE ZONE OF SWIVELLING OF THE DISC GANGS OR THE ROLLER.**

## EASY ADJUSTMENTS

Problems	Origin of the problem	Solutions
Not enough working depth.	Short working angle. Depth wheels touch the ground.	Open more the disc gangs Lift the wheels.
Working depth too deep.	Wide working angle. Depth wheels too high.	Reduce the angling. Descend the wheels
The implement is off-set axis of traction of the tractor	Bad symmetry of the adjustment of opening of angle	To balance the opening of the angles.
Stocking between the discs	Scrappers badly adjusted. Unfavourable working conditions	Adjust the scrappers Reduce the angling.

## MAINTENANCE

**In the event of intervention on disc gangs:** Take care to respect the stacking of the spacers or  $\frac{1}{2}$  spacers (left concave in the hollow the disc - convex part to the back of the disc).

**During the tightening of the nut (shaft end),** replace the washer of the nut if necessary, to lubricate the nut and the faces of contact of the lock washer. To tighten the nut at the end of the shaft, the tighten force is approximately 100 kilos/M.

**The bearings of the disc gangs according to the importance of use,** will be lubricated each day. (not to lubricate in an intensive way, some blows of pumps are enough).

# Hydraulic fittings for carriage and drawbar

