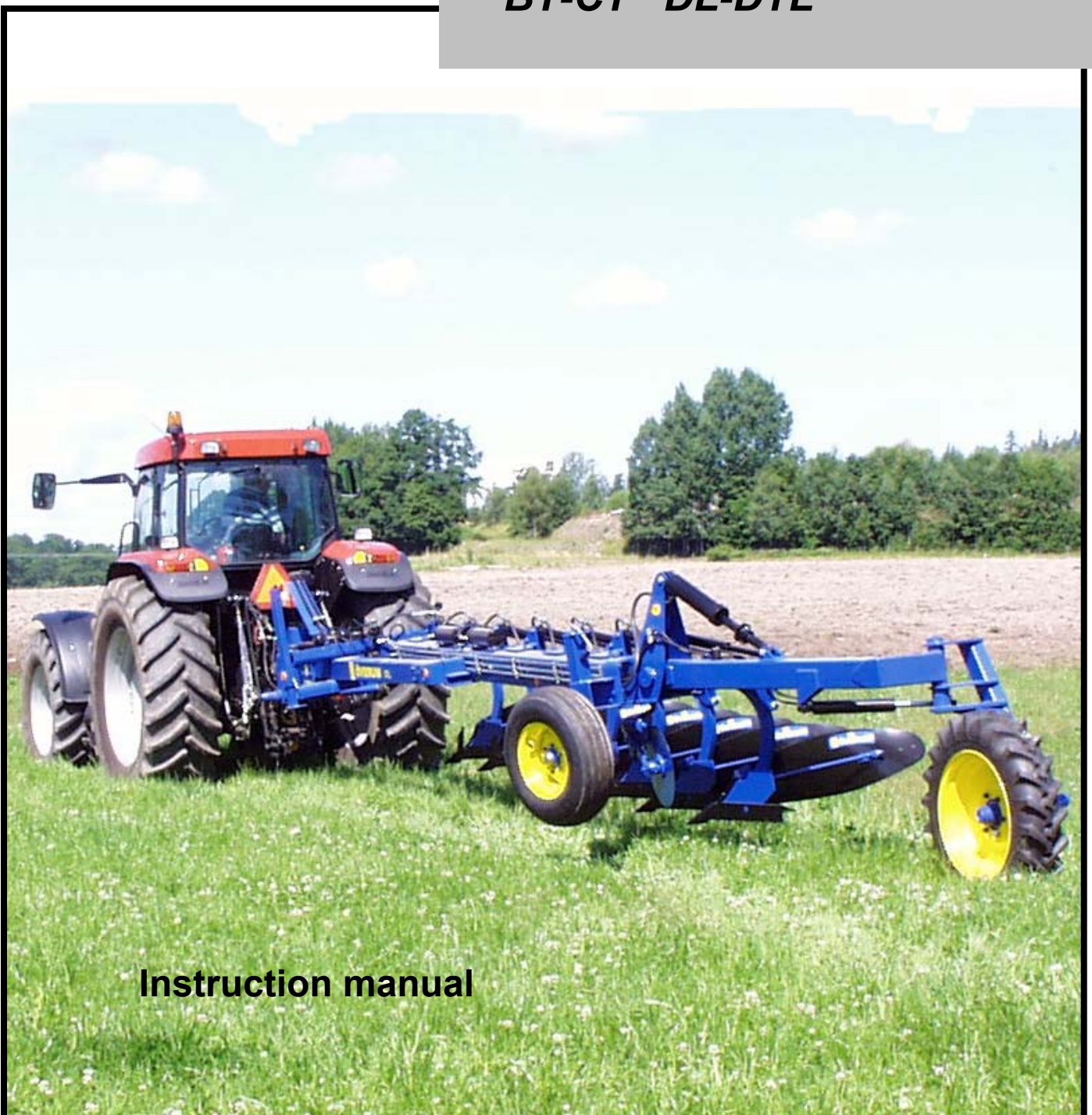




*Conventional ploughs
BT-CT DL-DTL*



Instruction manual

This instruction manual deals with Överum conventional ploughs

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Read these instructions carefully. If you follow the instructions given, YOU can expect good results along with a good economic return from YOUR choice of plough.

If carefully operated, adjusted and maintained, the plough will meet all reasonable demands made on it and will give YOU reliable service in years to come. Should YOU need further instructions, which are not included in this manual, or require the help of experienced service personnel, we advise YOU to contact one of our local representatives, which also will have spare parts in stock.

It has always been the ambition of **Överums Bruk** to constantly improve its products. Consequently, in the interest of product improvement, no specification is final or binding and we reserve the right to alter the design of new machine series and equipment without previous notice.



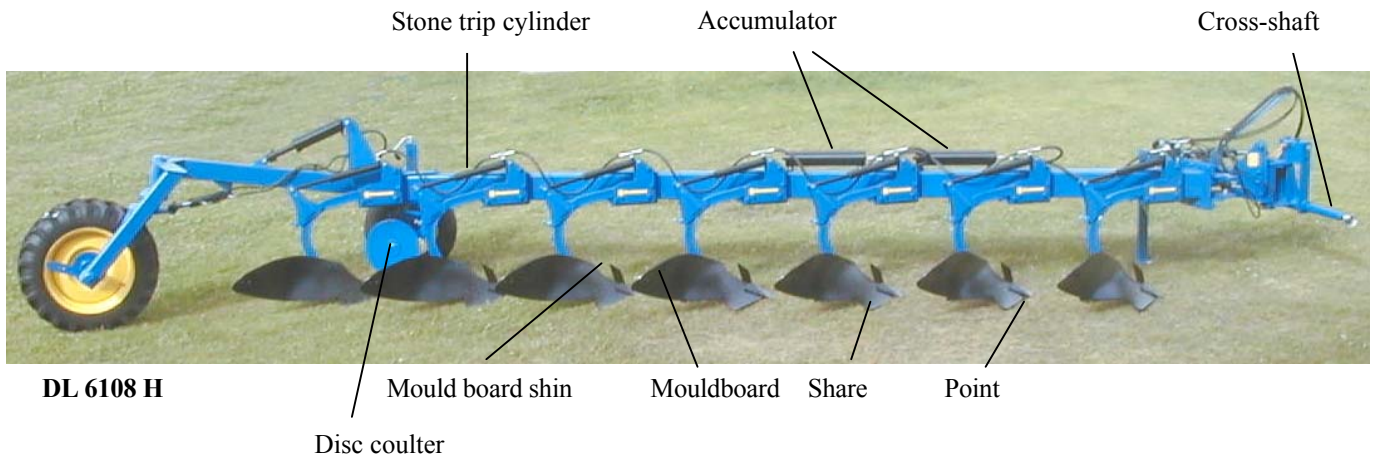
Överums Bruk AB
S-590 96 Överum
Telephone- Int. + 46 493 361 00

1. DESCRIPTION OF FUNCTION

The plough is designed only for ploughing of all types of soil, and for transport between the farm and the different fields.

The plough is to be attached to the three-point linkage at the rear of the tractor, with the hydraulic systems connected to the appropriate hydraulic outlets.

Description of the plough



BT 388



1.1 Plough identification

Type designations

BT	288 – 388	Mounted plough with working width adjustable in fixed steps
CT	390 – 488	Mounted plough with working width adjustable in fixed steps
DL	4108 – 8108	Semi-mounted plough with working width adjustable in fixed steps
DTL	4108 – 8118	Semi-mounted plough with hydraulically, stepless adjustment of working width.

Stone trip system F = fixed (shear bolt)
 G = mechanical G-type
 H = hydraulic

Body spacing 8 = 80 cm
 9 = 90 cm
 10 = 100 cm
 11 = 115 cm

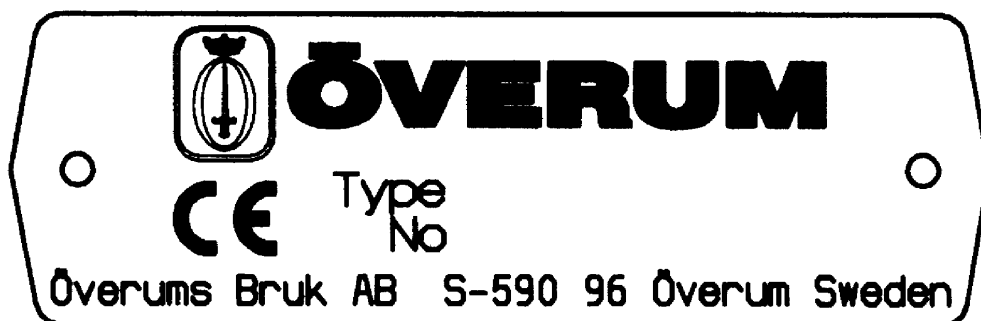
Number of bodies

Type



Serial number

Complete the sign below with the identification number / serial number of your plough.

