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# Operating Instructions

Subsoilers

**Labrador 160**



**Safety is our concern!**

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Part No. 175 3652

GB-2/06.02

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## **Dear customer!**

We would like to thank you for the confidence in buying this implement.

The advantages of this implement will be shown, only, when operated and used with due care and attention.

When handing over this implement your dealer has already instructed you with regard to operation, adjustment and maintenance. But this short introduction requires an additional detailed study of the instruction book.

Therefore read this instruction book carefully before the first use. Please pay attention to the safety instructions mentioned in this instruction book.

Any changes and modifications carried out not being mentioned expressly in this instruction book, may only be carried out with a written agreement of the manufacturer.

## **Ordering spare-parts**

When ordering spare-parts please state type and serial No. of the implement. This information will be found on the identification plate.

Put down this data on the following table so that it is always available.

|                    |
|--------------------|
| Type of implement: |
| No.:               |

Only use genuine Lemken spare-parts. Spurious parts negatively influence the function of the implement, show a shorter lifetime and increase in nearly all cases additional maintenance.

We trust that you will understand that LEMKEN is unable to guarantee poor operation and damage caused by using spurious parts!

## DEFINED USE



- Please familiarise yourself with the LEMKEN Labrador and its operations before putting the implement to work. Therefore use this instruction book with the „General Health- and Safety precautions“!

• The LEMKEN Labrador have been designed purely for the agricultural use!

Any use beyond the one stipulated above is no longer considered as defined use!

Under „defined use“ the manufacturer’s prescribed operation-, maintenance- and repair conditions are to be adhered to!

- The LEMKEN Labrador may only be operated, maintained and repaired by such persons who have been made acquainted with it and who have been advised about the dangers!
- The applicable accident prevention advice as well as the generally accepted safety technical, working, medical and road traffic rules should be adhered to!

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## 1 SAFETY INSTRUCTIONS



### General Safety Instructions

- Before using the machine, always check both it and the tractor for roadworthiness and operational safety!
- As well as the notes in these instructions the operator is advised to comply with the generally applicable safety at work regulations and those relating to use of the public highway!
- The implement may only be operated, maintained and repaired by such persons who have been made acquainted with it and who have been advised about the dangers!
- When driving on public roads with a raised machine the lifting control lever should be locked against unintentional lowering!
- The fitted warning and advisory plates give important information for safe operation; adhering to these increases your own security!
- When using public roads adhere to applicable traffic rules!
- The operator should familiarise him-/herself with all controls and their functions before starting work. During work could be too late!
- The clothing of the operator should fit tight. Avoid wearing any loose clothing!
- To avoid danger of fire keep the implement clean!
- Before beginning to drive check surroundings area (children)!
- Sitting or standing on the implement during operation or during transport is not permissible.
- Attach implements as advised and only to the stipulated positions!
- Special care should be taken when the implement is coupled to or uncoupled from the tractor.
- When coupling or uncoupling the implement bring the supporting stands into the corresponding position (standing safety)!
- Fit weights only to the fixing points provided for that purposes!
- Adhere to the maximum permissible axle loads, total weights and transport width!
- Fit and check transport gear, road lights and warning guards!
- The release ropes for quick coupler latches should hang freely and in the lowered position must not release the quick coupling by themselves.
- Never leave the driver's seat whilst in motion!
- Handling behaviour, steerability and braking are influenced by mounted implements, trailers and ballast weights. Check for sufficient steerability and braking!
- When driving round bends note the width of the machine and/or changing centre of gravity of the implement.
- Put implement into operation only when all guards are fixed in position!
- Never stay or allow anyone to stay within the operating area!
- Never stay in the turning and slew area of the implement!
- Do not operate any hydraulic controls while anybody is in the operating area!

- On all pivoting parts actuated by power assistance (e.g. hydraulics) exists danger of injury by bruising and crushing!
- Before leaving the tractor lower the machine to the ground. Apply the parking brake, stop the engine and remove the ignition key!
- Do not allow anybody between the tractor and implement if the parking brakes are not applied!

### **Attached implements**

- Before mounting or dismounting implements on/from the three-point linkage, move the raise / lower control to the position at which accidental raising or lowering cannot take place!
- In the case of three-point linkage mounting, ensure that the tractor balls and the mounting pins of the implement are of the same category!
- There is the risk of injury from pinch and shear points in the three-point linkage area!
- When operating the external lift controls for the three-point linkage, do not stand between the tractor and implement!
- Always ensure sufficient lateral limitation for the three-point linkage of the tractor in the transport position of the implement!
- When driving on roads with the implement raised, the raise/lower control must be locked to prevent lowering!

