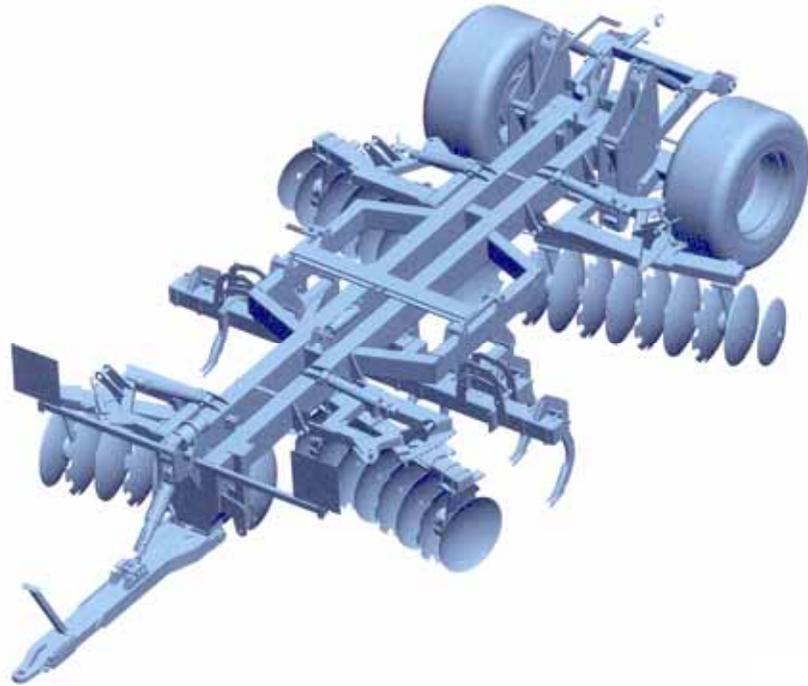


# DISCORDON SEMI-MOUNTED



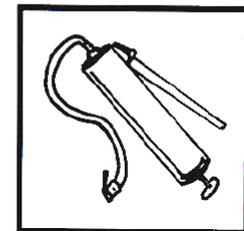
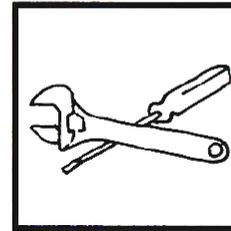
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## NOTICE 2007

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ADJUSTMENT

MAINTENANCE



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## << DXR >>

X DESIGNED VERTICAL FOLDABLE

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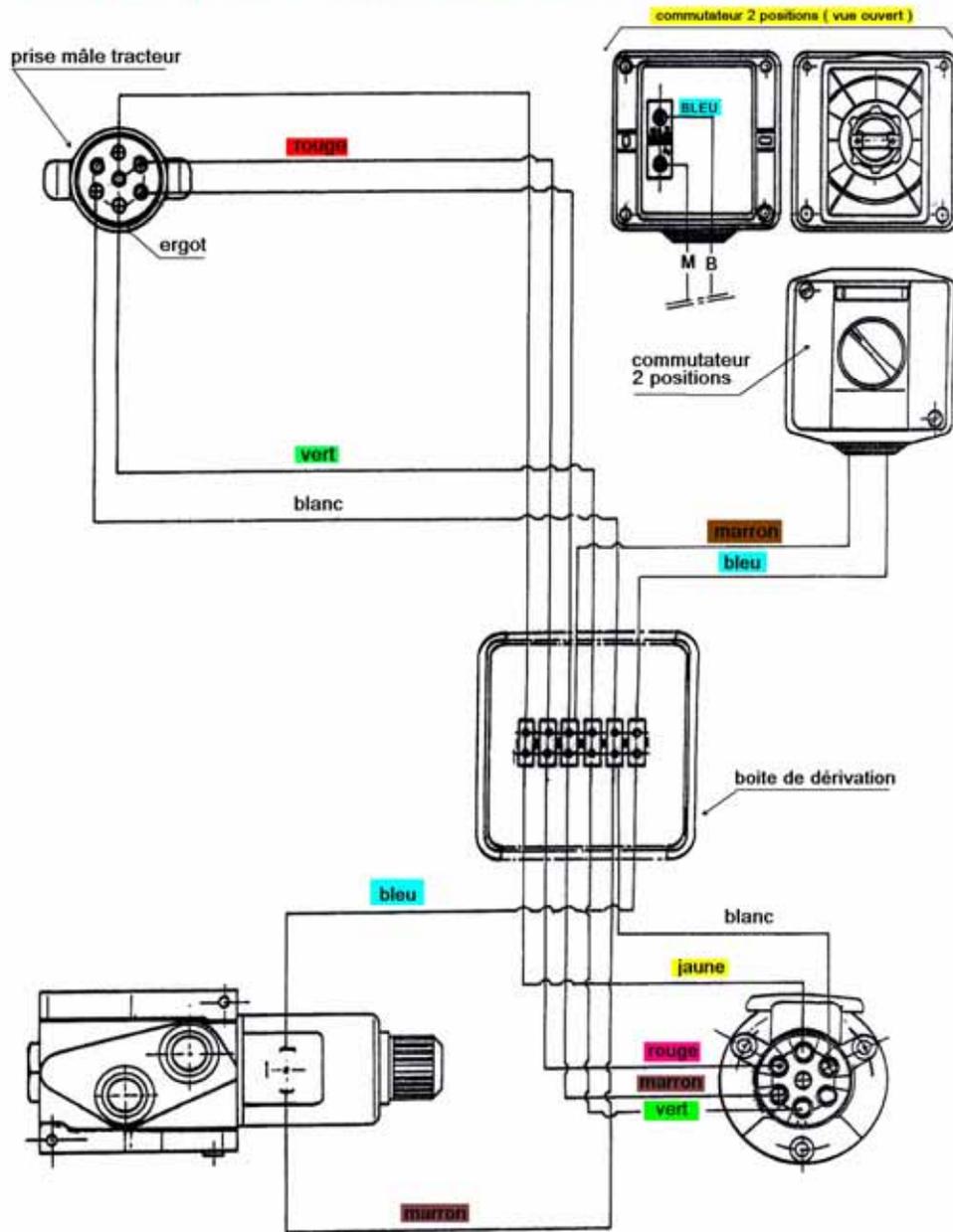


GRÉGOIRE  
BESSON

## 2 FUNCTIONS SELECTOR



Turn selector to choose desired hydraulically controlled function



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## INTRODUCTION

### READ CAREFULLY THIS MANUAL

In this operator's manual are given all information for proper and safe adjustment, operation and maintenance of the machine.