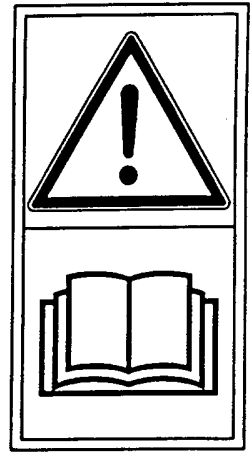


2. GENERAL SAFETY PRECAUTIONS WITH SAFETY SIGNS

Safety signs

Carefully follow the Operating Instructions and Safety Signs, which warns for risks when personal injuries can occur. Avoid accidents by always following the safety precautions.

Read "Operator's Manual". Safety signs with no text are used on these ploughs.



- § Ensure that no person is on, underneath or in the hazardous area of the plough during transport, ploughing.



- § Never work with components in the hydraulic stone release system unless the pressure is omitted.



- § Operator competence. The operator must be well acquainted with the different functions of the plough and be knowledgeable of how to operate it with safety
- § Ensure that the plough is locked with the correct locking pins onto the three-point linkage on the tractor.
- § Secure the lower link stabilizers on the tractor when the plough is transported on the road.
- § The brake pedals on the tractor must be locked together when driving on the road.
- § All hydraulic connections between tractor and plough must be made in accordance with the instructions given.
- § Never park the tractor with the plough in an uplifted position.
- § Always use the support leg when parking the plough.
- § Never attempt to clean or adjust the plough during operation.
- § Never touch the gas valve on the accumulator.
- § The plough must always be attached to the three-point linkage on the tractor when altering the working pressure in the hydraulic stone release system.
- § Adapt the ploughing speed to suit the ground conditions. **DRIVE CAREFULLY.**

Maximum transport speed 25 km/h.

- § These rules however do not exempt the operator from the responsibility to observe relevant statutory or other national regulations dealing with road safety or labour safety issues.

3. TECHNICAL DESCRIPTION

3.1 Checking the tractor prior to ploughing

Function of the three-point hitch

The design of the three-point linkage is based on the principle that the tractor and the plough should operate as one unit. This function is depending of the settings for the lower links and the top link. These components must therefore be maintained in a condition that enables them to be easily adjusted.

The lower link ball joints must be adjusted to the same height before the plough is mounted onto the tractor. Make sure that the lower links can be lowered approximately 20 cm below the cross shaft of the plough.

Hydraulics

Following external hydraulic outlets are required:

BT / CT	1 double-acting
DL	1 double-acting
DTL	1 single and 1 double-acting

If the plough is equipped with hydraulic front furrow adjustment cylinder one extra double acting hydraulic outlet is required.

Familiarize yourself with the hydraulic systems of the tractor.

Wheel adjustment - Track width

For ploughing purposes, track width is always measured between the inside walls on the tractor tyres.

The measurement between the inner walls of the front wheels must be at least equal to the inner measurement between the rear wheels, but may be up to 10 cm wider.

The distance between wheels must be symmetrical, relative to the centre line of the tractor.

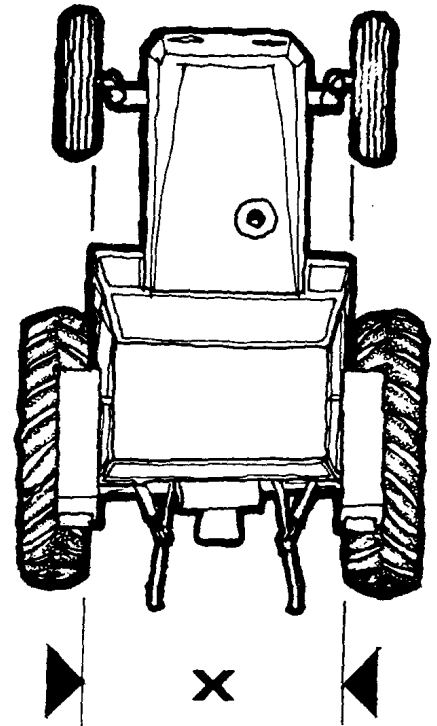
The following track widths are recommended: 1200 - 1500 mm

Ideal track width = 3 x the furrow width + 100-150 mm

(Example: 16" furrow width 3 x 400 + 125 = 1325 mm)

When ploughing with "wide tyres" the outside walls of the front and the rear tyres should be parallel.

The furrow widener knives should be mounted on the last plough body.



Tire pressures

Both tyre life and optimum traction are achieved by using the correct tyre pressure. Over-inflation will increase wheel slip. Make sure that both rear tyres are inflated to the same pressure.

Front ballast weights

The front of the tractor should be fitted with balance weights as required to maintain optimal traction and directional stability.

3.2 Preparation of the plough

Check that the quick-couplings on the hydraulic hoses are the same type as the quick-couplings on the tractor if required, fit the correct quick-couplings, to suit your tractor.

Check that the cross-shaft on the plough has the correct category to suit **your** tractor.

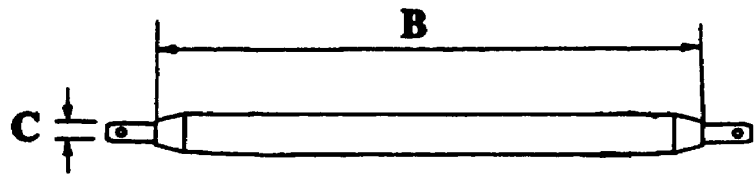
Cross shafts are available in different categories:

Cat. 2 means \varnothing 28 mm cross-shaft pins

Cat. 3 means \varnothing 36 mm cross-shaft pins

The length of the cross shaft is determined by the track widths of the tractor and the spacing of the lower links on the tractor's rear axle. When the spacing is > 550 mm on the tractor's rear axle, use the 965 mm long cross shaft.

Cat	B	C
2	825	\varnothing 28
2L	965	\varnothing 28
3	965	\varnothing 36



3.3 Mounting the plough onto the tractor

On semi-mounted ploughs the cross-shaft should be mounted slightly asymmetrically to the centre of the plough, i.e., the plough should be slightly further to the left on the cross-shaft. This is done in order to achieve an ideal line of draught between the tractor and the plough.

Ensure that the stabilizers of the lower links are correctly adjusted. In ploughing position the plough should be able to move slightly sideways (not being tensioned into place) and in transport position the plough should not be able to swing out and collide with the tractor wheels or fenders.

Cross-shaft position DL / DTL

On semi-mounted ploughs the cross-shaft can be mounted in two different height positions. The higher position gives more weight transfer to the rear of tractor and less load on the front axle of the tractor.

The most suitable position is chosen with regards to the weight on the front axle of the tractor and the tractor type two or four-wheel drive.



