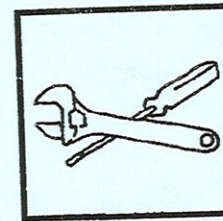


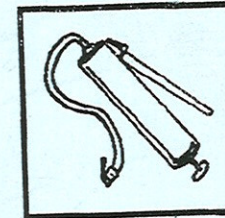
**COMBINED IMPLEMENT  
« X-SHAPED DISCORDON 3.20M »**

**INSTRUCTIONS FOR USE**

**ADJUSTMENT**



**MAINTENANCE**

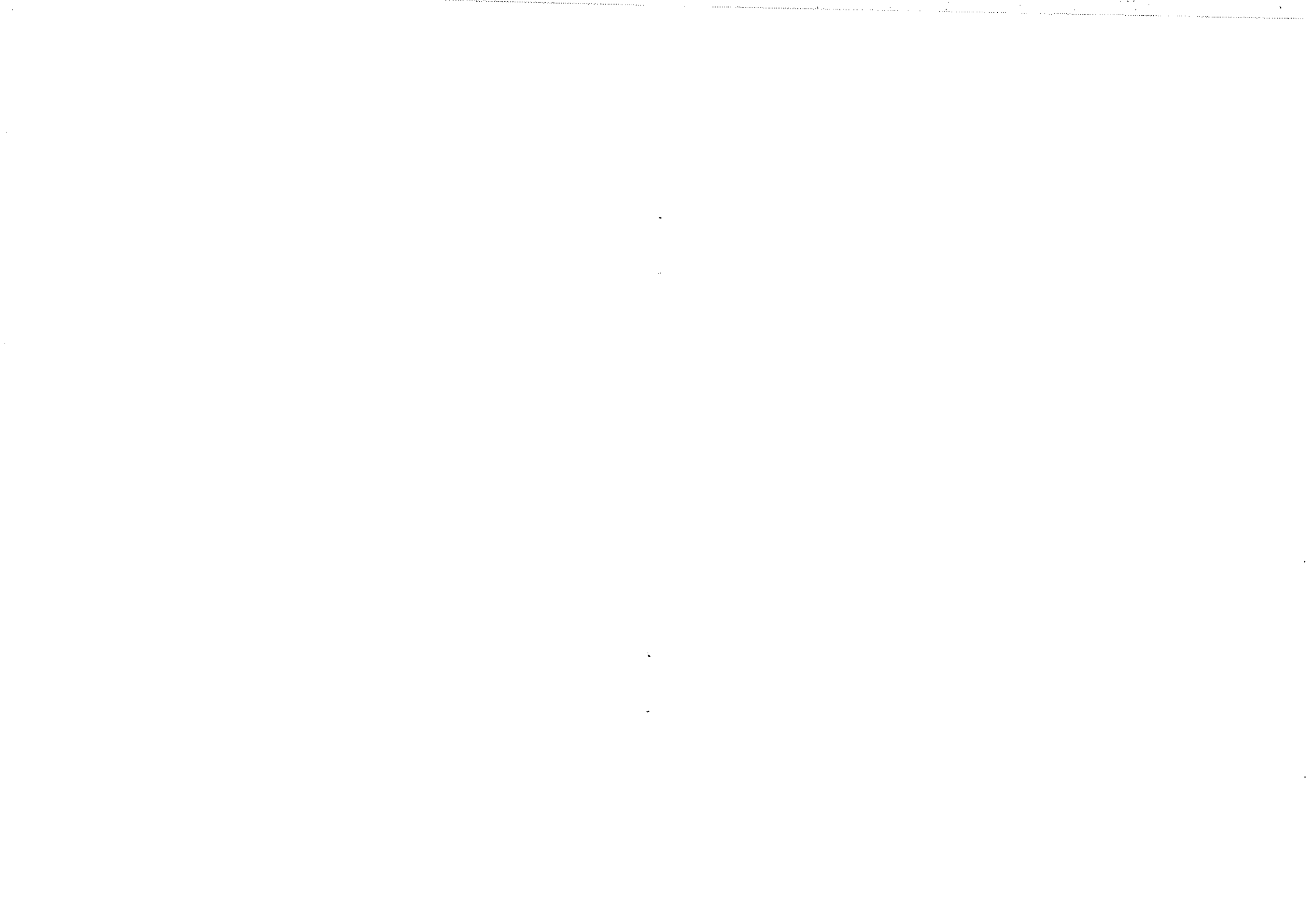


**RANGE « DXN2 »**



**49230 MONTIGNÉ SUR MOINE - FRANCE**  
**TEL. 33 02 41 64 72 67 - TÉLEX 721 241 F - FAX 33 02 41 64 67 73**  
**GREGOIRE BESSON UK -**  
**Bourne Road, CARLBY - Stamford, LINCS PE9 4NG**  
**TEL : 01 778 590 223 - FAX 01 778 590 645**





## MAINTENANCE

General joints of the different machines need a regular maintenance.