### **Maintenance**

- Repair-, maintenance- and cleaning operations as well as adjustments and remedy of function faults should principally be conducted with engine stopped and brakes applied. Remove ignition key!
- Check and tighten nuts and bolts regularly!
- When conducting maintenance work on a lifted implement always place suitable supports underneath!
- For replacing any tools with cutting edges always use suitable tools and gloves!
- Dispose of old oils, grease and filters as prescribed by law.
- Before working on the electric gear disconnect battery cables!
- When conducting electrical welding operations on the tractor or on the mounted implement remove cable from the generator and the battery!
- Any spare parts fitted must meet with the implement manufacturer's fixed technical standards! This is for example ensured by using genuine spare parts!
- To avoid danger of explosion only use nitrogen for filling up gas tanks!

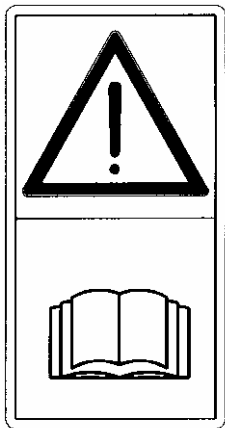
## 2 WARNING STICKERS

### 2.1 General Instructions

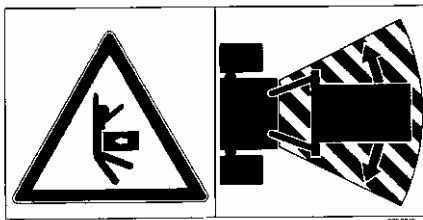
The LEMKEN Labrador is equipped with all features to ensure safe operation. Where potential danger areas of the implement can not be fully safeguarded, warning stickers are fitted which draw attention to these.

### 2.2 Meaning of the stickers

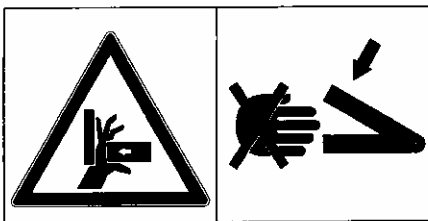
Familiarise with the meaning of the stickers. The following descriptions inform about them in detail.



**WARNING:** READ AND ADHERE TO THIS INSTRUCTION BOOK AND THESE "GENERAL HEALTH- AND SAFETY PRECAUTIONS", BEFORE PUTTING THE IMPLEMENT TO WORK!



**WARNING:** KEEP WELL CLEAR OF THE WORKING AND SWINGING AREA OF THE IMPLEMENT!



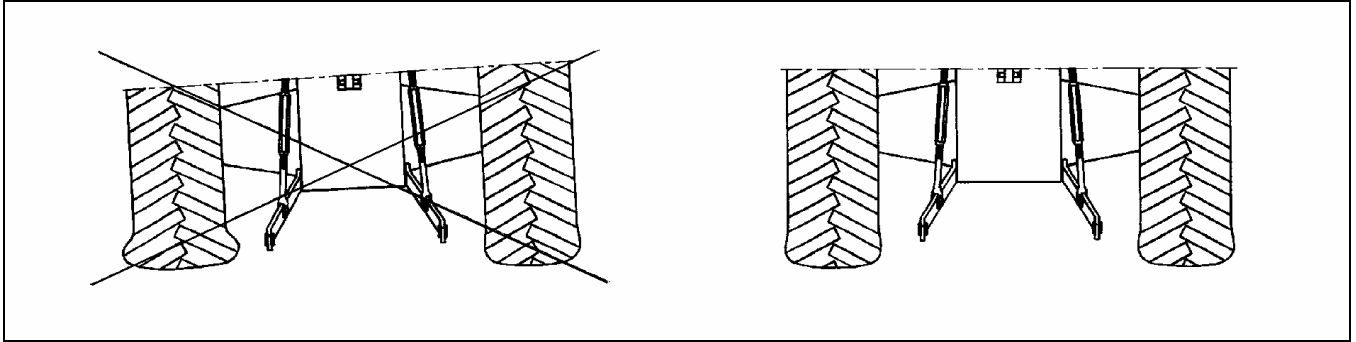
**WARNING:** PINCH POINT!