Adjustment of the stabilizer on semi-mounted ploughs

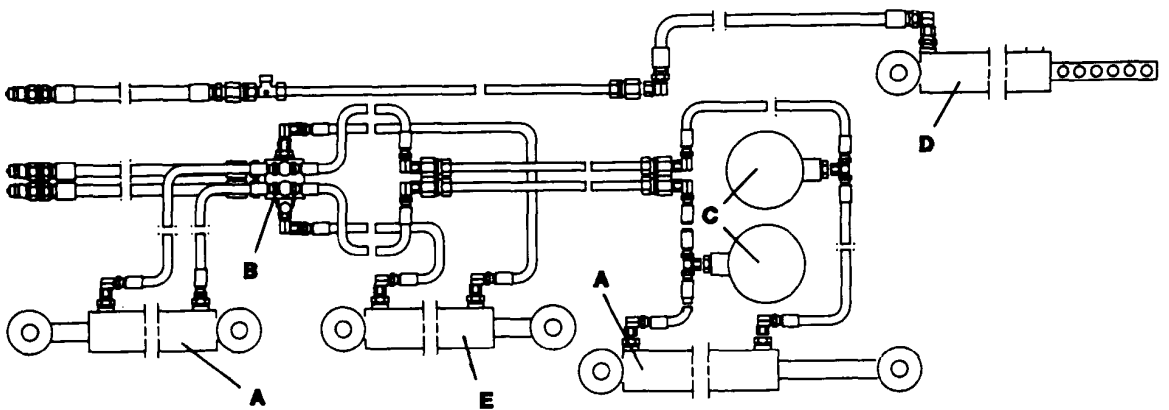
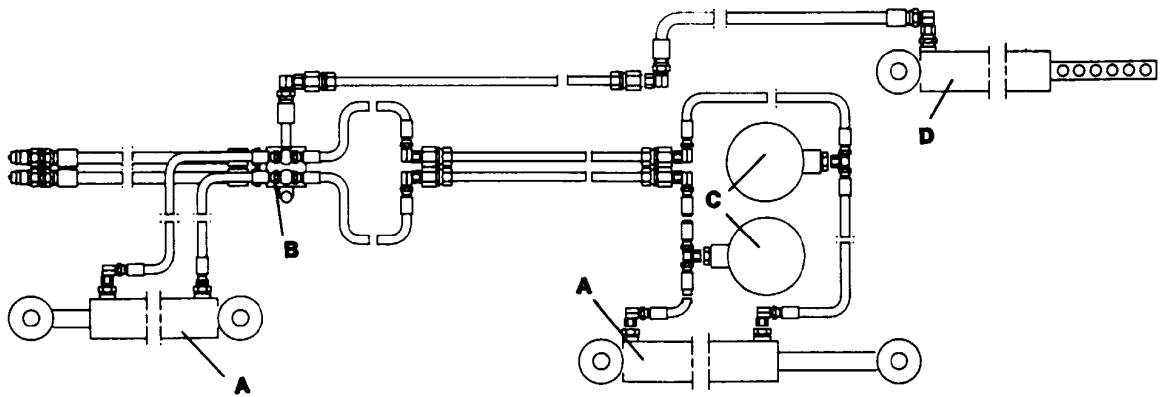
Adjust the length of the top link when the front of the plough is lifted to transport position and the rear of the plough lowered to the ground. Adjust with the top link so that the stabilizer chain is snug but not tight.

Important

Do a basic adjustment of the hydraulic steering.
See page 19



3.4 Hydraulic diagram semi-mounted ploughs



- A Steering cylinders
- B Diverter valve
- C Accumulators for the steering system
- D Rear wheel cylinder
- E Cylinder for adjustment of working width DTL

3.5 Checking the plough

- Check the tightness of all bolts and nuts
- Grease all lubrication points
- Check the tyre pressure
- Check that the desired working width is correctly set
- **MOULDBOARDS**
For best results, the protective paint on new mouldboards should be removed before using the plough for the first time. Use of a paint stripper is the easiest way of removing the paint. The paint can also be removed by using a scraper or a similar tool. Under no circumstances should the paint be burned off, since the necessary heat would ruin the temper of the steel. This also applies to any disc coulters and skim coulters used.
- Check the disc coulters, and skim coulters settings and adjust them so that the settings are identical.
- Raise the plough and fold up the support leg.
- **Always remember to re-tighten all nuts and bolts after about 3 hours of use.**

Stone trip device (H-system)

Check the working pressure by reading the pressure gauge. For suitable working pressure see page 15.

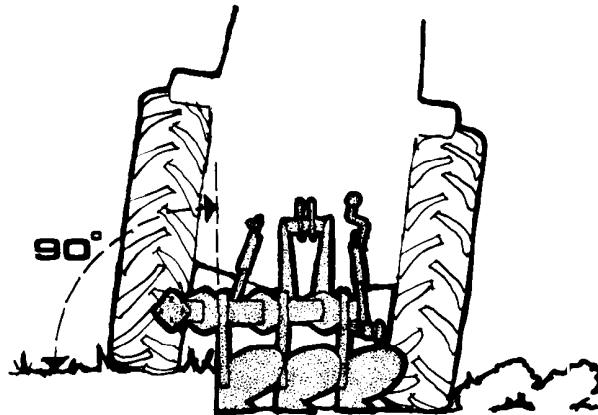
4. BASIC SETTINGS

4.1 Basic settings, mounted ploughs

The basic setting can be started when the desired ploughing depth has been reached and when the tractor wheels are running in a furrow with the same depth.

1. Vertical adjustments

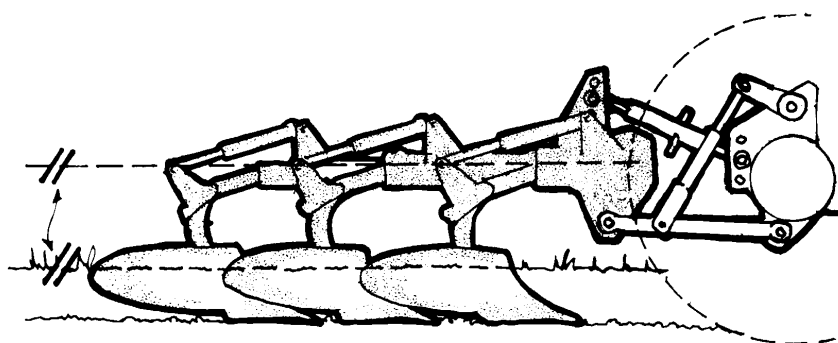
Ensure that the plough beams are at right-angle 90° to the ground. If necessary, make adjustments by using the right-hand lower link of the tractor. The angle is best seen when standing behind the plough.



2. Horizontal and depth adjustments

Mount the top link so that it is 5-10 cm higher on the plough than on the tractor when in working position. The top link bracket of the plough is adjustable laterally and has four height positions (two by turning the bracket 180°). The top link should always point straight in the driving direction.

Ensure that the front and rear plough bodies are ploughing at the same depth, the plough frame should be parallel with the ground. Adjust by altering the length of the top link.



The ploughing depth should be controlled by means of the tractors draught control in combination with the depth wheel of the plough. This provides a good weight transfer in hard pats of the fields and a good control of the working depth in the lighter soils.

3. First furrow width

Ensure that the lower links are loose so the plough can move freely.

For ploughs equipped with a hydraulic control of the first furrow width, the following applies: Place the hydraulic cylinder in a central position so that it can be adjusted in both directions. At the same time, check that the cross-shaft has the correct angle adjustment. The centre of the cross-shaft must be exactly aligned with the corresponding measure on the decal. Adjustments are made with the turnbuckle.

If the width of the first furrow is not correct, loosening the four nuts and move the cross-shaft sideways to achieve the correct width of the first furrow.

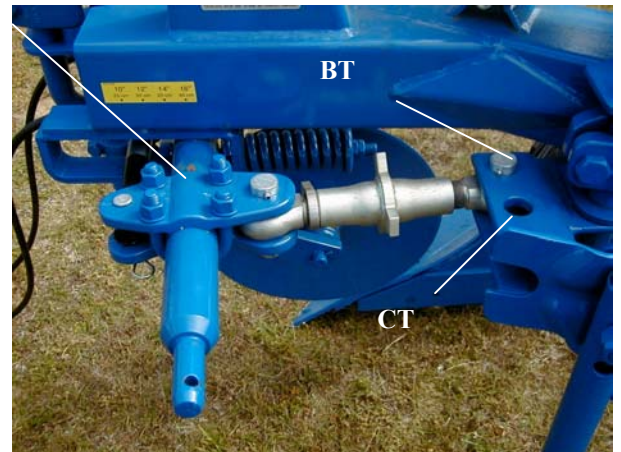
Drive forwards a few meters and checks the result. When the right width of the front furrow is reached, retighten the four nuts. The first furrow can now be made wider or narrower by means of the hydraulic cylinder, which moves the plough laterally on the cross-shaft.

On ploughs with mechanical control of cross-shaft, the basic adjustment of the cross-shaft is done in the same way. Subsequently, the width of the first furrow can be temporarily adjusted using the turnbuckle.

Lengthened turnbuckle gives wider first furrow

Shortened turnbuckle gives narrower first furrow

300mm = 12", 350mm = 14", 400mm = 16, 450mm = 18"

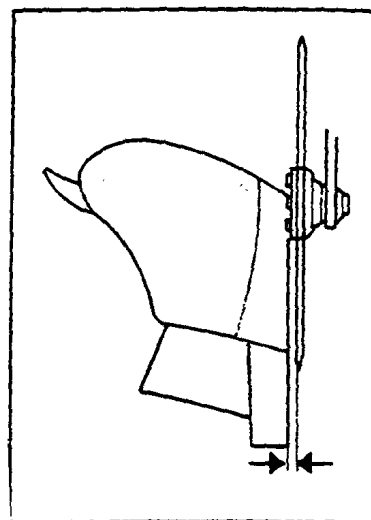
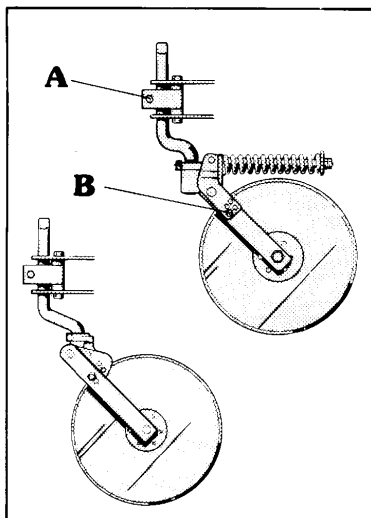


4. Disc coulters

The purpose of the disc coulters is to make a vertical cut, separating the furrow slices. There are two types of disc coulters, fixed and spring loaded. When ploughing in stony or very heavy soils, the spring-loaded type of disc coulters should be used. This is to protect the coulters and to ensure that they do not act like a support wheel, carrying the plough, which would prevent it from maintaining a correct ploughing depth.