☞ Grease the general moving device every 14 hours.

☞ The bearings of the disc gangs will be greased every day, according to the use frequency. (Do not grease in an intensive way ; a few grease gun pumps are sufficient).

☞ Use a grease recommended for ball bearings. When the soil is abrasive or sandy, greasings can be carried out more frequent.

☞ Check the pressure and the thightening of the wheels which equip the wheel carriage..

☞ In case of dismantling of a complete disc gang with carrying tube, stead it correctly before taking it apart from the chassis.

☞ Before loosening the disc gang, remove the breaking nut. Note the assembling order.

☞ When you reassemble discs, bearings, spacers and ½ spacers, check that the support sides on the discs are correct.

☞ Grease the worm and the inner side of the nut. Tighten the nut at the end of the shaft with a power of about 150 kg/m.

## INDEX

	Pages
◆ INTRODUCTION	1 – 2
◆ GENERAL SAFETY INSTRUCTIONS	
CAREFULLY READ THESE INSTRUCTIONS BEFORE USE :	
▪ a/ adjustment	3
▪ b/ maintenance	4
▪ c/ hydraulic connection	5
▪ d/ road transport	6
◆ IDENTIFICATION OF DISCORDON DXN	7
◆ DESCRIPTION OF THE DISCORDON DXN	8
◆ ATTACHMENT TO THE TRACTOR	9-10
◆ GANG ANGLING ADJUSTMENT	11
◆ TINES DEPTH ADJUSTMENT ( HYDRAULIC)	12-13
◆ PRESSURE ADJUSTMENT OF HYDRAULIC SAFETY DEVICES	14
◆ ATTACHMENT OF REAR ROLLER	15-16
◆ PRACTICAL ADVICE FOR ADJUSTMENT	17
◆ HYDRAULIC EQUIPMENT(SPOOL - VALVES)	18
◆ MAINTENANCE	19

## INTRODUCTION

### CAREFULLY READ THESE INSTRUCTIONS

For the start and optimal use of your disc harrow, respect the following instructions.

These instructions must be considered an integral part of the disc harrow and handed over in case of reselling.

The left or right side of the disc harrow is determined by looking from the rear of the disc harrow towards the headstock.

All the information, drawings and specifications indicated in these instructions are the newest at the time of publication.

We reserve the right to bring modifications at any time without previous notice.

Arbitrary modifications made on the disc harrow exclude the manufacturer's responsibility if any damage should result from these modifications.



**THIS SIGN IS USED THROUGHOUT THE LEAFLET TO CALL YOUR ATTENTION TO THE INSTRUCTIONS REGARDING YOUR SAFETY. RESPECT THEM AT ALL TIMES.**

## HYDRAULIC EQUIPMENT DISCORDON DXN 3M20

HYDRAULIC FUNCTION	OPTION	SPOOL VALVES	FUNCTION SELECTOR
- Raising of discordon		1 double acting	
- Non-Stop protection on tines	x	1 double acting	
- Hydr. tines depth adjustment	x	1 double acting	1 selector (8 ways)
- Adjustment of rear lifting	x	1 double acting	1 selector (6 ways) 1 selector (8 ways)
- Hydraulic folding of rear roller	x	1 double acting	1 selector (6 ways) 1 selector (8 ways)

This board indicates the number of spool-valves which are necessary for the hydraulic supply of the combined implement DXN according to its equipment.

The hydraulic function selector (6 ways - 2 inlet ways & 4 outlet ways)(8 ways - 2 inlet ways & 6 outlet ways) makes it possible to palliate the insufficient tractor spool-valves.

## PRACTICAL ADVICE FOR ADJUSTMENT

To obtain a regular work, stabilize the frame supporting discs and tines in a horizontal position compared to the ground.

