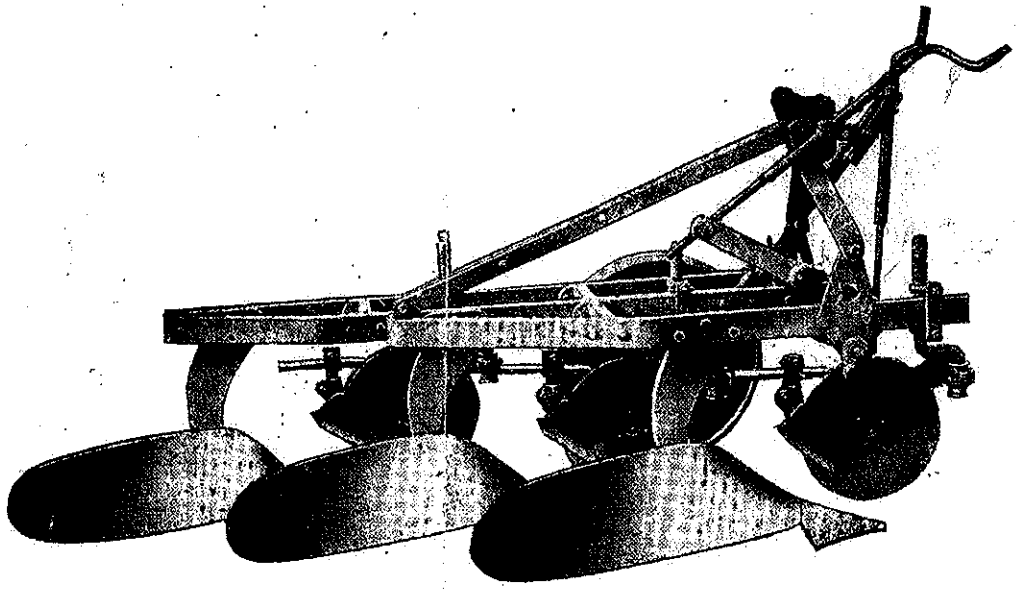
Publication 17694H(I)

INSTRUCTIONS
FOR ASSEMBLING AND WORKING

FR

TS.59J & TS.59M
MOUNTED PLOUGHS



WITH ILLUSTRATED LIST OF PARTS

MANUFACTURED BY

RANSOMES SIMS & JEFFERIES LTD.

ORWELL WORKS IPSWICH ENGLAND

PRICE 3/-

SP E 585. Printed in England

Instructions for Assembling

Remove the parts from the case and assemble in the following order:—

Place the main frame upside down on the ground.

Assemble the bodies and attach them to the legs. This should be followed by bolting the legs to the frame, according to the width of cut required. (See fig. 1 and fig. 10, page 5).

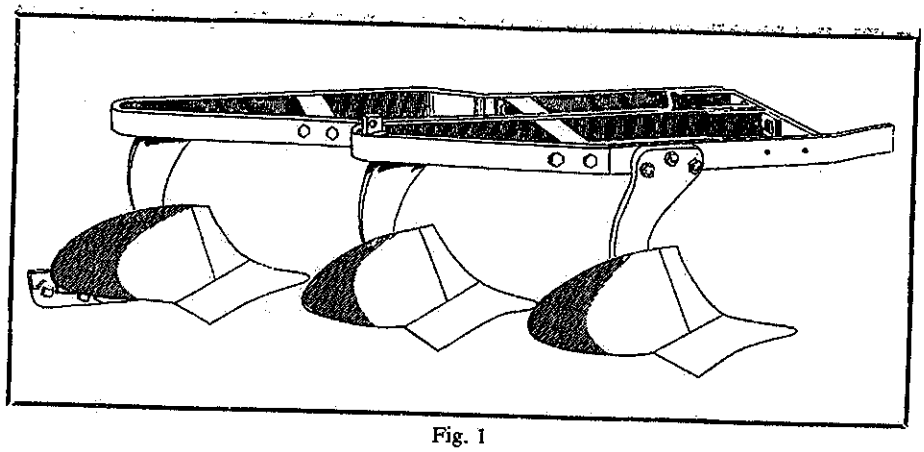


Fig. 1

It should be remembered that the body with the long landside must be placed at the rear.

Turn the frame over.