Side and depth adjustment of disc coulters

The coulters should be set to produce a clean, continuous cut. Under normal conditions, the cut should be made 10 - 20 mm outside the landside, depending on type and condition of soil. The coulters are set individually by loosening the nut on bracket **A** and turning the coulters shank sideways. The disc coulters should never be set deeper in the ground than 1/3 of their diameter. Depth adjustment is carried out by fitting the coulters arm to different positions, **B**. This applies for both fixed and spring loaded disc coulters.



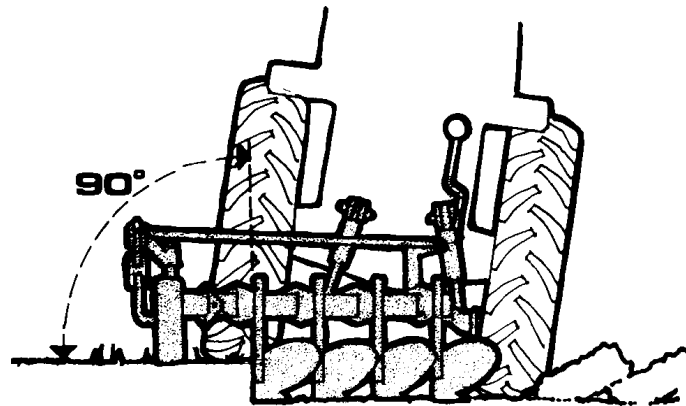
Make sure that all disc coulters on the plough are set to the same depth and are on an equal distance from the landsides on both left and right hand sides.

4.2 Basic settings, semi-mounted ploughs

The basic setting can be started when the desired ploughing depth has been reached and when the tractor wheels are running in a furrow with the same depth.

1. Vertical adjustments

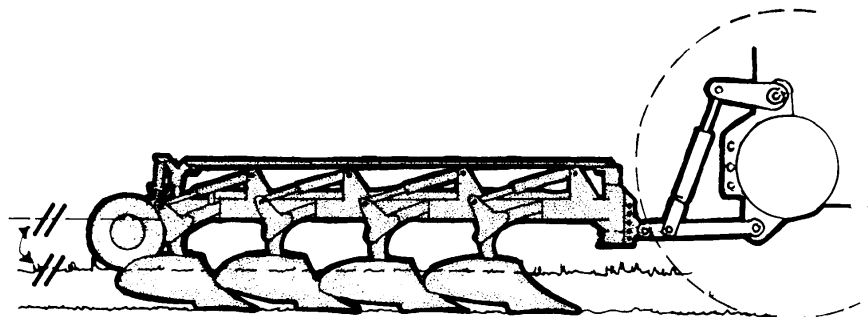
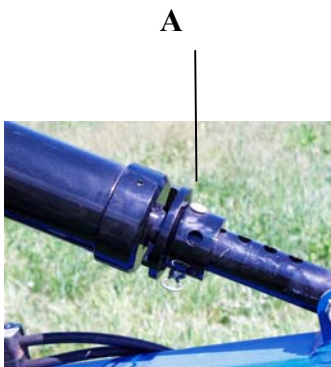
Ensure that the plough beams are at right-angle 90° to the ground. If necessary, make adjustments by using the right-hand lower link of the tractor. The angle is best seen when standing behind the plough.



2. Horizontal and depth adjustments

Adjust the depth of the plough so that all plough bodies are working at the same depth. The rear part of the plough is adjusted by the stop on the rear wheel cylinder A or (and) by using the gauge wheel, if the plough is equipped for in furrow ploughing.

The front part of the plough is adjusted by the lower links of the tractor, which is done by adjusting the control lever on the hydraulic system in the position where the required depth is obtained and the plough frame is parallel to the ground. The constant weight transfer of the plough is normally fully sufficient to avoid slipping of the tractor wheels.

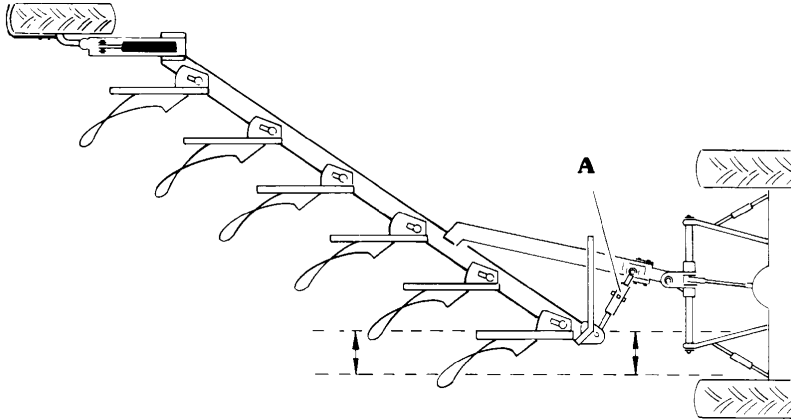


3. First furrow width

First, the tractor must be “balanced” so that it pulls straight ahead without any tendency to pull sideways, this is done by moving the plough on the cross shaft.

Normally, the plough is placed slightly to the left on the cross-shaft in relation to the direction of driving.

The stabilizers on the tractor must be loose. The tractor must be able to move freely in the ploughing position, yet not so much that it bump against the tyres when driving in transport.



Adjust the front plough body to the same working width as the other plough bodies by means of turnbuckle A. For control of the first furrow width a hydraulic cylinder is available as extra equipment.

4. Disc coulters

The purpose of the disc coulters is to make a vertical cut, separating the furrow slices. There are two types of disc coulters, fixed and spring loaded. When ploughing in stony or very heavy soils, the spring-loaded type of disc coulter should be used. This is to protect the coulters and to ensure that they do not act like a support wheel, carrying the plough, which would prevent it from maintaining a correct ploughing depth.

Side and depth adjustment of disc coulters

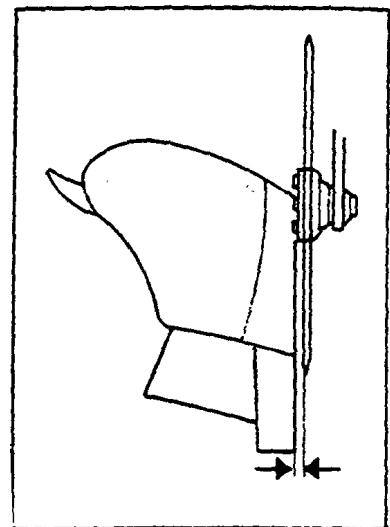
The coulters should be set to produce a clean, continuous cut. Under normal conditions, the cut should be made 10 - 20 mm outside the landside, depending on type and condition of soil. The coulters are set individually by loosening the nut on bracket and turning the coulter shank sideways. The disc coulters should never be set deeper in the ground than 1/3 of their diameter. Depth adjustment is carried out by fitting the coulter arm to different positions. This applies for both fixed and spring loaded disc coulters.



Side adjustments



Depth adjustments



Make sure that all disc coulters on the plough are set to the same depth and are on an equal distance from the landsides on both left and right hand sides.

4.3 Adjustment/Setting of skimming devices

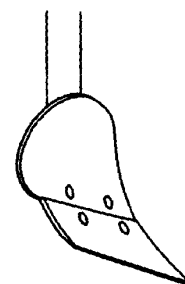
The basic purpose of the skimming devices is to cut off and turn down a corner of the surface layer with crop residues and weeds so that these are well buried. Properly used skimming devices give the best mechanical weed control. Four different types of skimming devices are available for this purpose.

All skim coulters are protected by a shear bolt Part no. 1652 03 76 00

1. Skim coulters EG

Skim coulters **EG** is used to advantage when good weed control is important and when ploughing grasslands. It works well in firmer soils, which produces a continuous furrow slice. The depth should not be set deeper than that a corner of the furrow slice is cut off and turned down. (Maximum 50 mm at the point).