### 3 PREPARATION OF TRACTOR

#### 3.1 Tyres

Ensure that all tyres- especially the rear ones - are at identical pressures.



#### 3.2 Lift rods

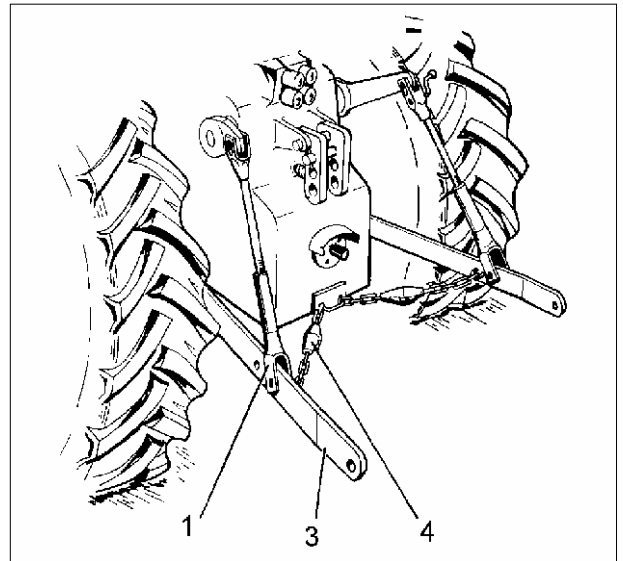
Adjust lift rods (1) of the three point linkage to equal length by means of the adjustment device. Where there are alternative positions for the lift rods on the lower links (3), use the rearmost position, in order to unload the tractor hydraulics.

#### 3.3 Check Chains or Sway Blocks

Check chains (4) or sway blocks MUST be adjusted so that the lower links (3) are free to move slightly sideways during work.

#### 3.4 Tractor Hydraulics

During work set tractor hydraulics to Position Control, when the Labrador is used without depth control wheels. In connection with depth control wheels the tractor hydraulics must be set to draft- or mixed control.



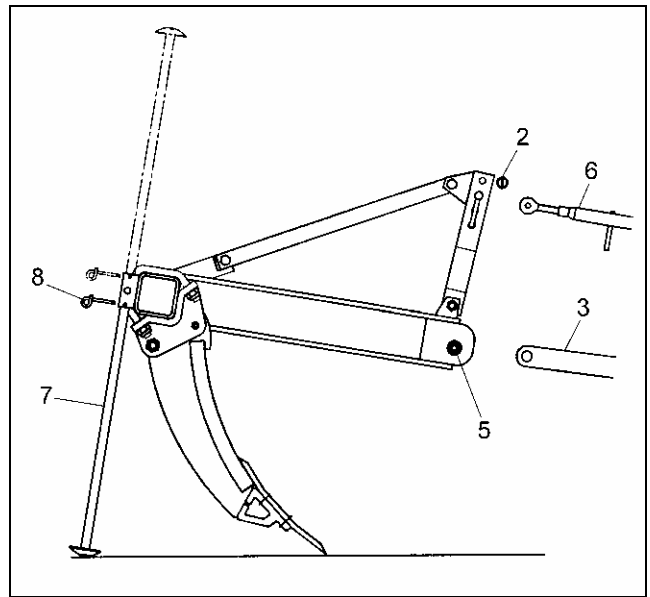
#### 3.5 Steerability of the tractor

Fit sufficient front weights in accordance with the recommendations of tractor manufacturer. If at least 20 % of the tractor weight is on the tractor front axle with raised implement, a safe steerability of the tractor is ensured, when driving carefully.

## 4 ATTACHING AND DETACHING THE PLOUGH

### 4.1 Attaching to the Tractor

- Set tractor hydraulics to 'Position Control'.
- Attach lower links (3) to the drawbar (5) and secure.
- Fit top link (6) to headstock and secure by means of securing clip (2)!
- Raise implement by means of the tractor rear lift, swing up stand (7) and secure by means of pin (8) and securing ring!



### 4.2 Detaching from the Tractor

- The Labrador must always be parked on firm and level ground.
- Before detaching set tractor hydraulics to 'Position Control'.
- With lifted implement swing down stand (7) and secure by pin (8).
- Lower implement!
- Remove top link (6) from headstock and then remove lower links (3) from the tractor.



- Read and adhere to the General Safety Instructions as well as to the Instructions 'Attached implement'!