The bearings and cross shaft should now be attached to the frame with the arm for the width adjusting screw to the front.

Bolt the headstock stays with plates and the support for the width adjusting screw, complete with screw, to the bearings.

The swivel nut should now be removed from the screw and placed in the arm; then re-thread the screw into the swivel nut and replace the pin.

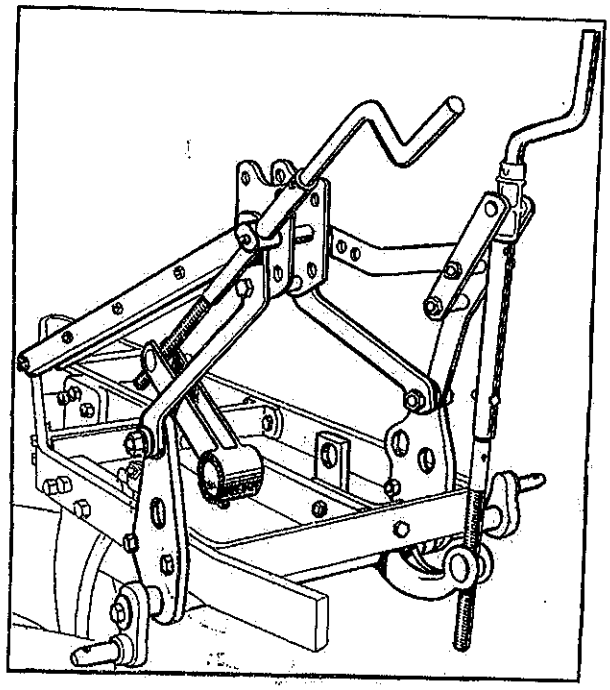


Fig. 2

Attach the rear headstock stays to the lug on the frame and between the headstock plates, the bolt for the latter also secures the inside support for the width adjusting screw.

The depth adjusting screw with swivel may now be attached to the headstock plates, (Fig. 2 illustrates this) and secured by a pin clip.

Slide the axle through the bearings and the depth regulating arm. The axle is located in

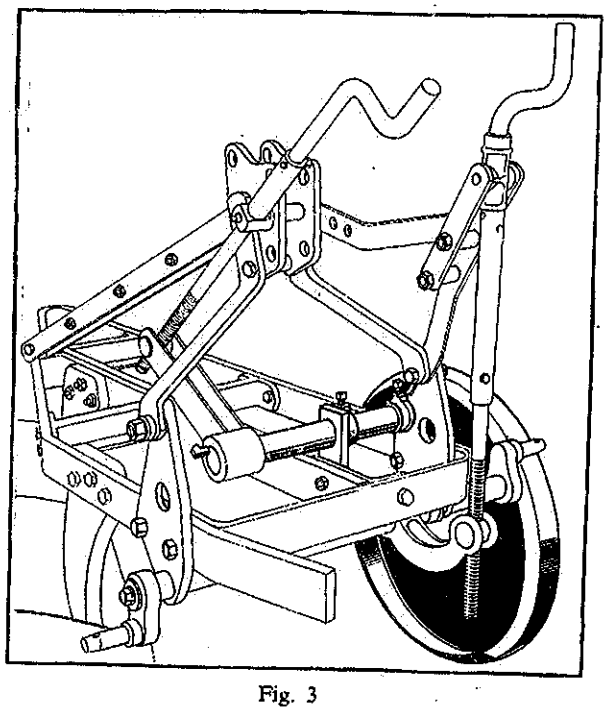


Fig. 3

position by the collars which are secured by setscrews.

The arm is located on the axle by a setscrew and key.

This should be followed by fitting the wheel to the axle. (Fig. 3.)

Attach the disc coulters with the skim attachments (if supplied) to the frame. The long coulter loops should be used for the middle coulter on the three furrow model and the rear coulter on the two furrow.

Preparing a New Plough

Before commencing work it is desirable to remove the paint from the mouldboards, shares and coulters, etc.

Lubrication. (Fig. 4).

Grease nipples are located as follows:—

(1) Swivel for depth adjusting screw.
(2) Swivel for width adjusting screw.
(3) Front disc coulter bearing.
(4) Middle disc coulter bearing.
(5) Rear disc coulter bearing.
(6) Depth wheel bush.