When disc coulters are not mounted, the point of the skim coulters should be set to run about 10 - 20 mm outside the landside. When disc coulters are mounted, the skim coulters should run beside the disc coulters, with the points about 10 mm away from the disc.



2. Skim coulters F

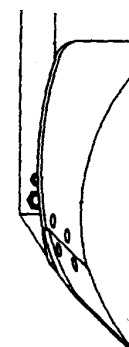
Recommended for skimming in cultivated soil. Works well together with fin coulters. The point of the **F**- skimmer should be set to cut approximately 10 - 20 mm outside the landside. The depth should be set so that the coulters share works in the uncultivated soil.



3. Manure skimmer M

Recommended for deeper skimming and heavy trash. The convex mouldboard allows the trash to go on both sides of the skim shank. Works well without disc coulters.

The point of the manure skimmer should be set to cut approximately 10 - 20 mm outside the landside.

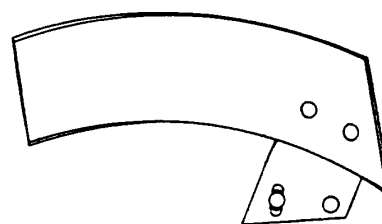


4. Coverboard

The coverboard does not affect the diagonal clearance of the plough. As a result, it can be used to advantage in loose soils and where considerable quantities of straw are present, but not in sticky soils.

The operation of the coverboard is dependent on the depth and speed of ploughing. The front of the coverboard should always be in contact with the mouldboard shank, whereas the outer section can be adjusted vertically to suit the ploughing depth.

NOTE: The coverboard should only cut off a small corner of the furrow slice.



The side adjustment of the skim coulters is done by the two adjustment screws **A** and **B**



5. STONE TRIP SYSTEMS

5.1 Shear bolt protection type (F)

All F type ploughs are protected by a shear bolt in each stay (part no. 1659 56 88 00).

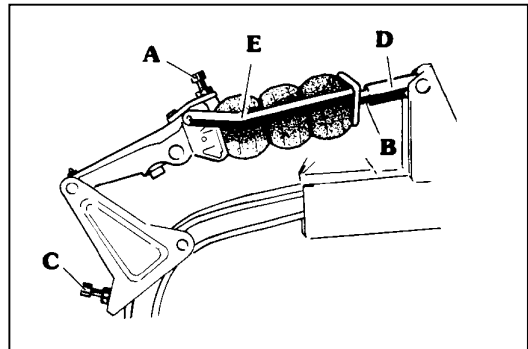
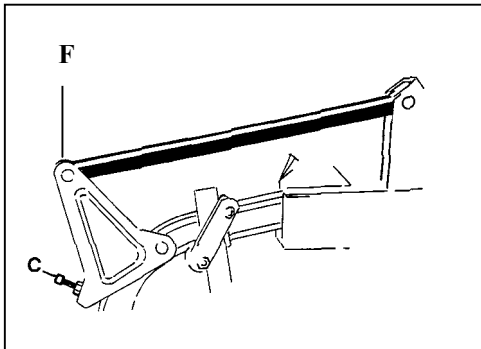
Always ensure that the correct bolt is used for replacement.

5.2 Mechanical, fully automatic type (G) for light to medium soils.

This trip is of knee-joint type and releases when exposed to loads exceeding the adjusted level. The release resistance is adjusted by loosening bolt C and then turning bolt A with maximally ¼ turn at a time. Turns anti-clockwise increase the release resistance. The tension of the trip between the attachment points is adjusted by tightening bolt C so that the plough leg is in contact with the supporting block in the beam housing.

When replacing rubber blocks etc., a tensioner mounted on plough wrench is used as follows.

- Dismantle attachment D
- Fit the tensioning sleeve over rod B
- Screw in the bolt tightly into the bottom of the hole in the end of rod B.
- Screw in the nut towards the tensioning sleeve until bracket E can be released.
- Screw out the nut until the rubber blocks has lost its tension.

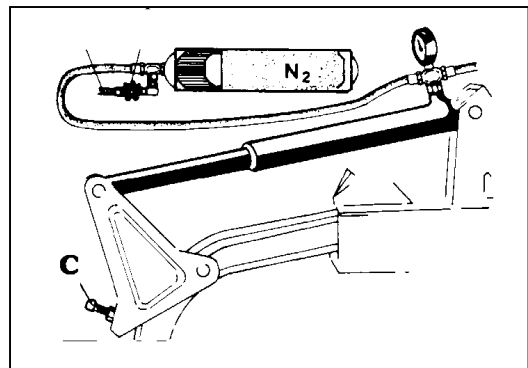


5.3 Hydraulic, fully automatic type (H)

The tripping mechanism consists of a trip cylinder for each plough bodies. The cylinders are connected in series with a gas/oil accumulator. The accumulator is of piston type, precharged with nitrogen gas (N²- gas). The trip cylinders, pressure hoses and the accumulator are pressurized with oil = working pressure as shown by the pressure gauge. When ploughing, the pressure of the nitrogen gas acts as a spring inside the accumulator giving the plough bodies fully automatic and individual tripping and resetting actions

Important: Use screw C to adjust the release cylinder so that it always is 10 mm shorter than its longest length.

The accumulator is pre-charged to 9 Mpa N²-gas pressure. The working pressure (oil pressure) on the pressure gauge is set according to the different soil conditions, so that the plough bodies not is released only for soil resistance. Use working pressure between: 10 - 14 MPa. (min –max)



Never attempt to detach any of the hydraulic connections when the system is pressurised!

5.4 Adjustment of operating pressure

Connect the filling hose to a single-acting hydraulic outlet on the tractor.

Open the valve and adjust the pressure to the required value using the tractor hydraulics, close the valve and repositioning the hose in its original position.

NOTE: The plough must be connected to the tractor when adjusting the pressure and when depressurizing the system. Always ensure maximum cleanliness when working with the hydraulic system.

On semi-mounted ploughs the accumulator is connected via the hose to the rear wheels of the plough. Consequently, the rear part of the plough will rise when the accumulator is being filled and will be lowered when the accumulator is being emptied.



The plough must be mounted to the tractor when adjusting the operating pressure.

5.5 Checking the accumulator

The accumulator precharge pressure should be checked at regular intervals with the help of the pressure gauge.

Connect the filling hose as described in "ADJUSTMENT OF WORKING PRESSURE", set the control lever on the tractor to the open return position and open the shut-off valve slightly. The working pressure will now drop slowly to a specific value and then fall rapidly to zero.

The pressure shown by the gauge at which the rapid drop occurs is the accumulator precharge pressure.

In a similar manner, the precharge pressure can be checked when filling. In this case, the reading will rise rapidly from 0 to a specific value, after which it will increase slowly. The pressure gauge reading at the end of the rapid rise in pressure is the accumulator precharge pressure.

SUMMARY: The pressure at which the gauge reading drops quickly when emptying the system and at which the reading stops rising quickly when filling the system, is the accumulator precharge pressure.

Should the pressure fall by more than 2 MPa (20 bar) below the precharge pressure specified on the accumulator, contact your local Overum dealer for advice.



*NEVER TAMPER WITH THE GAS FILLING VALVE!
NEVER ATTEMPT TO DISCONNECT A HYDRAULIC
CONNECTION WHILE THE SYSTEM IS PRESSURIZED*