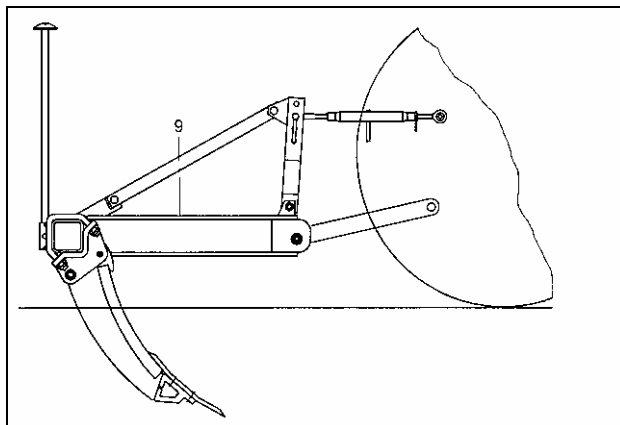
## 5 ADJUSTMENTS

### 5.1 Adjustment of the top link

In order to guide the Labrador safely during work, the top link (in working position) must be nearly parallel to the ground. Therefore the headstock is provided with several holes. To reach sufficient ground clearance during transport, it can be required to fit the top link a little more steeply.

By means of adjusting the top link length the leg position and therewith the penetration of the Labrador will be adapted to the conditions.

In basic adjustment the frame (9) should be parallel to the ground. If required, the penetration can be improved by means of shortening the top link. But this leg position requires a higher tractive force. A lengthening of the top link reduces the tractive force.

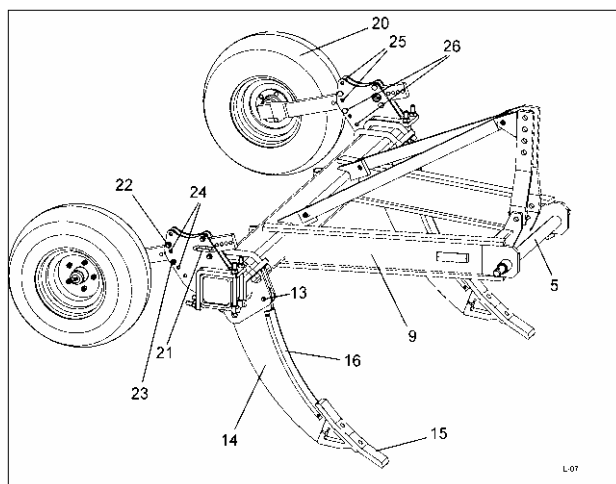


### 5.2 Adjustment of the working depth (without depth control wheels)

The working depth will be adjusted by means the tractor hydraulic, which generally must be set to "Position Control".

### 5.3 Adjustment of the working depth (with depth control wheels)

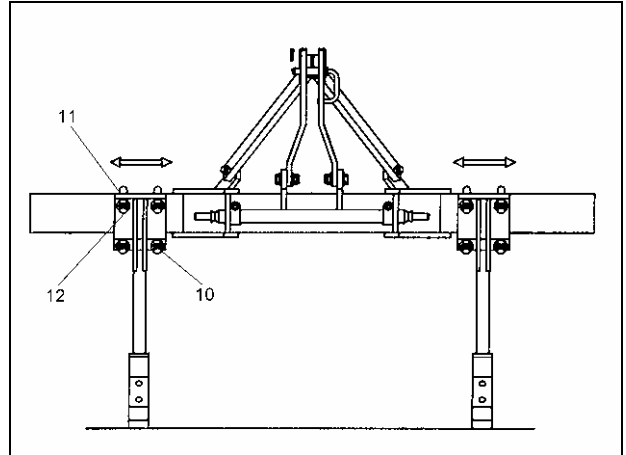
If the Labrador is equipped with depth control wheels (20), the working depth will be adjusted by means of pin (21). The tractor hydraulics must be set to draft control or mixed control, so that the depth control wheels are loaded with low pressure only. If the range of adjustments is not sufficiently, it can be increased by fitting the guiding bolts (22) and (23) into another pair of bores (24), (25) or (26).



## 5.4 Changing the leg distance

For the adaption to each tractor track the legs can be moved laterally on the frame. This will be done as follows:

- Lift implement by means of the tractor hydraulics and secure against unintentional lowering!
- Loosen nuts (10) of the U-bolts (11)!
- Displace brackets! It must be ensured that the leg brackets (12) will be displaced by the same amount, to avoid side draw!
- After that tighten nuts (10) of the U-bolts (11) carefully again. Therewith the top and the lower nuts must be tightened in several steps alternately. The nuts should be tightened with a tightening torque of 1000 Nm / 100 kpm.