Read it entirely and carefully before using the machine and follow all safety recommendations.

For an easier and optimal use of the machine, read this manual entirely and follow recommendations in the given order.

This instruction manual must be considered as an integral part of the machine and handed over in case of reselling.

Right hand side and left hand side, front end and rear end are determined by facing in the direction the machine will work in the field.

All information, drawings, and specifications given in this manual are the newest at the time of publication.

Manufacturer reserves right to make any modification at any time without any obligation to notice or to modify any delivered or already sold machine.

**If the machine has been modified in any way from the original design without written agreement from Grégoire-Besson, the manufacturer does not accept any liability for injury or warranty. Warranty would become void.**



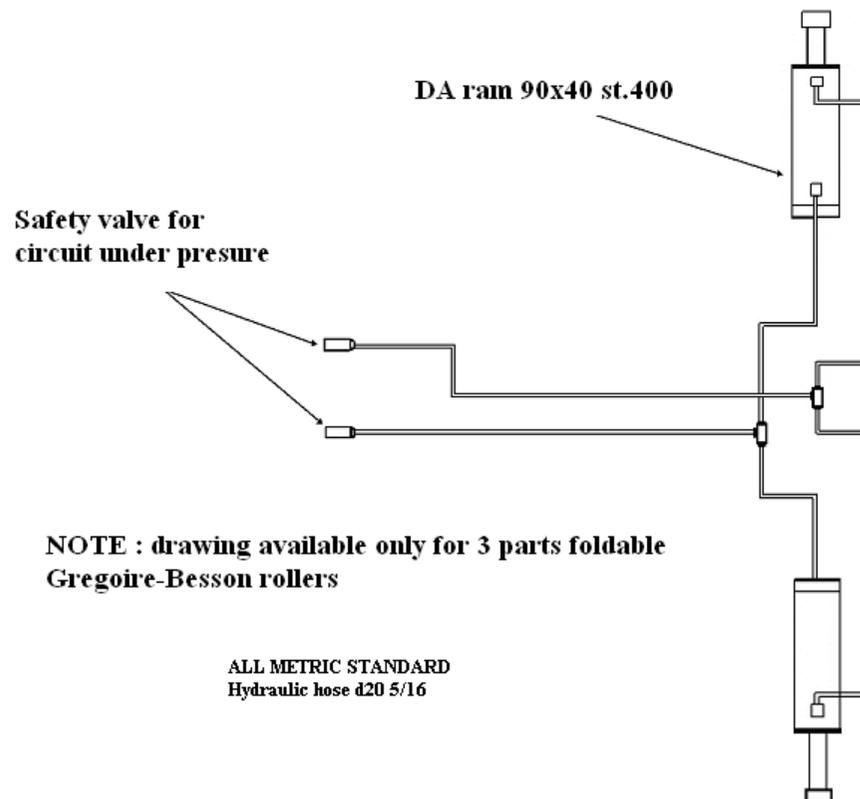
This symbol is used in the following manual to **catch your attention on warnings concerning your safety.**

So please when you see it in this manual or on the equipment, **strictly follow given information.**

Grégoire-Besson equipments are exclusively designed to be used by professionals for regular farm tillage in farmed fields. Manufacturer shall not be responsible for damage or injury resulting from any other use.

## HYDRAULIC FOR REAR ROLLER

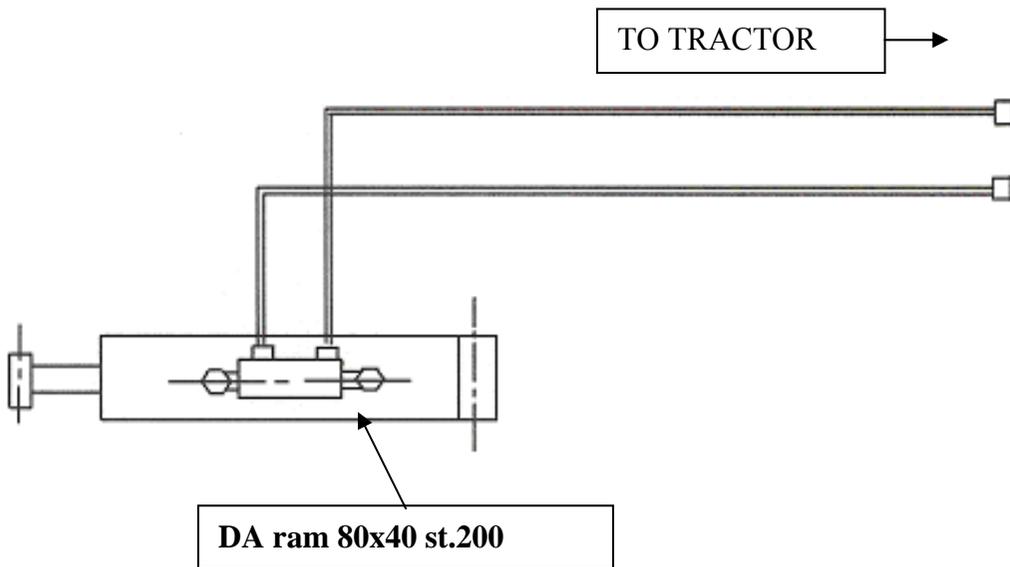
### 3 PARTS FOLDABLE REAR ROLLER



# HYDRAULIC FOR TINES WORKING DEPTH

**NOTE :** tines working depth adjustment requires 1 DA remote for each assembly (L.H. and R.H.)

Tines assembly adjustment side (L.H. or R.H.) is written on selector by mark 1 or 2 (refer to page 35)



# SAFETY STICKERS

**READ THE INSTRUCTIONS. BOOKLET.**



Read the instructions booklet and the safety instructions before the machine start. Respect them during work.