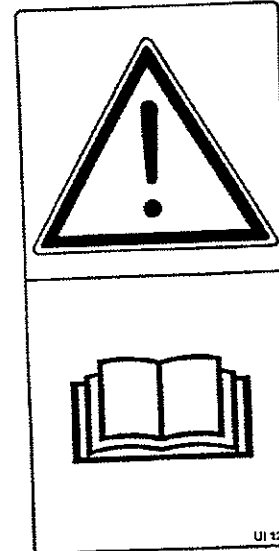
Adjust the working depth by means of the ring ( C ) placed on ram stick of drawbar cylinder (as per Page 9).

The depth adjustment of rear roller makes it possible to control the working depth of discardon.

The angle opening of disc gangs will be adjusted according to soil nature and wished working depth (The angle is more open in dry soil conditions).

It is necessary to observe a perfect work uniformity executed by the discs and tines before the pass across the field with the rear roller.

READ THE INSTRUCTIONS BOOKLET



Read the instructions booklet and the safety instructions before use. Respect these instructions when using the disc harrow.

THE SAFETY ZONE



Danger in the working zone : stay in the background



**LOCKING BEFORE ACTION**  
Install the locking system before any intervention on the machine.



**LEAK AND MAINTENANCE**  
Be careful of the leaks of fluids under pressure. Refer to the instructions of this booklet for the maintenance

## GENERAL SAFETY INSTRUCTIONS

### **ATTENTION !**

Disc harrows "GREGOIRE-BESSON" are manufactured to be used only for usual agricultural work.

The operator is responsible for every use out of this context.

### ADJUSTMENT

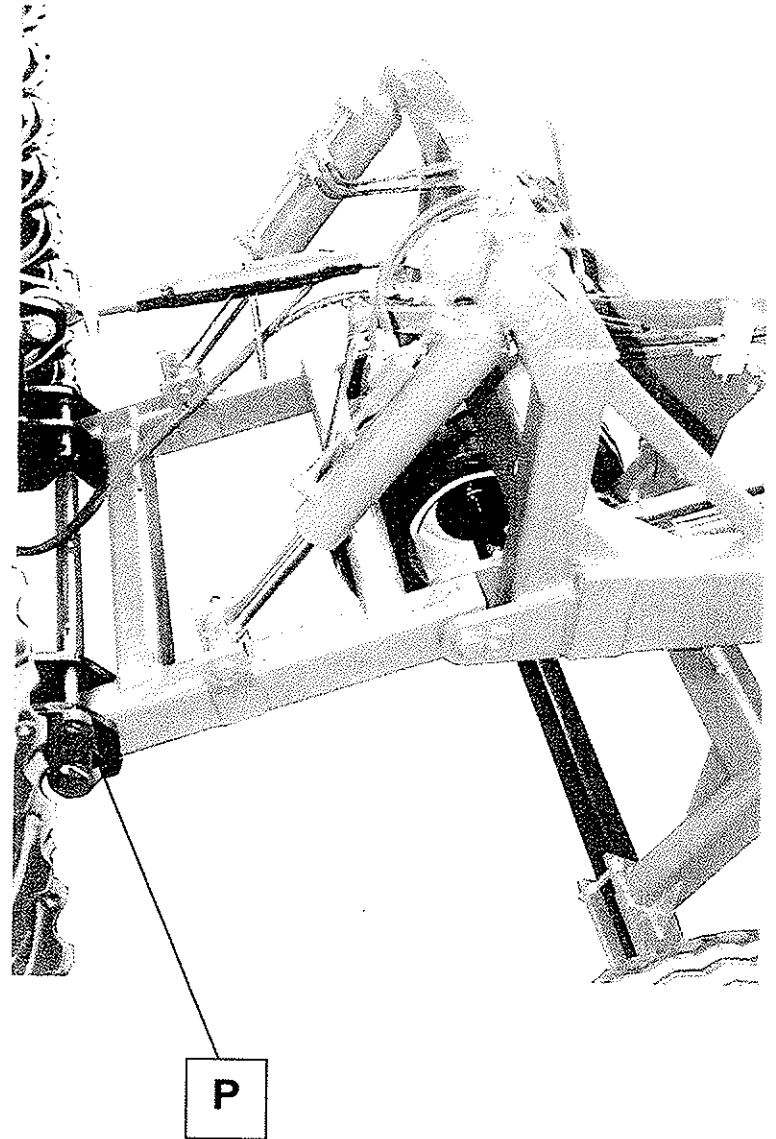
- ☞ Carry out adjustment and maintenance work only when the disc harrow is not in operation.
- ☞ Wear appropriate safety clothes when doing maintenance work
- ☞ Ensure a safety zone for other people.
- ☞ Do not carry out any adjustment and maintenance work without perfectly understanding the procedure.
- ☞ For all maintenance work, use the appropriate tools and equipment.