- Read and adhere to the General Safety Instructions!

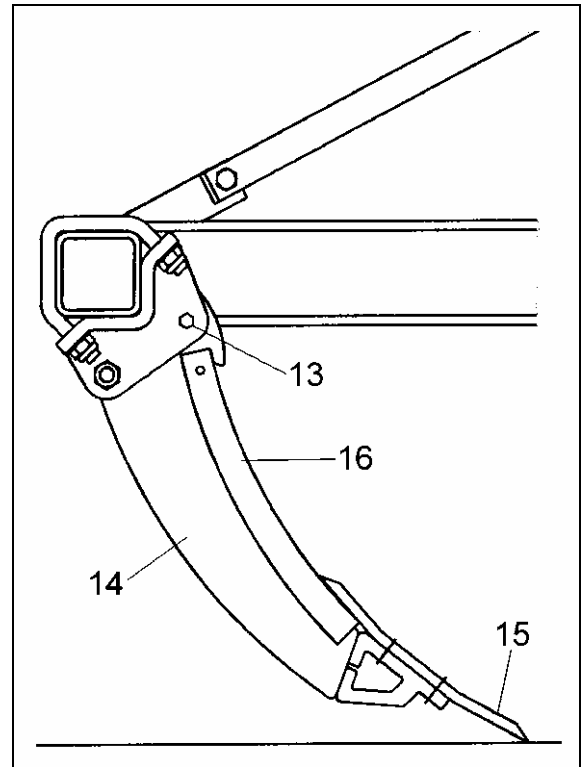
## 6 SHEARBOLT DEVICE

Each leg is provided with a shearbolt device (13). This shearbolt device protects frame, leg and share against overload. When a shearbolt is broken the following must be done:

- Lift implement and secure against unintentional lowering!
- Remove residuals of the shearbolts!
- Swing leg (14) backwards – Attention: Pinch points! – It is recommended to lower the implement and to drive backwards until the leg is in working position again!
- Fit new shearbolt!

It must be ensured that the shearbolt M20x75 LS 45x25 / 8.8 with the part No. 301 4602 will be used, as only this dimension and quality protects frame, leg and share against overload and prevents also a too early shearing.

For older models with a shearbolt diameter of 16 mm the shearbolt M16x80 LS 55x20 / 8.8 with the part No. 301 3920 must be used.



## 7 SHARES AND LEG PROTECTION

All shares (15) and also the leg protection (16) are reversible and changeable, that means that there is the possibility before a final exchange of the shares or the leg protection to reverse those ones so that the utilization of the parts will be extended considerably.

## 8 TYRES

The maximum or minimum allowed pressures are listed below.

**ATTENTION:** The air pressure must be checked regularly!

| Wheel      | profile    | Ply-rating<br>PR | min. pressure<br>(bar) | max. pressure<br>(bar) |
|------------|------------|------------------|------------------------|------------------------|
| 10.0/80-12 | Vredestein | 8                | 4,0                    | 2,0                    |

The stated maximum pressures must not be exceeded! The minimum pressures may also not be reduced, in order to prevent overwork of the tyres and thus damage to the tyres.



- Read and adhere to the General Safety Instructions<sup>1</sup>

## 9 TRANSPORT ON PUBLIC ROADS

The general traffic rules have to be adhered too!

The maximum allowed transport speed is 25 miles per hour. On bad roads the speed must be reduced accordingly.

## 10 TECHNICAL DATA

|              | No. of<br>tines | Working<br>depth in cm | Line distance<br>changeable from -> to | Weight in<br>kg |
|--------------|-----------------|------------------------|--|-----------------|
| Labrador 160 | 2               | 65                     | 100 – 225                              | 485             |
|              | 3               | 65                     | 50 – 112,5                             | 555             |

## **11 NOTES**

As the version of equipment is depending from the order, the equipment of your implement and its description concerned may deviate in some cases. To ensure a continuously updating of the technical features, we reserve the right to modify the design, equipment and technique.

## **12 NOISE, AIRBORNE SOUND**

The noise level of the Labrador 160 does not exceed 70 dB (A) during work.

## **13 PRODUCT REGISTRATION / GUARANTEE**

We would like to point out that the guarantee period starts, only when the completely filled-in and signed product registration has been returned to us .