**SAFETY ZONE**



Stay in the background of the safety zone when the machine is unfolding.

**MOVE AWAY FROM THE MACHINE.**



Danger in the working zone : stay in the background.

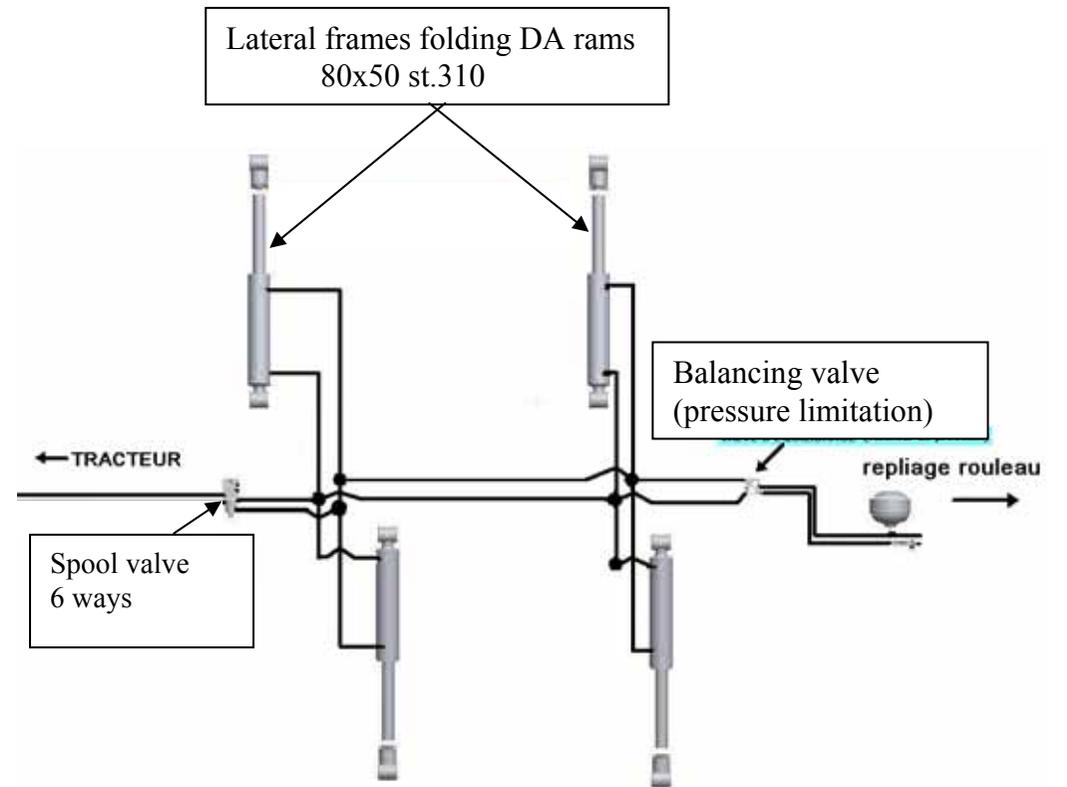


**LOCKING BEFORE ACTION.**  
Install the locking system before any intervention on the machine.



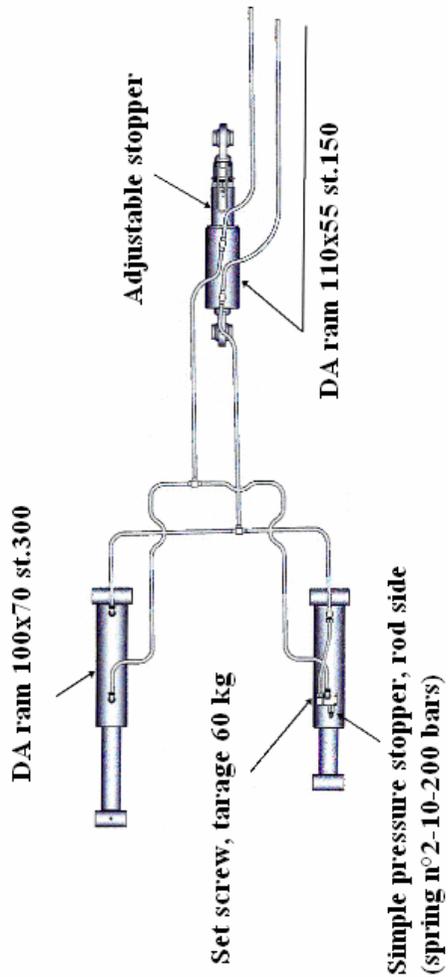
**LEAK AND MAINTENANCE.**  
Be careful of the leaks of fluids under pressure. Refer to the instructions of this booklet for the maintenance.

HYDRAULIC FOR FOLDING



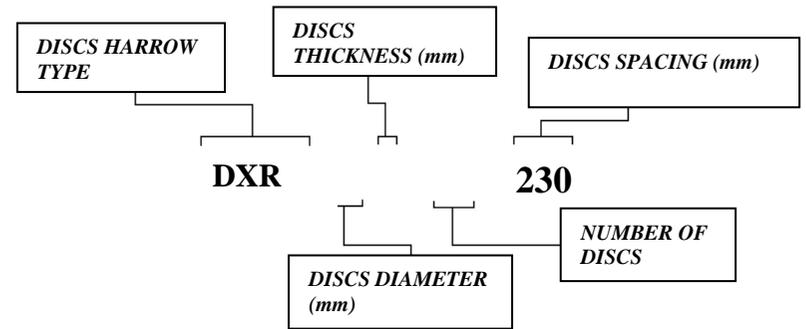
# HYDRAULIC FOR CARRIAGE AND DRAWBAR

## HYDRAULIC FOR CARRIAGE AND DRAWBAR



ALL METRIC STANDARD

# MACHINE IDENTIFICATION



These indications are given on the serial number plate set on the front end of the main frame. Record here after purchasing date, model and serial number of the machine. Always refer to these information to get prompt and good service.