These nipples and the nozzle of the gun should be wiped clean before greasing.

All moving parts not fitted with grease nipples such as screws and cross-shaft bearings, should be oiled to ensure easy movement.

Setting the Cross-shaft. (Fig. 3, 5, 6, 7, 8 & 9).

Two positions are provided to enable the plough cross-shaft to be positioned either above or below the frame.

In conditions which permit maximum traction and afford good penetration, best results are

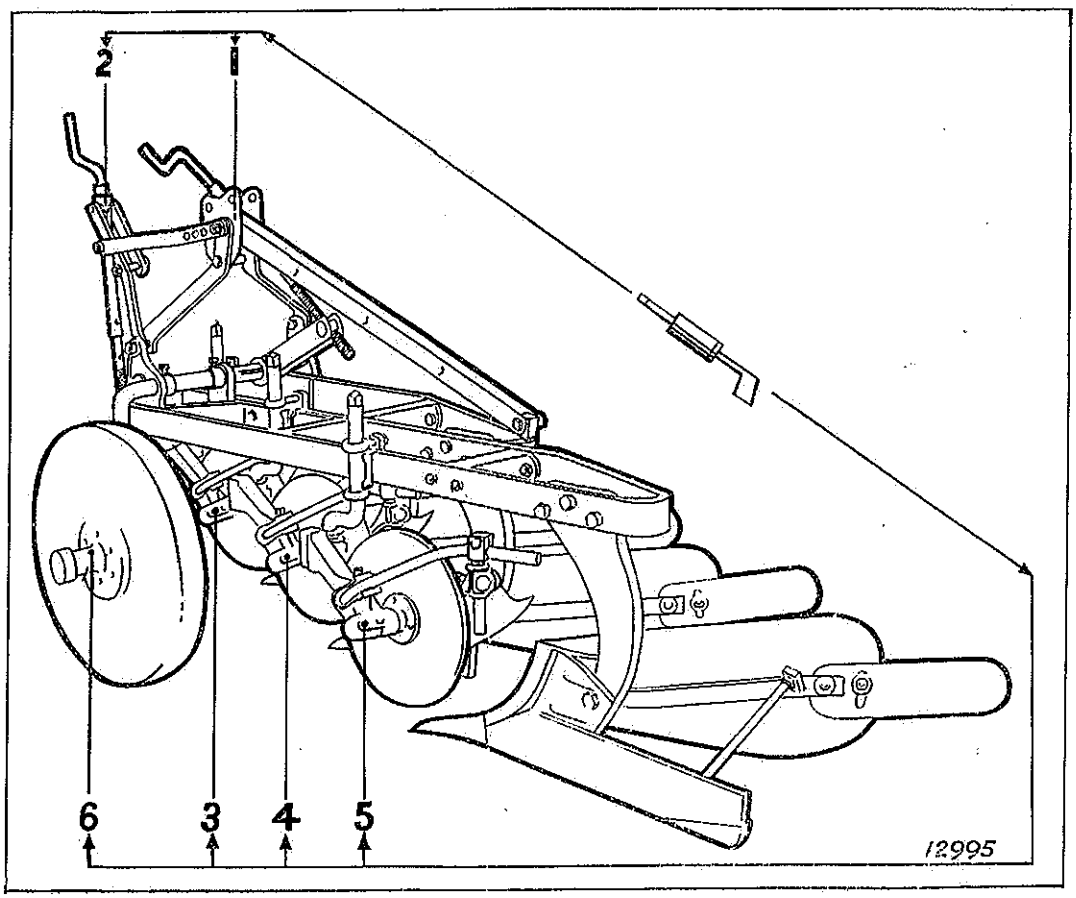


Fig. 4

obtained with the cross-shaft below the frame. Where penetration is difficult or where there is considerable surface growth, the cross-shaft can be positioned above the frame. When used below the frame the upper tractor link is usually placed in hole 'B' of the headstock plates. (Fig. 11). Hole 'C' is for use with the cross-shaft above the frame. As the width of cut of the front furrow is affected by the lateral position of the cross-shaft in relation to the plough frame, it is important to set it according to the following dimensions-:—

2¾-in. (6.9 cm.) for 10-in. (25.4 cm.) cut.
4½-in. (11.4 cm.) for 12-in. (30.4 cm.) cut.
6½-in. (16.5 cm.) for 14-in. (35.5 cm.) cut.