6. ADJUSTMENT OF WORKING WIDTH

6.1 Adjustment of working width mounted BT – CT ploughs

The ploughs are assembled as standard on 16” working width

1. Alternating the beam housing position

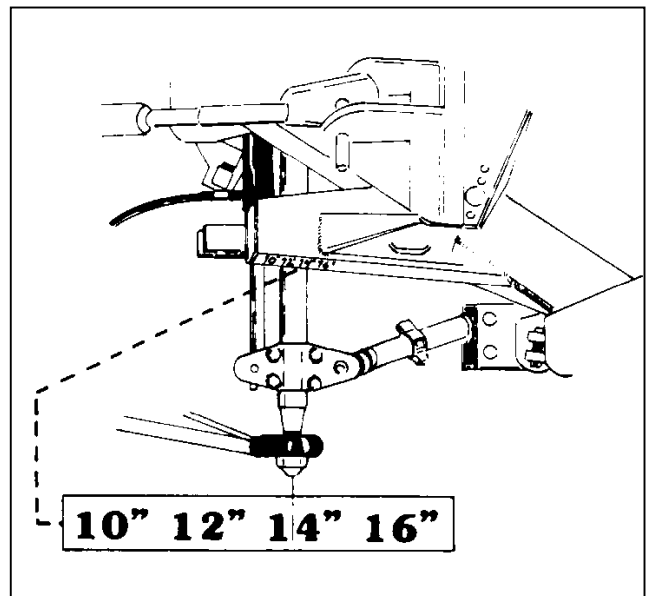
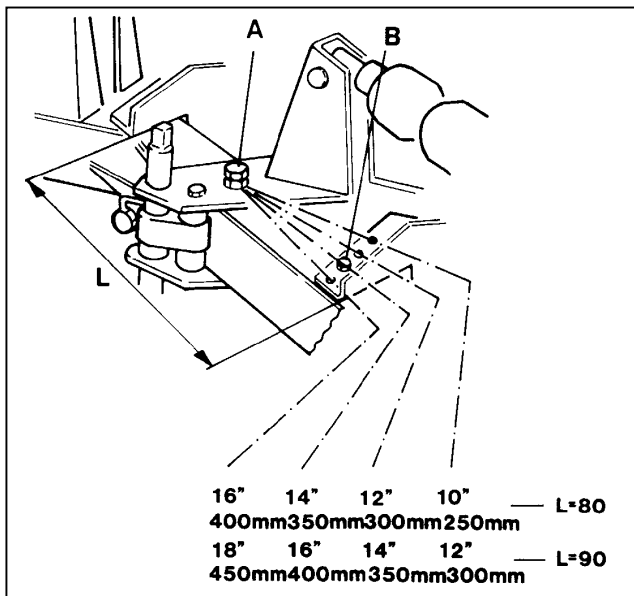
Each plough body component can swivel around the front bolt in the beam housing A. By placing rear bolt in one of the four different positions B you will alter the working (furrow) width. The table below shows you what working (furrow) widths you can achieve for the plough, note interbody clearance, L 80 or 90 cm. When bolts have been mounted in the desired hole, tighten it up.

For tightening torques see page 22.

NOTE! Remember to retighten the bolts after approx. 3 hours.

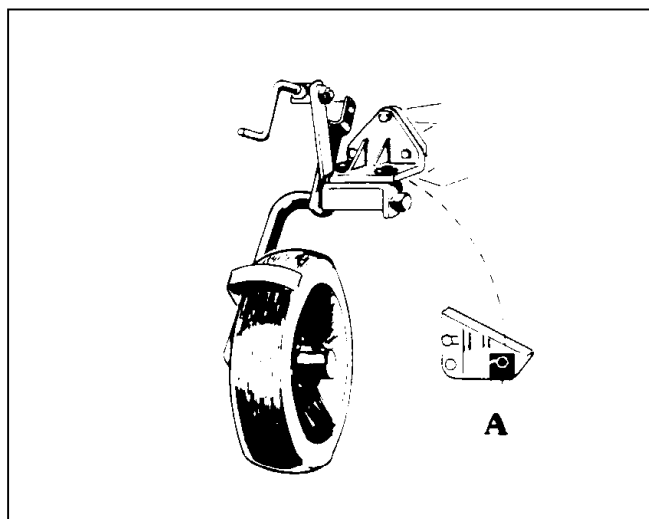
2. Adjust the cross shaft

The angle of the cross-shaft must be adjusted to correspond with the working width. This is done by using the turnbuckle on the left-hand side of the plough to line the centre of the cross-shaft up with the corresponding working width shown on the decal.



3. Land wheel

The angle of the land wheel must be adjusted so that it runs parallel with the landside of the last plough body. This is adjusted by altering the position of the “off centre” washer A.



6.2 Adjustment of working width semi-mounted DL ploughs

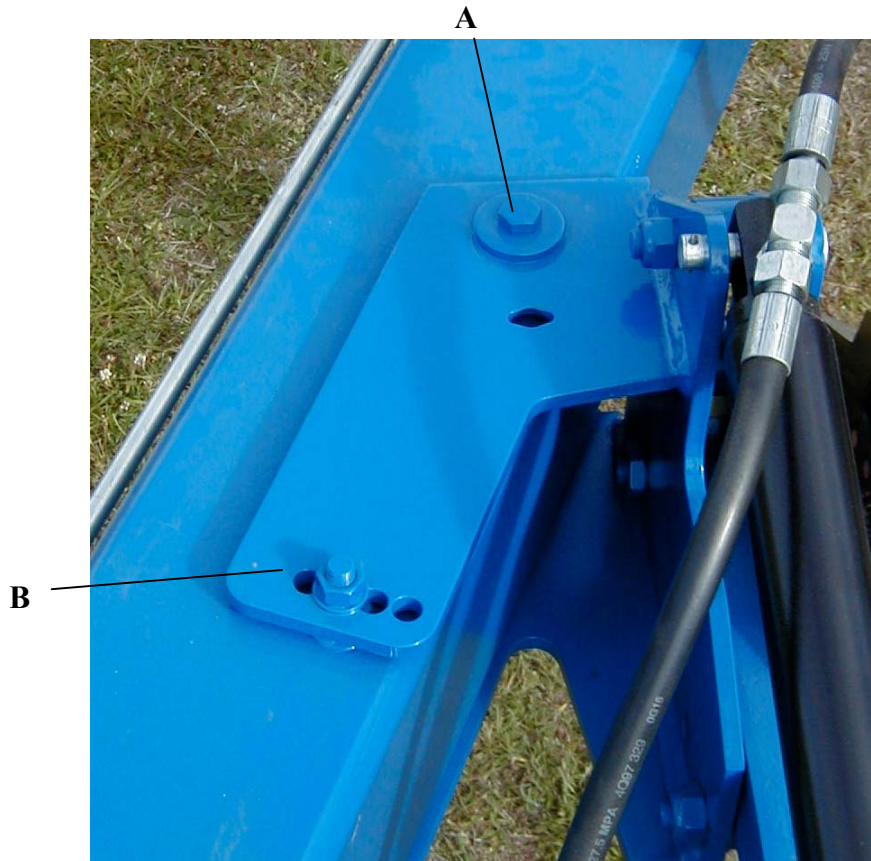
Stepwise adjustment

1. Alternating the beam housing position

The disc coultter shaft serves as the main axle for the attachment of the beam housing to main frame. The plough components are rotated around this axle **A** when adjusting the working width. Remove the rear bolt **B** and move the plough body to the desired working width, tighten it up.

For tightening torques see page 22

NOTE! Remember to retighten the bolts after approx. 3 hours.



Body spacing

100 cm 300mm (12"), 350mm (14"), 400mm (16"), 450mm (18")

115 cm 350mm (14"), 400mm (16"), 475mm (19"), 540mm (21")

2. First furrow width

Adjust the width of the first furrow to the same working width as the other plough bodies by using the turnbuckle or hydraulic cylinder.

3. Adjust the land wheel

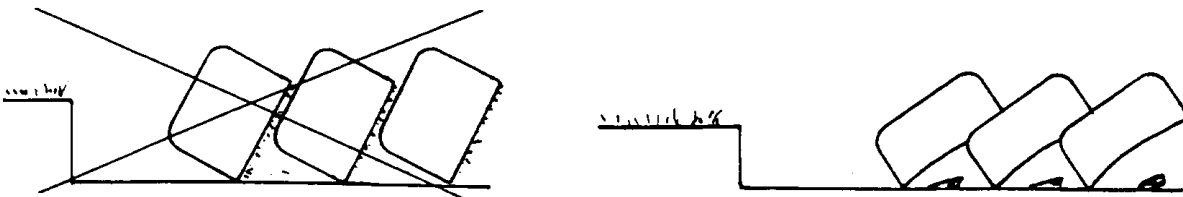
Adjust the land wheel so that it runs parallel with the landside of the last plough body, see page 16.

6.3 Adjustment of working width semi-mounted DTL ploughs

Step-less adjustment

The working width is controlled from the tractor via a double acting hydraulic outlet and adjustment cylinder on the plough. The indicator for working width on the plough will show the actual setting.