SERIAL NUMBER

MODEL

PURCHASING DATE

### NEVER REMOVE IDENTIFICATION PLATE

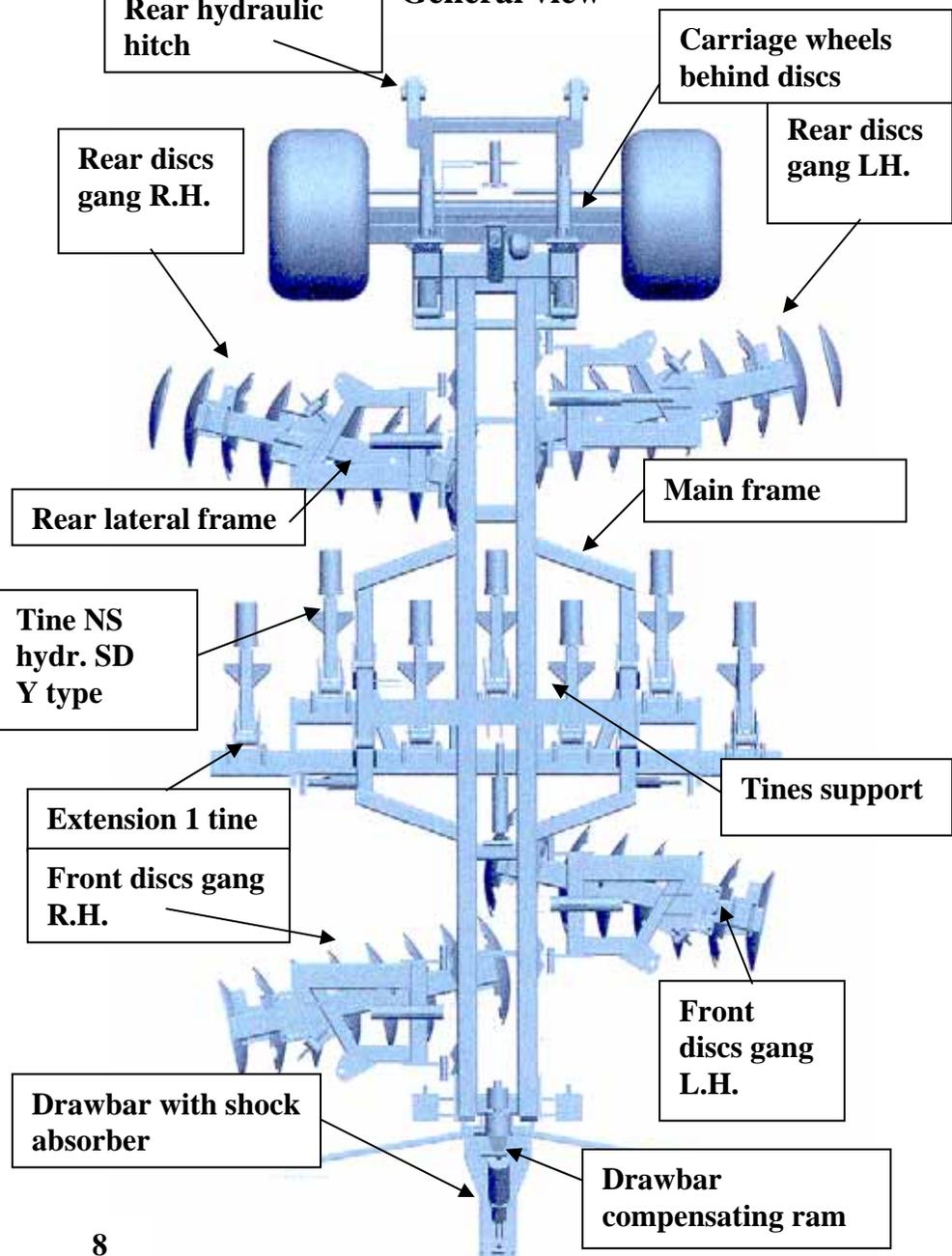
This machine is equipped with an hydraulic rear 3 points hitch. Available rollers for combination : RBRV2 or SRV2.



MAXIMUM SPEED ON PUBLIC ROAD (km/h)

## IDENTIFICATION VIEW

General view



## HYDRAULIC EQUIPMENTS

FUNCTION	COLOUR	REQUIRED REMOTES	HYDRAULIC SPOOL VALVE
Carriage wheels + compensating ram	<b>RED</b>	1 DA	
Lateral frames folding	<b>GREEN</b>	1 DA	
Tines working depth	<b>YELLOW</b>	1 DA	1 SELECTOR 6 WAYS 2 FUNCITONS
Rear hitch height		1 DA	

## 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 and sandy, greasing can be carried out more frequently.

Check the pressure and the tightening of the wheels which equip the wheeled carriage.

In case of dismantling of a complete disc gang with carrying tube, steady 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 shaft threads and nuts inner sides. Tighten the nut at the end of the shaft with a power of about 150 kg/m.

## DESCRIPTION

Discordon are versatile machines equipped with hydraulic folding device to be less than 3.00 m wide in transport position. They may be used first after harvest, last before seeding or as a one pass finisher.

### FRAME ARRANGEMENT

**1-** Central carriage frame

**2-** Lateral foldable frames (hydraulic)

4 discs gangs with « X » design

2 front gangs overlapping

2 rear gangs face to face

mechanical turnbuckle for angle adjustment

Tines in between discs gangs

5 tines on 3.20 m and 3.60 m models

7 tines on 4.05 m model

hydraulic control for height

shear bolt or non stop hydraulic protection

**3-** Carriage wheels lift rams and compensating ram on drawbar are linked so that machine stays levelled when raising and lowering.

Several types of discs are available (Ø, thick., profile, ...), several types of tines are available in option.

Discordon are equipped with foldable rear roller. It shall be wider than discs working width.

## SAFETY INSTRUCTIONS

This Gregoire-Besson implement has been exclusively designed to be used by professionals for regular farm tillage in farmed fields.