The figures are taken from the outer face of the cross-shaft bracket, on the furrow side, to the shoulder of the crank "P". (Fig. 5).

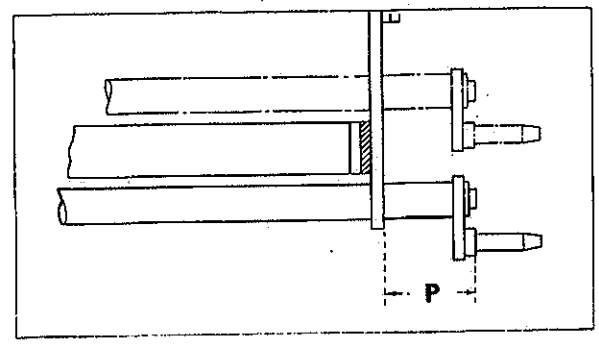


Fig. 5

Remember to re-set to these dimensions if the position of the cross-shaft is altered above or below the frame.

Always keep the thrust collars tight to ensure that the cross-shaft is held in the correct position. See that the thrust collar setscrews do not limit the travel of the screw.

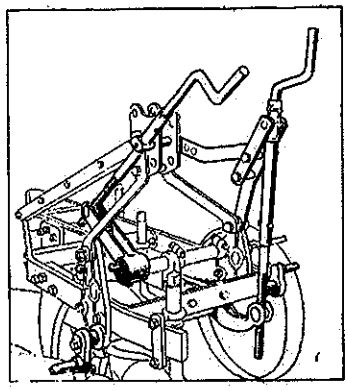
Equal adjustment should be allowed on the width adjusting screw connected to the cross-shaft. Check that when the cranks are vertical the screw is in the centre of its travel.

If this is not the case, slacken the setscrew and the clamp bolt securing the arm to the cross-shaft and rotate cross-shaft until the furrow side crank is vertically downwards.

Turn the screw until an equal number of threads show above and below the swivel in the arm. Secure the arm by the setscrew and the clamp bolt.

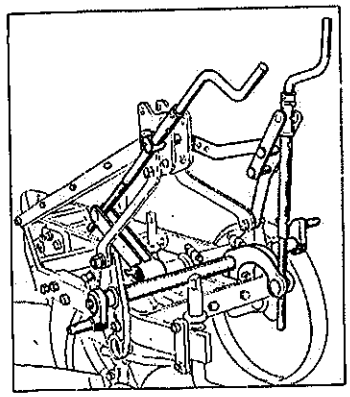
Setting Width of Cut.

Provision is made for altering the furrow widths.



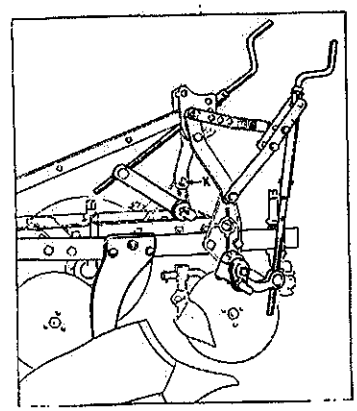
For 10-in. and 12-in. cut with cross shaft under the frame.

Fig 6



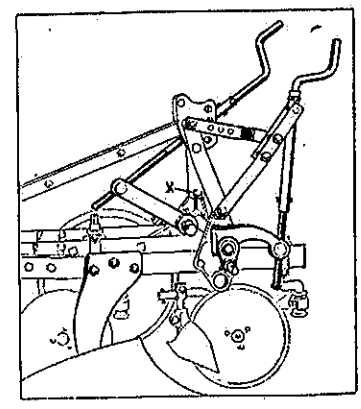
For 10-in. and 12-in. cut with cross-shaft above the frame.