### **RECOMMENDATIONS**

- ☞ Get used to the disc harrow functioning and disc harrow controls. Do not let anybody use the disc harrow without previous training.
- ☞ Only the operator is allowed to be in the tractor cab. He must not leave the seat while working.
- ☞ Nobody is allowed to climb onto the machine during work.

## **ATTACHMENT OF REAR ROLLER**



## ATTACHMENT OF REAR ROLLER

The discardon DXN can be fitted with a lifting system placed at rear of the implement.

The lift is operated by means of a double-acting hydraulic cylinder.

An indicator marker indicates the working depth of the discs compared to the rear roller.

For attaching the rear roller :

1. Lower hydraulically the rear lifting system.
2. Unlock the fixation clamps (P) placed on each side of the roller jaws.
3. Reverse tractor and position the hitch bar under the jaws of the roller.
4. Raise the rear lifting device so as to insert the hitch bar into the jaws.
5. Fix the top link and raise the roller.
6. Lock the fixation clamps (P).
7. Connect the two hydraulic valves to the plugs located at rear of the discardon.
8. Raise the roller legs, and put the roller in transport position by operating the corresponding spool-valve.

## MAINTENANCE

During maintenance work, be sure that the safety instructions are respected.

Maintenance zone must be clean, dry and well-lit.

In case of intervention or unmaking of a disc gang with lifted machine, do systematically a shoring by means of holders.

After intervention be careful that all the tools and equipment are no more on the maintenance area.

All the articulations must be greased at regular intervals with quality grease.

Check regularly tightening of nuts and bolts.

Keep a correct tyre inflation pressure. Do not exceed recommended inflation pressure.

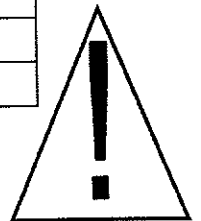
WHEEL 10.0-75x15 (10 PR) ←	5.2 bars
WHEEL 11.5-80x15 (10 PR) ←	4.6 bars
WHEEL 12.5-80X15 (12 PR) ) ←	5.1 bars

### ATTENTION !!

**Explosion of the tyre with the rim can provoke serious injuries. Only experienced people are allowed to repair tyres and rims with the appropriate tools.**

Always use genuine GREGOIRE-BESSON parts; these parts only correspond to the manufacturer's technical particularities.

**THE GOOD MAINTENANCE OF YOUR MACHINE  
GUARANTEES ITS LONG LIFE**



## STORAGE OF THE DISC HARROW

- ☞ If the machine is unused after season, clean the disc harrow carefully to prevent from every risk of corrosion and dampness.
- ☞ If necessary, carry out paint touchings up.
- ☞ Check that there are no worn or broken parts on the disc harrow. If the case arises, order the parts and ensure maintenance work.
- ☞ Park your disc harrow under cover from bad weather.

## HYDRAULIC CONNECTION



The hydraulic connection can be subjected to high pressures.

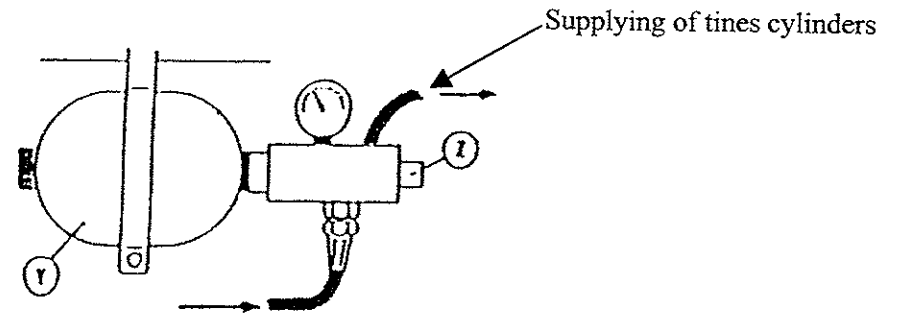
- ☞ When the machine is fitted with several oil plugs, respect the montage direction of each one.
- ☞ Before assembling oil plugs, check that the pressure is a nil draw on the tractor and the disc harrow.
- ☞ If you notice hoses in bad condition, do not hesitate to change it. Respect its dimensions.
- ☞ Never search for a leak with your hand. Leaking fluids (oil) can come through the skin and provoke serious injuries.
- ☞ In case of injury, consult a doctor immediately.
- ☞ In case of an intervention on the hydraulic system, lower the machine onto the ground, stop the pressure by stopping the tractor motor and then by acting on the spool-valve.