Manufacturer shall not be responsible for any damage or injury resulting from any other use.

Machine shall be operated, maintained and serviced by persons knowing its particular specifications and corresponding required safety equipments and procedures.

Learn how to operate the machine before using it in the field. Then it will be too late.

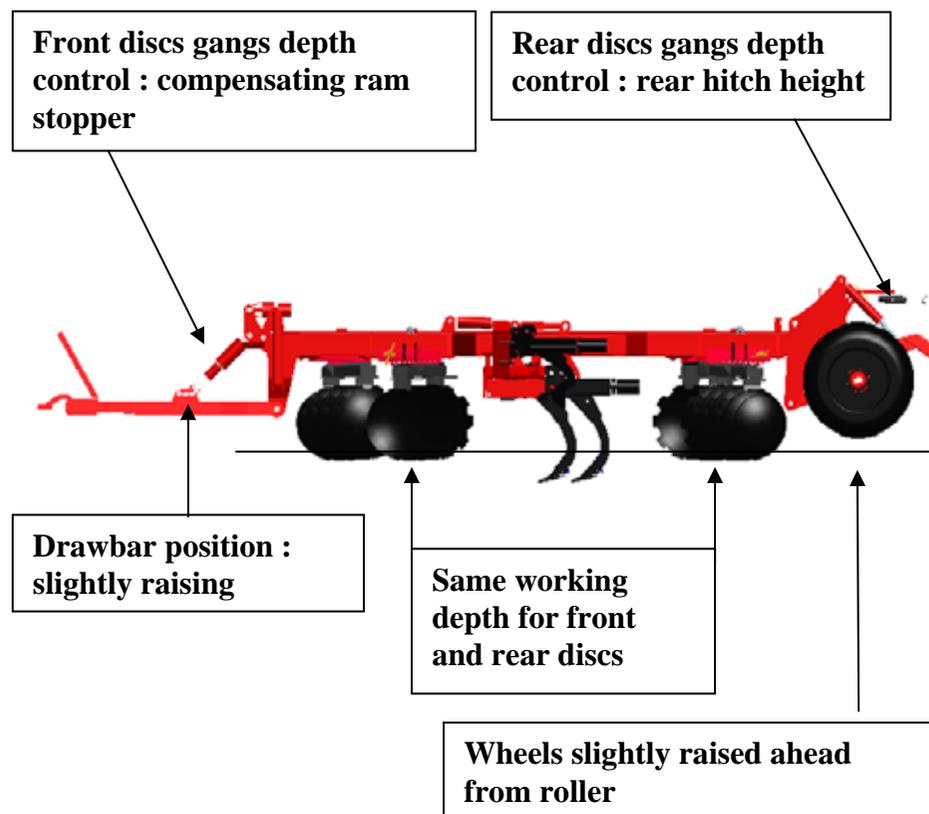
- Never attempt any intervention on the machine while it is in motion.
- Wear close fitting clothes and safety equipments appropriate to the job to do.
- Define a safety area for bystanders.
- Never perform any adjustment as long as its procedure is not perfectly understood.
- Always use tools or equipments appropriate to the job to do.



### **RECOMMANDATIONS**

- Get used to the disc harrow functioning and disc harrow controls. Do not let anybody use the disc without previous training.
- Only the operator is allowed to be in the tractor cab. He can not leave his seat during is working.
- Nobody is allowed to be on the implements during the work..
- In case of unfolding the disc gangs and the roller, be sure that there is nobody standing in the turnover area of the implements. Operate the folding system only from the cab of the tractor.

## BASICS ADJUSTMENTS



## ADJUSTMENT ADVICES

PROBLEM	ORIGIN!	SOLUTION
Working too shallow	Discs gangs angle too slight Wheels carrying weight	Increase angling  Raise wheels and / or roller
Working too deep	Discs gangs angle too important Roller not carrying enough	Derease angling  Lower wheels and / or roller
Machine not pulling straight	L.H. and R.H. discs gangs do not have the same angle	Check gangs angle, they shall be the same on both sides
Stuffing of the disc gangs.	Scrappers not correctly adjusted. Working conditions not suitable	Adjust the scrappers.  Reduce the angling.

## MAINTENANCE

During maintenance, be sure that the safety instructions are respected. Maintenance area must be clean, dry and well lighted.

- In case of intervention or unmaking of a disc gang with lifted machine, do systematically a shoring by means of holders. Make sure all tools and equipments are removed after any intervention.
- All the articulation and greasing points must be greased at regular intervals with quality grease.
- Check regularly tightening of nuts and bolts.
- Always use original genuine parts.
- Keep a correct tyre inflation pressure. Do not exceed recommended inflation pressure.

WHEEL 15 R 22.5	→ 6.0 bars
-----------------	------------

WHEEL 500x45-22.5	→ 3.3 bars
-------------------	------------



### WARNING

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

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

## **STORAGE**

- If the machine is unused after the season, clean it carefully to prevent from every risk of corrosion and dampness.
- If necessary, carry out paint touching up
- Check, if there is some worn or broken parts, and place an order, to be sure to have your implements ready for the next season.
- Park machine in working position (unfolded), under cover, ram rods retracted or greased.
- Remove pressure from hydraulic lines.



## **HYDRAULIC CONNEXIONS**

Hydraulic connexions are subjected to high pressures.

- When the machine is equipped with several plugs, be sure to put them right.
- Before plugging a push-pull, be sure that there is no pressure on both sides (tractor and machine).
- If a hose is damaged don't hesitate to replace it.
- Never search a leak of oil with your finger. Leaking fluids and especially oil can provoke some very serious injuries. Contact a doctor in case of contact
- In case of an intervention on the hydraulic system, bring the implement in contact with the ground; remove pressure by switching off the engine and then acting the spool valve.

## **HITCHING AND ADJUSTING REAR EQUIPMENT**

### **Hydraulic depth adjustment**

Two rams control rear hitch height. They may control roller pressure on the ground.

An indicator visible from the cab allows operator to estimate working depth (refer to page 24).