Fig. 7



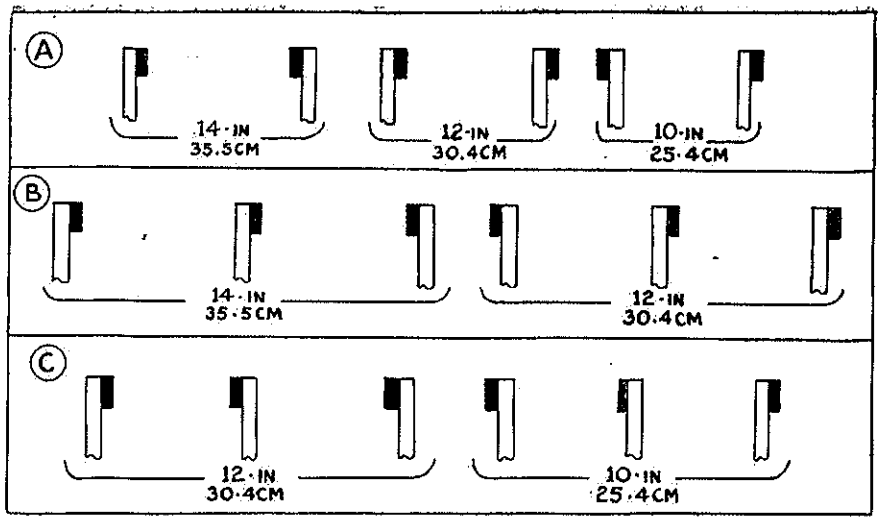
For 14-in. cut with cross-shaft under the frame.

Fig. 8



For 14-in. cut with cross-shaft above the frame.

Fig. 9



Key to Fig. 10

A. *2-furrow plough.*

B. *3-furrow plough 12-in. and 14-in.*

C. *3-furrow plough 10-in. and 12-in.*

The outlines in the diagram represent the legs, and the solids the frame.

Fig. 10

Reference to Fig. 10 as viewed from the rear of the plough will enable the operator to set the plough for various widths of cut.

See that the tractor wheels and plough cross-shaft are set at the right width.

Width and Depth Adjusting Screws.

Provision is made to alter the position of the width and depth adjusting screws if required, i.e., to have the width adjusting screw on the furrow side and the depth adjusting screw on the landside of the plough.

This is not essential but when ploughing 14-in. cut it brings the width adjusting screw into a more convenient position for operating from the tractor seat.

The depth screw, which can be fitted with a long or short handle, has two alternative fixing positions on the headstock "A". (Fig. 11).

The width adjusting screw has four fixing points; "F" as shown. (Fig. 12).

The handle of the screw is fitted with a sleeve.

In the screw 3 holes are provided. When the cross-shaft is below the frame, use holes "G" or "H" and when the cross-shaft is above the frame use hole "J".

For 10" and 12" cut the width adjusting screw is fitted on the land side and the depth adjusting screw on the furrow side.

For 14" cut the position of the screws can be changed over if desired to bring the width

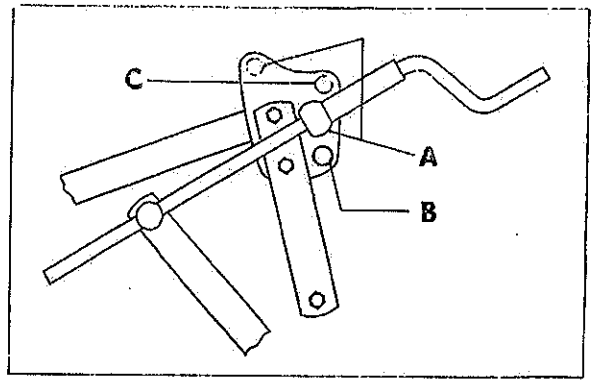


Fig. 11

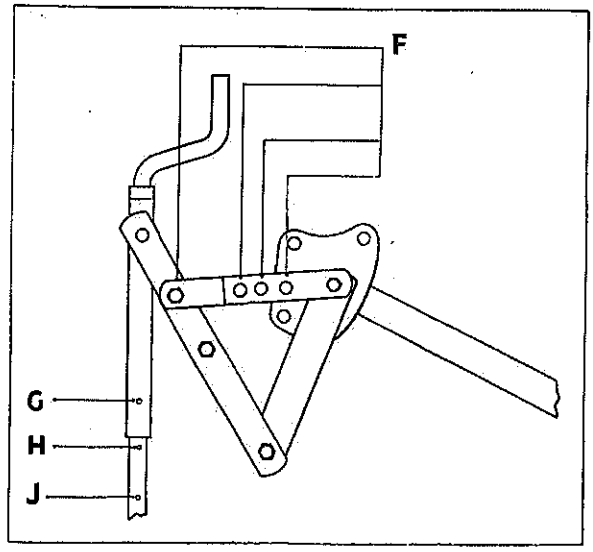


Fig. 12

adjusting screw into a more convenient position for the operator. With the screws in this position a $\frac{3}{8}$" thick spacing washer (supplied) is required for bolt X (Figs. 8 and 9) and the inner axle bearing must be moved to the land side of the main frame.