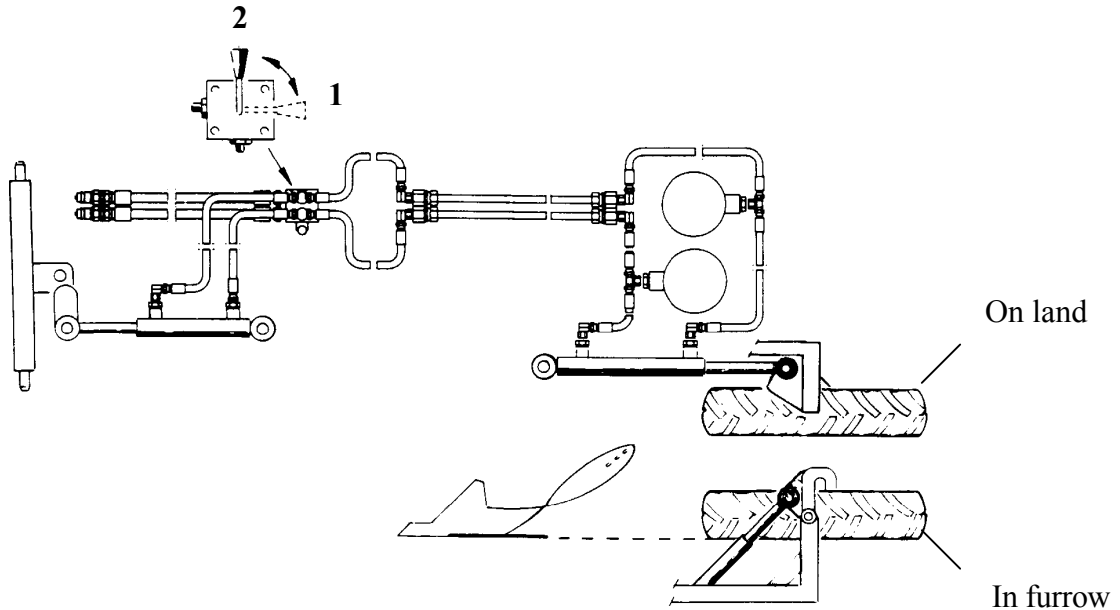
The working width should be in relation to the ploughing depth, i.e. max depth = $\frac{2}{3}$ of the working width. This gives a sufficient weight to the furrow slices and ploughing will have a good finish.



Note! The plough are equipped as standard with shares for 16'' ploughing. If ploughing is usually done with less than a 16'' furrow width, the shares should be modified or replaced with narrower shares. If the shares are too wide, the furrow slices is cut entirely off and can be pushed sideways and remain standing on edge.

When transporting the plough on roads, the working width must be set to its minimum position, so that the plough runs within the width of the tractor.

7. HYDRAULIC STEERING



Adjustment for ploughing

- Connect the quick-couplings to a double-acting hydraulic outlet on the tractor.
 - Place the control lever in position **1** straight backwards.
 - When the plough is driven straight forwards, the rear wheel is adjusted using the tractor hydraulics until it runs parallel with the landsides.
 - Place the control lever in position **2** vertically, this enables the cylinder for the rear wheel (DL) or working width (DTL) to be controlled.
- The system is protected against overload by two accumulators.

Adjustment to transport position DL ploughs

- Place the control lever in position **1** straight backwards.
- The rear wheel is adjusted by means of the tractor's hydraulic system so that the plough runs straight behind the tractor.
- Move the lever to position **2** vertically, the plough is ready for transport.



When driving on the road, the control lever must be placed in a vertical position for reasons of safety to ensure that the rear wheel cannot by mistake be steered using the external hydraulic system on the tractor.

8. SERVICE, MAINTENANCE, REPLACEMENT OF PARTS

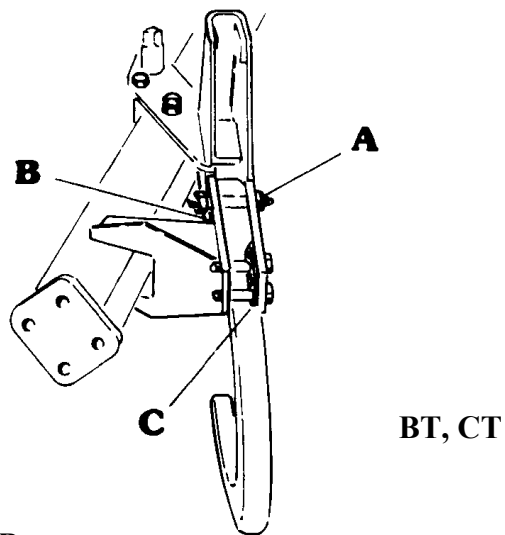
To ensure the plough a long life and to avoid unnecessary wear, observe the following instructions

8.1 Beam housings

If the plough beam shows sideways movements in the beam housing after some time of ploughing, tighten bolt **A** as follows.

- Loosen the locking nut on the inside of the beam housing.
- Tighten bolt **A**, which is threaded into plate **B** so that the leg is held firmly sideways but can still move up and down.
- Tighten the locking nut on the inside of the beam housing.
- If necessary to get tight, remove the shim spacer **C**.

Note! The beam housing point may be damaged if there is too much play in between the beam and the housing.

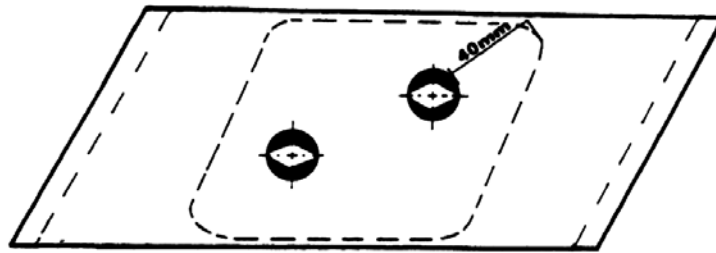


8.2 Replacement of wearing parts

All wearing parts should be replaced in good time in order to protect more vital parts, which will save you money. Always use original spare parts, which will ensure that you get wearing parts with good quality and which fit the plough. This is also a condition for validity of the warranty.

Share points

The share points are reversible and can be worn from two sides. In order to avoid excessive wear on the point support, the point must not be worn further down than the measurement given below and it must be turned when the material thickness is worn down to 6 mm. This in order to give the point and the support a longer life



Shares

The shares must be replaced before it has been worn down so far that the frog is damaged.

Mouldboards

When replacing mouldboards, ensure that the bolts are CROSS-TIGHTENED in order to avoid tension being built into the mouldboard, which may cause it to crack.

Mouldboard shin

When replacing the mouldboard shin follow the above-mentioned instruction for mouldboards.

Landsides

If the landsides are severely worn, the plough will break out towards the unploughed soil, which gives a poorer turning of the furrow slice and the plough will pull heavier.

Disc coulter blades

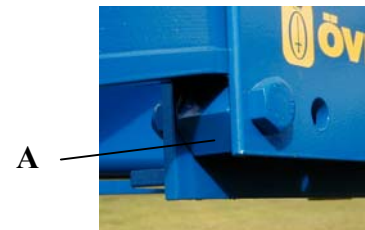
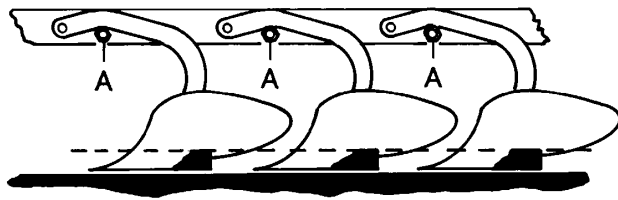
If a good cutting function should be maintained, the coulter blade should be replaced when 1/3 of the original diameter is worn off.



*Never work under a raised plough without securing it with a stand or similar, to avoid accidental lowering of the plough.
Never rely solely on the tractor hydraulic system.*

8.3 Mouldboards

Check that the mouldboards are in line. Adjust by turning the exentric block A

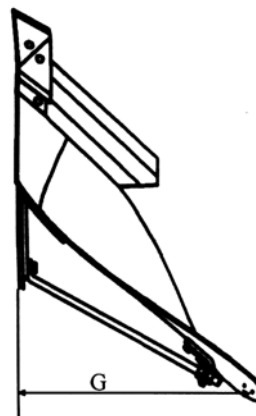
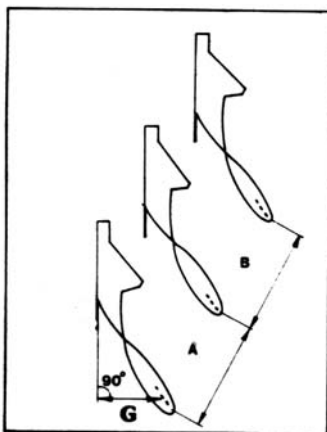


Working angle of the mouldboards

- Check the working angle of the mouldboard. The normal position is measured on the rear plough body between the extended inside line of the landside, horizontally out against the outermost hole in the mouldboard, see measurement G. Adjust the mouldboard stay if necessary.