## **PRESSURE ADJUSTMENT OF HYDRAULIC SAFETY DEVICES**

When the discardon is fitted with hydraulic release, the hydraulic circuit of the tines cylinders is connected with the circuit of the discardon lift ram.

To execute the circuit filling up or to adjust the pressure, observe following instructions :

- Loosen the conical end screw (Z) y 2 or 3 turns.
- When the needle of the pressure gauge is between 100 and 150 bars in the green zone, pressurize the hydraulic circuit by supplying the discardon lift system.
- Retighten the conical end screw (Z) : the discardon lift circuit is now independent again.



*Supplying of discardon lift ram*

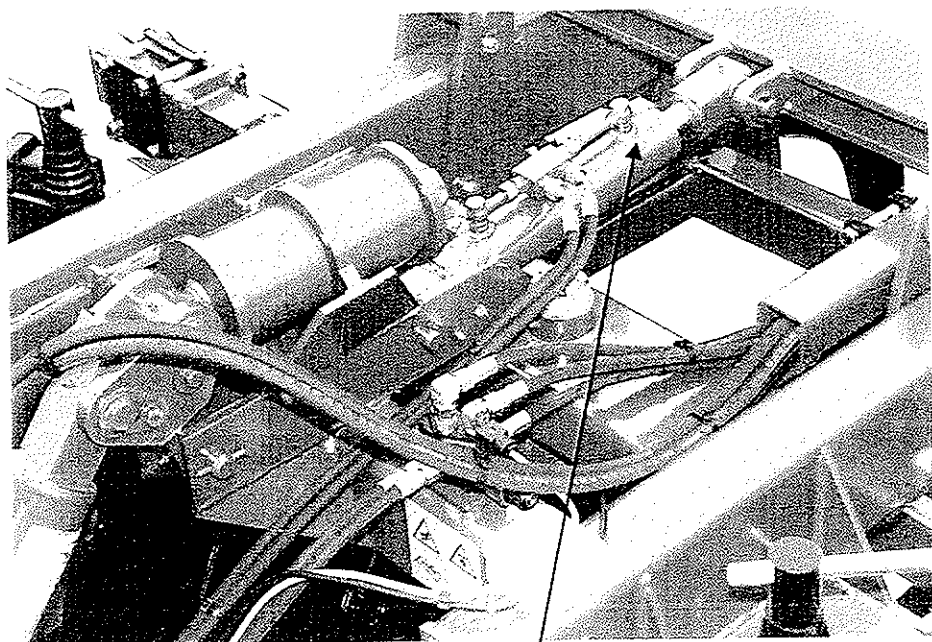
## NITROGEN INFLATION PRESSURE

The nitrogen pressure in the accumulator is determined at the beginning and cannot be changed (standard : 100 to 150 bar maxi.).

## TINES DEPTH ADJUSTMENT

### HYDRAULIC ADJUSTMENT

Operate the tractor spool-valve. A valve placed on the ram makes it possible for the system to be locked to the wished depth.  
(See page 18 for hydraulic equipment)