Attaching the Plough to the Tractor

Tractor Wheel Widths.

Before attaching the plough to the tractor, ensure that the tractor front and rear wheels are set equally and at the correct centres for the width of work.

These are as follows:—

For 11-in. by 36-in. tyres:

56-in. (1m42) centres for 10-in. (25.4 cm.) and 12-in. (30.4 cm.) work.

60-in. (1m52) centres for 14-in. (35.5 cm.) work.

For 14-in. by 30-in. tyres:

60-in. (1m52) centres for 10-in. (25.4 cm.) and 12-in. (30.4 cm.) work.

64-in. (1m62) centres for 14-in. (35.5 cm.) work.

Failure to do this will result in an incorrect size of front furrow.

Method of Attaching.

See that the tractor lift rods are in the "Rigid" position.

Move the tractor drawbar to one side of the quadrant.

Back the tractor square up to the plough and place the upper link between the headstock plates. Do not attach to the headstock.

Apply tractor brake.

Dismount from the tractor and fit the land-side lower link to the cross-shaft crank "K". (Fig 13). If necessary, alter the position of the crank by turning the width adjusting screw to assist with alignment.

Fit the furrow side lower link to the cross-shaft crank "L". (Fig. 13). To assist alignment raise or lower the link by means of the levelling box screw and adjust the position of the crank by turning the width adjusting screw.

The upper link should now be fitted to the headstock plates by means of its pin in the holes "C" or "B" (Fig 11) adjusting the length of the link as necessary.

See that all pins are secure by the cotters and the locking rings turned down.

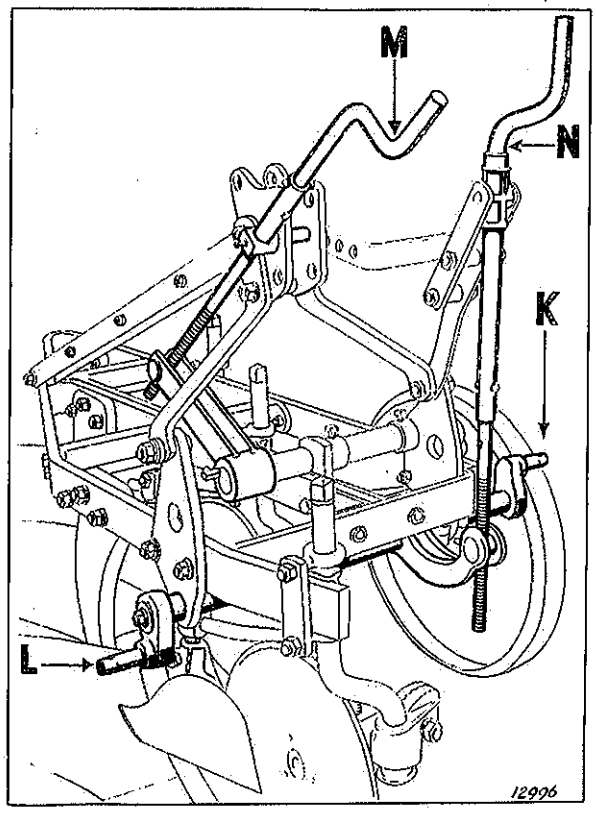


Fig. 13

Check Chains.

When provided these should be adjusted so that they are as slack as possible when the plough is at work, but at the same time short enough to prevent the plough or lower links fouling the tractor wheels or drawbar in the lifted position. As much swing as possible within the above limits should be allowed.

Testing the Lift.

Test the hydraulic lift and adjust it to allow the plough to lower gently into work. If the plough drops suddenly, damage to the shares is likely and for this reason the initial test should not be carried out on a hard surface. As a safety precaution, the operator should carry out this test seated on the tractor.

Details for adjusting the rate of fall or lift are contained in the Tractor Instruction Manual.