- XU** Mouldboard normal measurement G = 625 mm
- XL** Mouldboard normal measurement G = 580 mm
- XS** Measurement to the outer end of the bottom slat = 635 mm
- Measurement to the outer end of the top slat = 505 mm

- Measure from the now adjusted rear, mouldboard forward and adjust the mouldboard stays if necessary, to the interbody space 800 mm, 900 mm or 1000 mm.



Tightening the bolts

When replacing bolts, ensure that the same quality bolts and nuts are used.

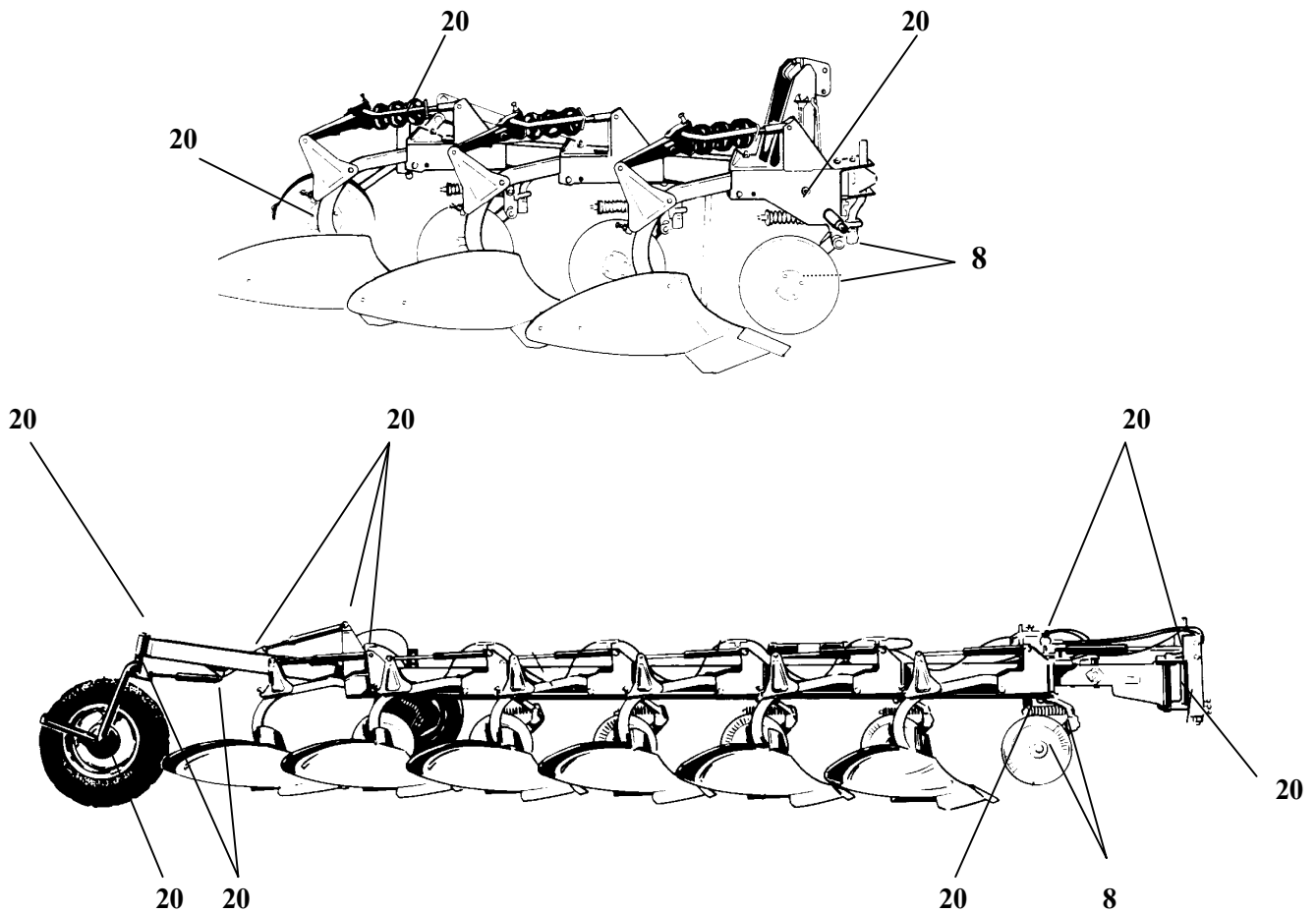
Tightening torques

Quality	Size	Torque	
8,8	M12	91 Nm	9,1 kpm
8,8	M16	222 Nm	22,2 kpm
8,8	M18	310 Nm	31,0 kpm
8,8	M20	434 Nm	43,4 kpm
8,8	M24	750 Nm	75,0 kpm
8,8	M30	1480 Nm	148,0 kpm
10,9	M12	128 Nm	12,8 kpm
10,9	M16	313 Nm	31,3 kpm
10,9	M20	610 Nm	61,0 kpm
12,9	M16	375 Nm	37,5 kpm
12,9	M20	732 Nm	73,2 kpm
12,9	M24	1270 Nm	127,0 kpm

8.4 Winter storage

- Clean the plough properly
- Ensure that all wearing parts are in good condition, replace if necessary (so that the plough is ready for the next season)
- Tighten all bolts and nuts
- Check the pre-charge pressure in the accumulator
- Lubricate all lubrication points with grease and oil
- Protect the mouldboards and all the shiny details by lubricating them with either oil, under coat protection or acid-free grease
- The stone trip system should be stored in a pressurized condition so that all trip cylinders are fully extended and filled with oil
- Check the hoses on the stone trip system (H)

8.5 Lubrication chart



8, 20 = Lubrication interval hours

9 EXTRA EQUIPMENT

Hydraulic cylinder for adjusting the width of the first furrow.

Hydraulic adjustment of the first furrow is useful when different soil types and lateral slopes occur in the field and which must be compensated for.



BT, CT

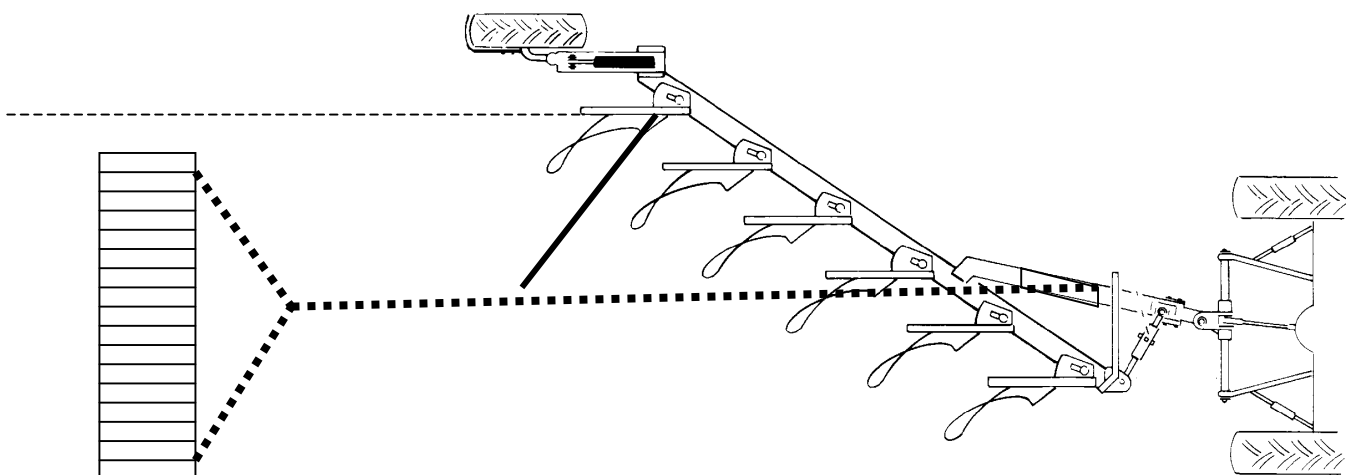


DL, DTL

Towing arm for furrow press DL DTL

Attach the towing tower on the draw frame. The arm that holds the towing chain are mounted on the rear beam housing.

Important: The height of the outer end of the arm should never be set so that there are vertical pressure on the arm during ploughing.



10 USEFUL ADVICE

When you have completed a careful and accurate adjustment of your plough so that it works well and gives a good ploughing result, make a note of the following important measurements.

Length of top link

Length of right-hand lift rod

Överums Bruk AB , S-590 96 Överum

Telephone: Int+46 493 36100

Telefax: Int+46 493 30800

Web adress <http://www.overums-bruk.se>

E-mail: sales@overums-bruk.se

1656 80 10 32

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