RAM

## ROAD TRANSPORT

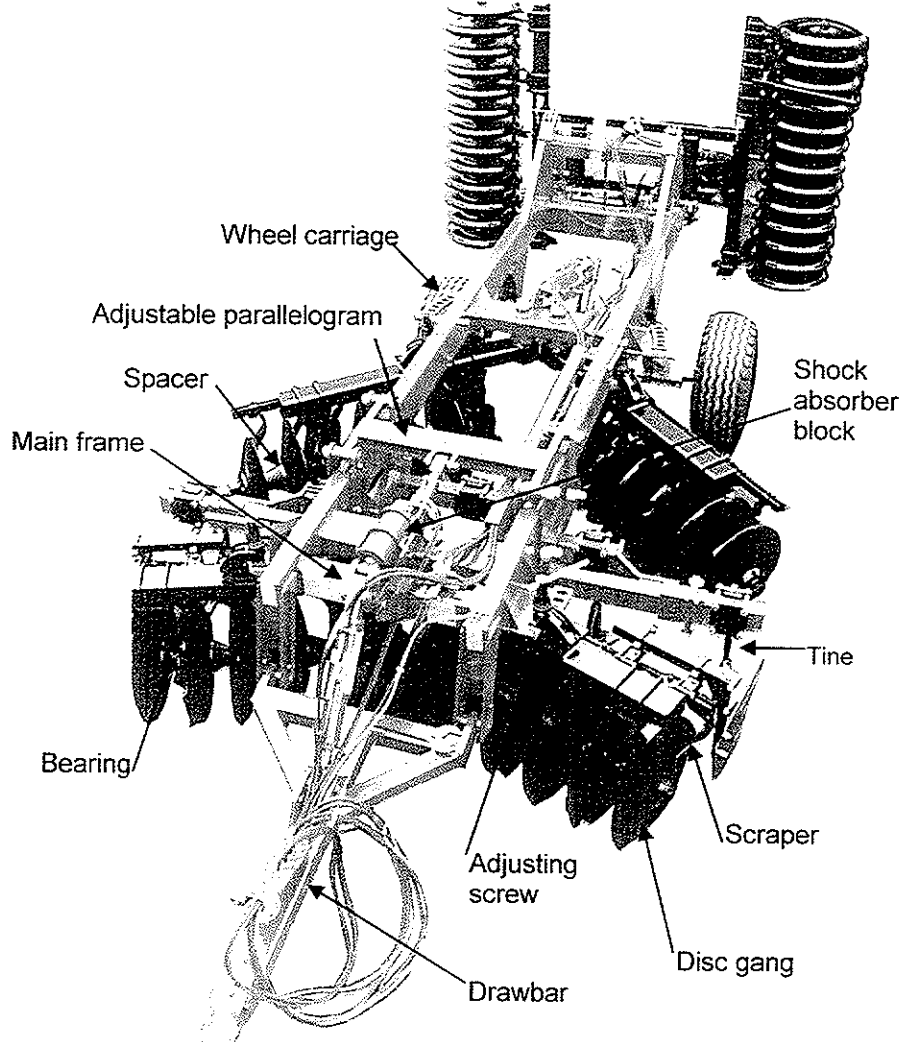


**FOR YOUR SAFETY AND THE SAFETY OF OTHERS  
RESPECT THE FOLLOWING SAFETY INSTRUCTIONS:**

- The lifting system of the machine is fitted with a safety pin Position the safety pin. (see view p.9). It operates as a safety in case hose breaks during transport.
- When you hitch the machine to the tractor, check the drawbar height and also the fixation which locks the drawbar ring to the tractor hook.
- In case the machine is fitted with a folding system during transport, put it into position. Be careful that nobody is standing near the machine.
- The use of the GREGOIRE-BESSON machines must always be made in accordance with the current directives and rules regarding road safety.
- Drive at a reasonable speed in conformity with the laws to be able at any time to control both tractor and machine.
- Do not drive when somebody is standing near the tractor or the machine.
- Comply with all the safety rules when driving, particularly on bends or on narrow roads.
- During road transport, the machine must be fitted with warning lights, which are to be removed during work to prevent them from damage.
- Take all the precautionary measures when you leave the tractor : stopped motor, removed ignition key, start of the park brake for some models.
- ☞ During road transport, nobody is allowed to climb onto the machine or between the tractor and the machine.
- ☞ To regularly check the state and the fixing of the ring hitches, not to hesitate to change the wearing parts.