When in the fully raised position check for adequate clearance between the front share and the ground. Should it be necessary to adjust the lift rods, care should be taken not to shorten them too much as this will tend to hold the plough out of work.

Adjustments and Controls

Depth of Work.

The depth of work is controlled by the adjusting screw "M". (Fig 13). Turn the handle clock-wise to increase the depth and anti-clockwise to decrease the depth of ploughing.

Pitch.

The upper link controls the pitch of the complete plough. As a general rule the heel of the rear landside should lightly mark the bottom of the furrow.

Lengthen the link if there is no mark and shorten it if the heel presses too firmly and the plough takes a long time to enter at the ends.

Levelling.

An adjustment is provided in the furrowside lift rod of the tractor to enable the level of the plough to be altered so that the bodies work at an equal depth. After the opening runs have been made the correct adjustment can be made by watching the amount of earth passing along the mouldboards, which should be equal. An additional check is to match the front furrow slice with the slice against which it is turned.

Adjusting the Front Furrow Width.

Corrections of up to 1-in. can be made by turning the width adjusting screw "N" (Fig. 13) which rotates the cross-shaft in its bearings. Turn the handle anti-clockwise to increase and clockwise to decrease the front furrow width.

If corrections of more than 1-in. are necessary, check the following points:—

(1) Width between the tractor wheels. (See tractor wheel widths).
(2) The lateral position of the cross-shaft. (See Setting the Cross-shaft).
(3) Position of the legs. (See alteration to width of cut).

The adjusting screw may be used for corrections of more than 1-in. when straightening out slight deviations in a furrow, when making openings and finishes, or when ploughing on slopes.

Disc Coulters.

It is advisable to set these as accurately as possible before ploughing commences, but normally, final adjustment will need to be made after it is seen how they are operating.

In normal conditions, except when making openings or finishes, a disc coulter should be set with its centre above the point of the share and with a clearance of 1-in. to 2-in. between the share and the underside of the disc.

This distance may need increasing when ploughing deep as there will be a tendency for it to carry the plough and so prevent penetration as well as causing unnecessary wear to the casting and bearing.

Laterally ½-in. should be allowed between the landside of the share and disc when held parallel to the frame.

When set correctly the shin of the front edge of the mouldboard will follow in line with the cut made by the disc.

The coulter arm has a castor action on its stalk, the limit of movement either side being controlled by a stop collar. The stop should be adjusted so that the coulter arm has an equal amount of movement on either side of its working position.

See that the setscrew is secured after adjustment.

The disc can be tilted to give "overcut" or "undercut" by loosening the bolt which secures the adjusting socket for stalk to the single arm casting.

Ensure that the notches in the castings are properly engaged before tightening up the bolt.

Skim Attachments and Independent Skim Coulters.

Two types of skim coulters are available; those which are attached to the disc coulter arms and those attached by separate fastenings to the plough frame.

In both cases they should be set just deep enough to ensure that all rubbish is buried satisfactorily.

Avoid setting them at too abrupt an angle but allow the point to be as near to the disc as possible without actually touching.

Barpoint Bodies.

A series of recesses provided in the bar enable it to be adjusted forward to allow for wear.

It is important to ensure that the point never extends more than 5½-in. (14 cm) from the box of the share.

Recesses are provided in two sides of the bar to allow it to be turned over. This adjustment should be carried out regularly to ensure an even amount of wear to the point. Failure to carry this out will result in the point wearing out of true.

Always ensure that the setscrew which secures the barpoint is kept tight.

Conversion — Maintenance

To convert a 3-furrow plough to a 2-furrow.

A simple conversion, which can be carried out in the field, is as follows:—

(1) Remove the bolts securing the middle and rear legs to the frame and take away the middle leg.

(2) Bolt the rear leg (i.e., that with the body fitted with the long landside) to the frame where the middle leg was previously fitted.

Remove the disc coulter and skim assembly from the third beam.

Correct lubrication is vital whilst the plough is in work. (See under "Lubrication").

The disc coulter bearings should be greased twice a day.

A periodical inspection and tightening of the bolts will materially assist in maintaining the plough in good condition.

It is advisable for the coulters and mould-boards to be brushed over with oil to prevent rust after the day's work. Used engine or gear oil is suitable for this purpose.

To maintain the efficient working of the plough, worn parts should be removed and replaced at the first opportunity.