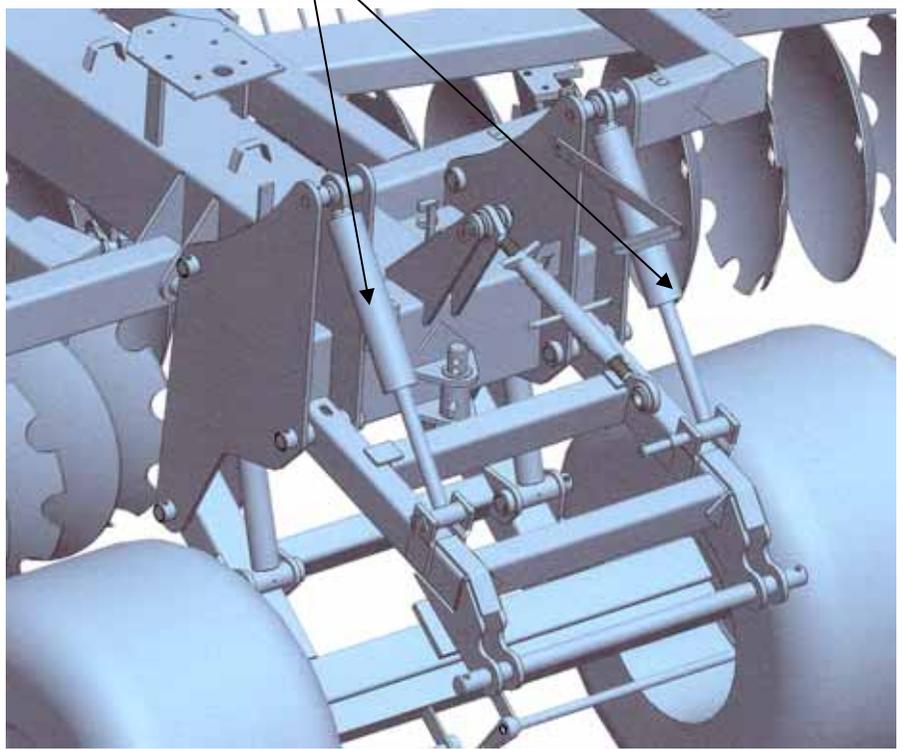
To reach the best result, follow here above recommendations :

- set discs gangs angle according to conditions : more angle in hard conditions,
- if machine leaves a ridge in the middle before roller action, decrease rear gangs angle,
- if machine leaves a hole in the middle before roller action, increase rear gangs angle,
- machine shall work with main frame parallel with the ground (= same working depth for front and rear discs). If not, adjust compensating ram stopper on drawbar,
- check roller levelling (adjust rear hitch top link),
- for 3 parts roller, check that pressure given by hydraulic accumulator on roller carriage rams gives a perfect levelling.

If roller lateral frames tends to raise up, act on balancing valve at the rear of the machine (refer to page 31) : screw jam nut without locking it to have roller working level.

## HITCHING AND ADJUSTING REAR EQUIPEMENT

**HYDRAULIC LIFT RAMS**



**DEPTH INDICATOR**

## TRANSPORT ON THE ROAD.



### **FOR YOUR SAFETY AND THE ONE OF THE OTHERS RESPECT FOLLOWING RECOMMENDATIONS**

- While hitching the machine to the tractor, check hitch height and tractor drawbar fixing (centred).
- If machine is foldable, make sure there is no one in the area and fold it.
- All Gregoire-Besson equipments shall be used complying with current applicable laws concerning road safety and occupational medicine.
- Drive at reasonable speed to keep control of vehicle at any time. Stay alert and careful. Pay special attention on rough roads, drive slowly and avoid sharp turns. Do not accelerate or stop suddenly. Drive safely on curves or narrow roads.
- Never attempt any manoeuvre if someone is close from the machine or from the tractor.
- Operate the machine with daylight or use lighting kit. All lights, reflectors and signs required shall be installed for road transport and may be removed during field operation to prevent from any damage.
- When leaving the tractor, even for a short period, shut off engine, remove ignition key, set parking brakes. If machine is equipped, set its brakes too.
- No one shall stand on the machine or between machine and tractor during road transport.
- Regularly check hitching ring state, do not hesitate to change any worn part.
- Regularly check tyre pressure and wheel stud tightness.

## ASSEMBLY

To facilitate transport from manufacture, machine may not be totally assembled at delivery.

**DXR** has a main frame on which one 4 lateral frames are set to receive discs gangs. These lateral frames are equipped with vertical hydraulic folding for transport position.

The four discs gangs (= machine working elements) are set per pair on the machine.

### HITCHING MACHINE TO THE TRACTOR

- Check hydraulic connectors cleanness before plugging them to the tractor.
- Connect hydraulic lines following the logical way.

**Function A = hoses with red tie rap** : lift rams and compensating ram on drawbar.

**Function B = hoses with green tie rap** : folding / unfolding rams.

**Function C = hoses with yellow tie rap** : tines height adjustment and rear hitch height adjustment (refer to pages 29 and 35).

## ADJUSTING NON-STOP HYDRAULIC SAFETY DEVICE

For machines equipped with non-stop hydraulic tines safety device, circuit is linked with lateral wings folding circuit.

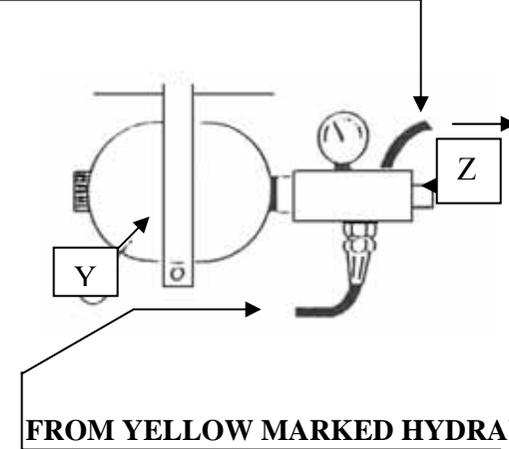
To adjust pressure in safety device, follow here above procedure :

- Loose set screw **Z** (2 to 3 turns).
- Set pressure acting on appropriate control lever in the cab.