## IDENTIFICATION OF DISCORDON DXN

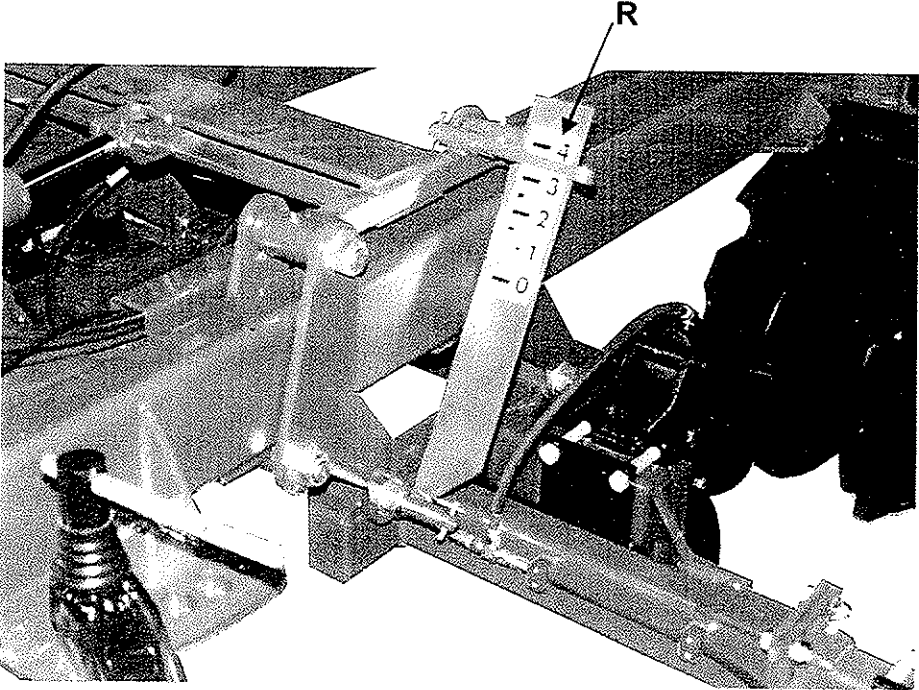
### GENERAL VIEW



## TINE DEPTH ADJUSTMENT

### HYDRAULIC ADJUSTMENT

Operate the tractor spool-valve which transmits the raising and lowering movement of tines.  
A graduating **R** indicates the tines depth.



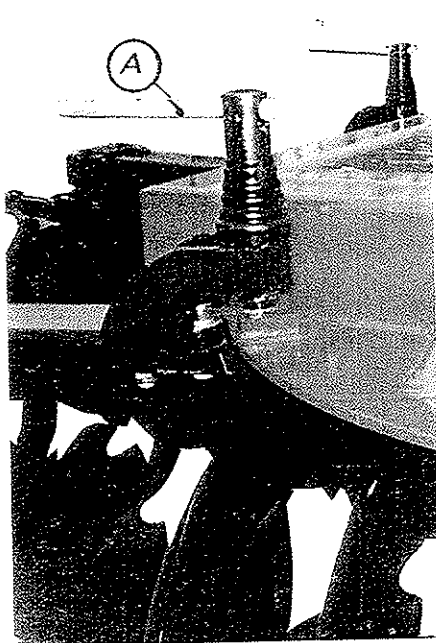
Nota : Tines are fitted with shares with carbure points. The easily removable wing is larger on the central tine.

## GANG ANGLING ADJUSTMENT

The Discordon type DXN is fitted with a gang angling adjusting device, giving the possibility to choose from 5 different positions.

Insert the tightening screw (A) as support in the selected position, the screw holds the disc gang in position, and is used for easing the swivel during transport as well.

- ☞ Put the machine in transport position.
- ☞ Loosen the tightening screw.
- ☞ Pivot manually the disc gang insert the screw in the selected position.
- ☞ Lower the discs into the ground and retighten the screw.



**View transport position**

The good work of the machine depends on the correct adjustment of the disc gangs. A proper balance between the opening of front and rear disc gangs is necessary. The working depth adjustment is obtained by increasing the cutting angle of the front discs, i.e by pivoting the front gang to front part of the machine.

If the worked land is left with a ridge in the middle, reduce the rear cutting angle. In case of a hollow, increase the angle.

## DESCRIPTION OF DISCORDON DXN

The Discordons 3.20 m is a multi-purpose machine, which can be used for stubble-clearing and soil preparation.

### COMPONENTS OF THE MAIN FRAME :

4 disc gangs in X-shape, between which 5 tines are inserted. These tines are mounted at regular intervals on a parallelogram, whose height can be mechanically or hydraulically adjusted.

The protection of tines are ensured by means of shearbolts or with cylinders and accumulators in hydraulic non-stop version.