**Always stay on the green zone in the gauge**, accumulator Y shall work **between 100 and 150 bars**.

- Tight back set screw **Z**.

**TO TINES SAFETY DEVICE RAMS**

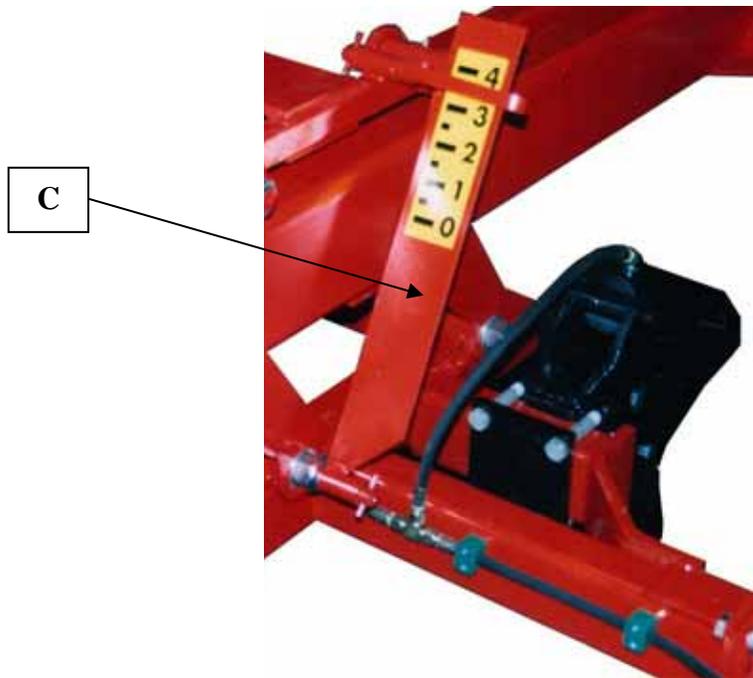


## ADJUSTING TINES WORKING DEPTH

Tines working depth is hydraulically controlled.

Act on appropriate hydraulic control lever in tractor cab to raise or lower tines (function C = yellow).

Cursor C gives an indication to operator on tines position.



**NOTE :** tines are equipped with carbide reinforced points.  
easy removable wing is wider on central tine.

For machines equipped with hydraulic spool valve, it is set on yellow marked hoses. Acting on switch operator will choose the function he controls.

Hydraulic spool valve has to be connected to the 12 V plug at the rear of the tractor.

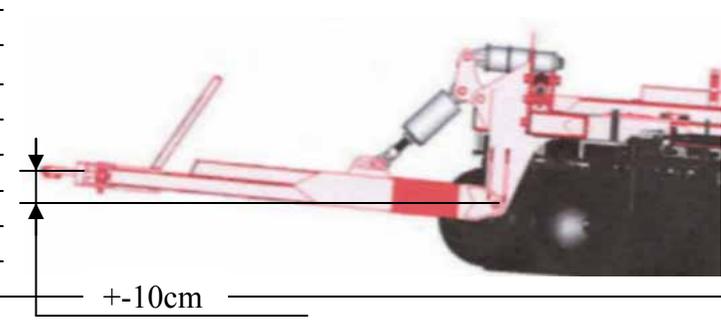
Tine hydraulic height adjustment and roller folding may be separate functions if tractor is equipped with 3 double acting remotes (= no spool valve).

- **Attach** machine ring hitch to the tractor hitch acting on remote controlling carriage height and drawbar compensating ram (function A = red). Properly lock hitch pin once machine is attached.

- **Raise** machine and pivot parking leg, lock it in working position with its pin.

- **Unfold** machine, put lateral frames parallel with the ground.

- **Put** lateral frames 1.10 m approx. above ground surface to attach discs gangs.



## ASSEMBLING DISCS GANGS UNDER LATERAL FRAMES

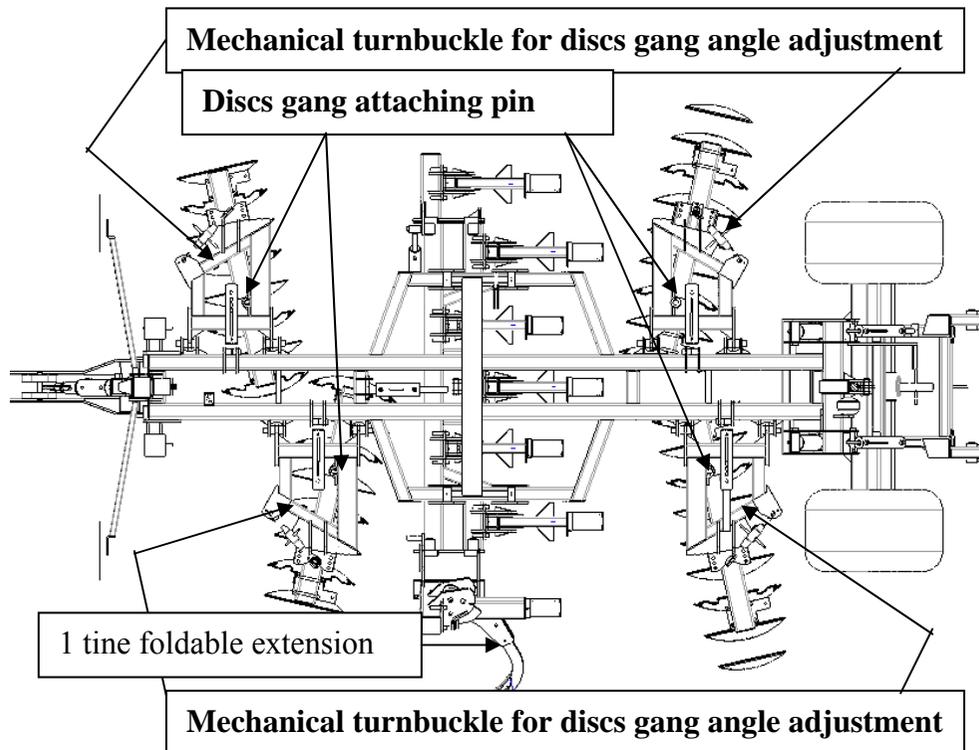


**ATTENTION**: this operation is delicate because of the important weight of discs gangs (350 to 1 000 kg) according to models, and because of the difficult access to fixing points.