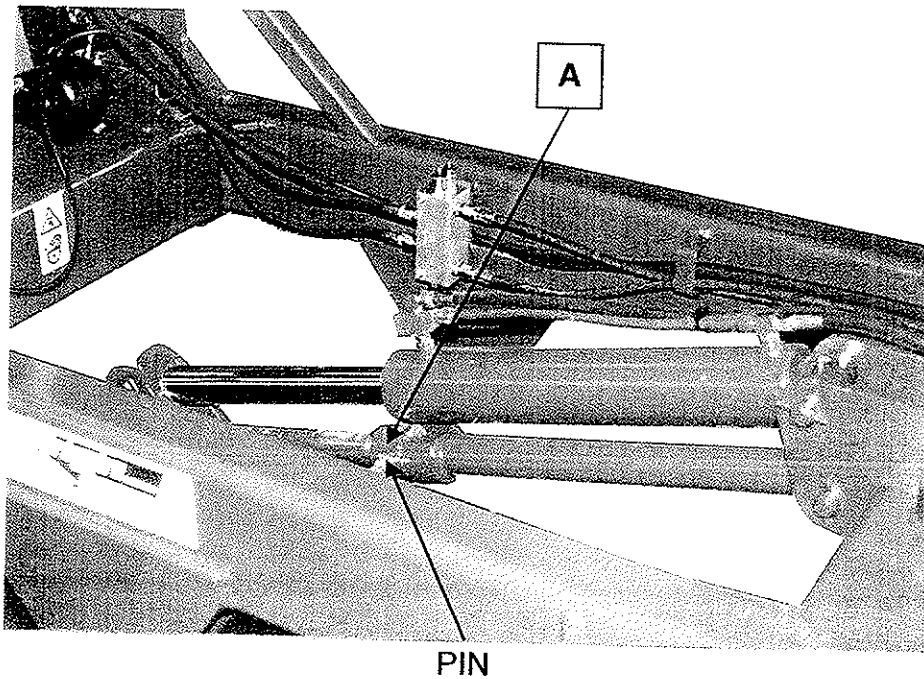
When lifting the machine in transport position, operating the tractor spool-valve makes it possible to supply both main frame lifting ram and drawbar cylinder.

### POSSIBLE COMBINATION WITH FOLLOWING OPTIONAL EQUIPMENTS :

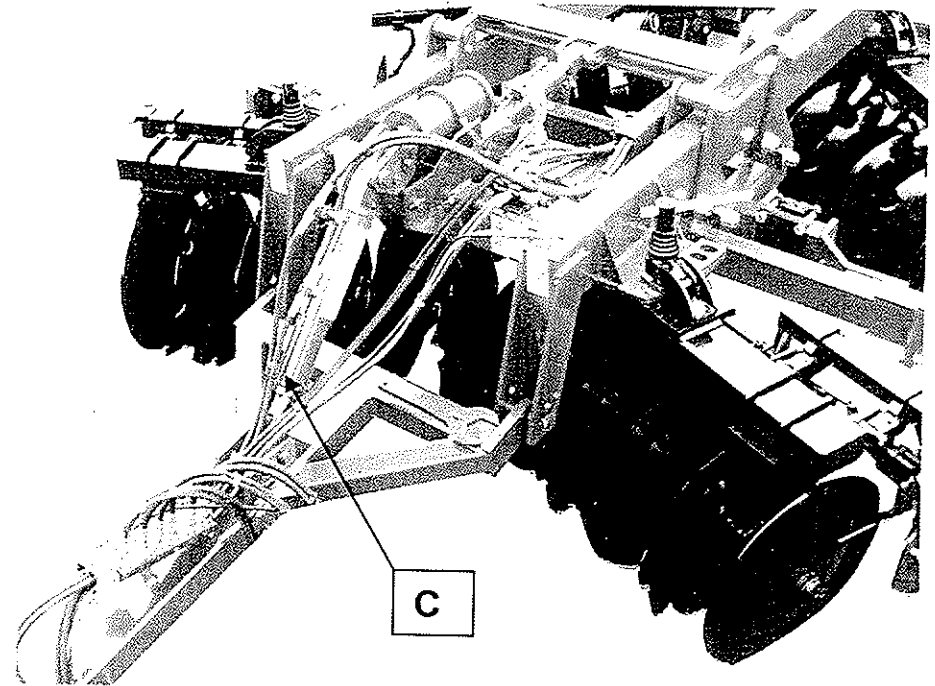
Discordons - equipped with a crumbler roller or Emopak roller - 3.60 m wide - with roller support adaptable on main frame.

## ATTACHING TO THE TRACTOR

- ☞ Ensure that all hydraulic couplings are clean before connecting to the tractor.
- ☞ Attach the drawbar ring to the tractor hook, operating the spool-valve. If necessary, adjust the position of the ram fixation (ram stick side) by changing the hole on the drawbar.
- ☞ Raise the machine in horizontal position and stabilize it.
- ☞ Slide the ring (A) in the depth limiting bar placed under the cylinder.
- ☞ Insert the pin into the hole crossing the ring (A) and the depth limiting bar. This locking position will provide an additional safety in case hose breaks during transport.



## ATTACHMENT TO THE TRACTOR



Nota : The ring ( C ) will be adjusted according to the wished depth, when beginning to work with the discardon.