Only specially trained persons used to this kind of job and properly equipped shall do it.

Chain lock with front to rear movement possibility or fork lift strong enough to carry the weight is required.

Discs gangs are fixed on lateral frames through 3 pins. To lock the 3 nuts a special wrench is located on drawbar.

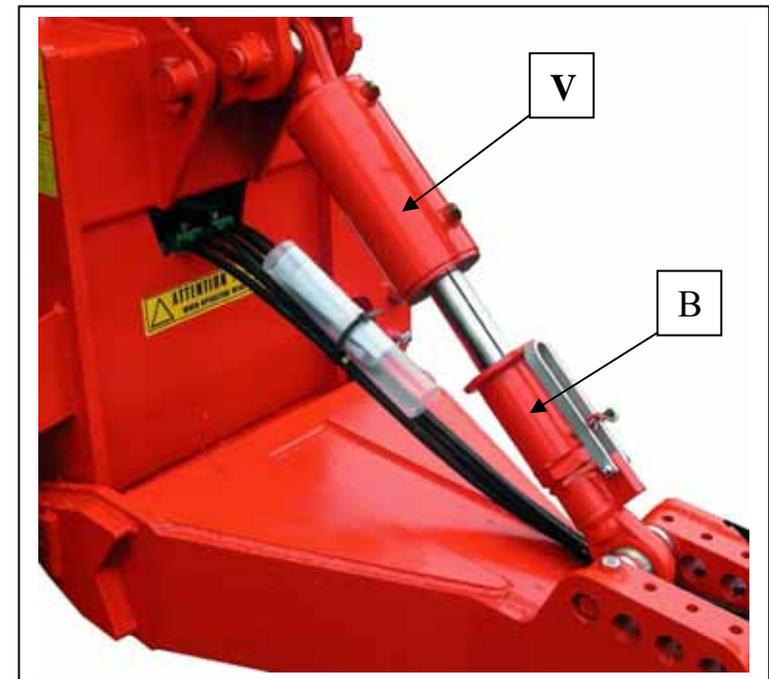


## ADJUSTING DISCS WORKING DEPTH WITH COMPENSATING RAM

Front discs gangs working depth is set adjusting stopper B on ram V (refer to picture).

To increase working depth, turn stopper B counter clockwise to allow maximum ram shortening.

To set rear discs gangs working depth (that shall be the same as front one) adjust hydraulic rear hitch ram length. Refer to page 24.





## CHANGING TO TRANSPORT POSITION

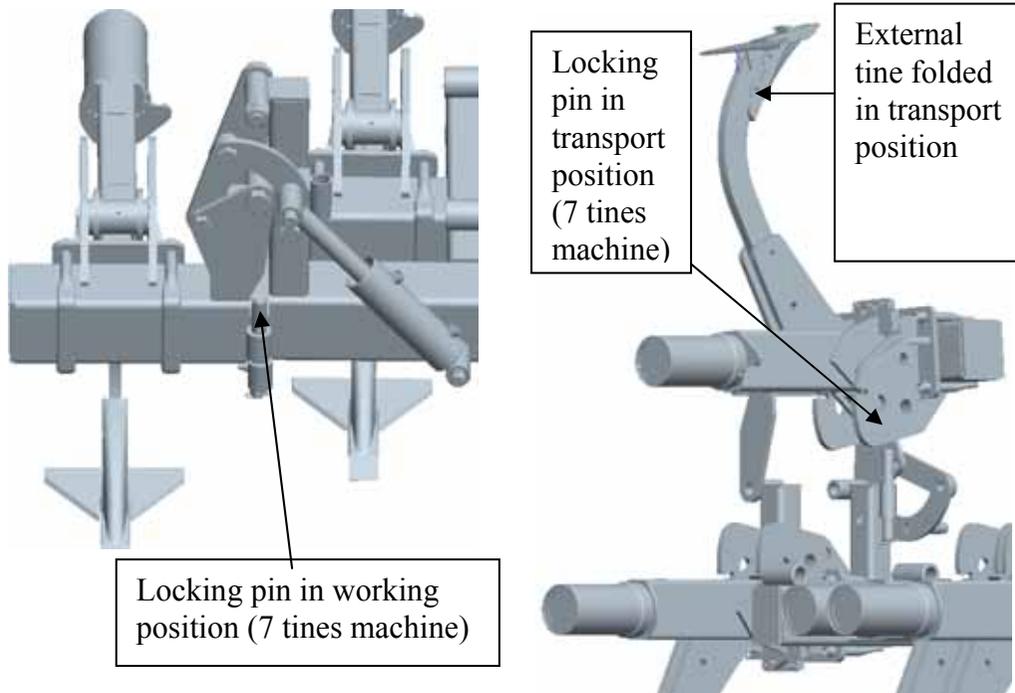


**IMPORTANT** : make sure folding / unfolding area is free before any operation.

- In tractor's cab act on hydraulic control lever to fold machine in transport position (function B = green).
- When lateral frames are in vertical position, keep a few seconds so that a hydraulic device automatically locks them in position.
- If machine is equipped with a rear roller, it can be secured automatically or by hand depending on model.
- To put machine in working position, proceed the opposite way.

Transport width : 5 tines machines < 2.50 m

7 tines machines < 3.00 m (vertical folding for external tines)



## SIDE TO SIDE LEVELLING

Procedure for this adjustment :

- Unfold machine in working position.
- Lower machine on its discs.
- Remove pressure from folding circuit acting on control lever in the cab once engine is shut off.
- Loose jam nut (E).
- Change ram rod length with provided wrench.
- Tight back jam nut (E).