Always insist on genuine spares to ensure that the best results are obtained.

Instructions for Ordering Parts

BEFORE ORDERING

This parts list, which should be carefully preserved, is provided for your convenience, and to ensure that you order the correct parts for any particular model. Additional copies may be obtained price 3/- each.

Illustrations of parts must be taken as a guide only to identification. When a part is strengthened or otherwise redesigned, it is given a new mark, and it is not always possible to show this in the illustration. Reference should always be made to the list itself, where both old and new part numbers are given. Failure to do this may result in an incorrect part being supplied.

Castings are marked with their part numbers, and if the letter A, B, C or D, appears after the number, this signifies that the part has been strengthened, but is interchangeable with the old part.

Castings marked with Z, Y or X, are not interchangeable and when replacements are required the mark on the casting originally supplied must be stated.

Always give the part number and description of the part, together with the mark of the implement.

Bolts and nuts are not illustrated and all bolts are supplied without nuts.

All bolts are fitted with spring lock washers.

Unless a special nut is indicated in the list, standard nuts must be ordered to the following marks:—

UCN 105/A—Hex. nut for 5/16″ bolt.
UCN 106/A—Hex. nut for $\frac{3}{8}$″ bolt.
UCN 107/A—Hex. nut for 7/16″ bolt.
UCN 108/A—Hex. nut for $\frac{1}{2}$″ bolt.
UCN 110/A—Hex. nut for $\frac{5}{8}$″ bolt.
UCN 112/A—Hex. nut for $\frac{3}{4}$″ bolt.
UCN 114/A—Hex. nut for $\frac{7}{8}$″ bolt.

Note:—Parts marked † are not illustrated.
*Parts marked * are also supplied as part of an assembly.*

List of Parts

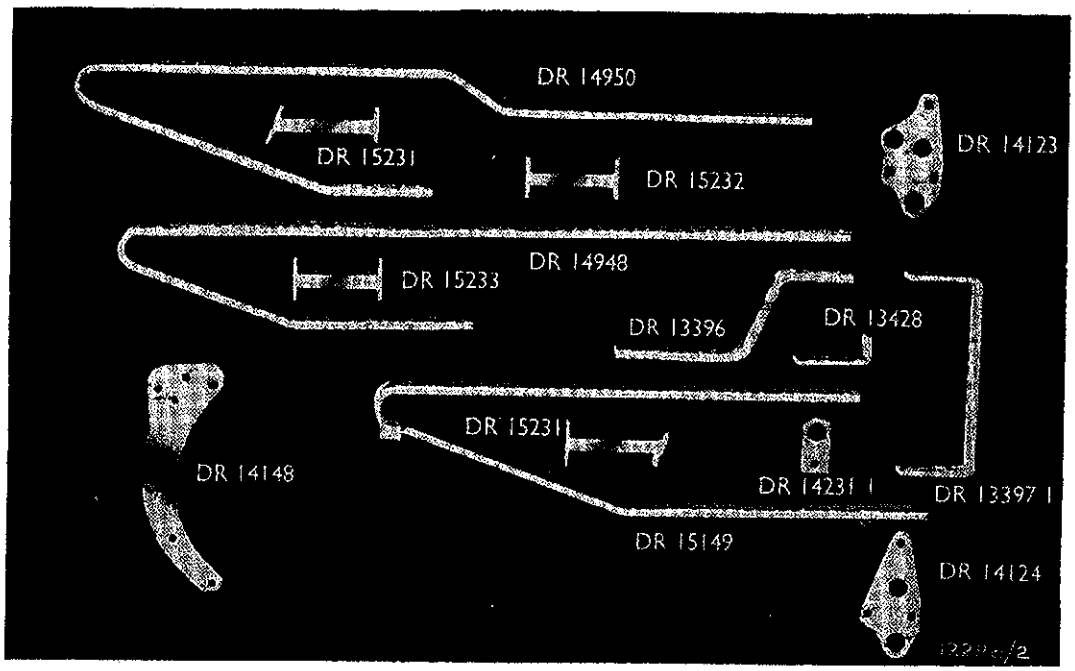


PLATE 1.

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
	MAIN FRAME. (Plate 1).		
DR 13396	Frame and head stay	UCB 110/20R	$\frac{5}{8}$″ × 2$\frac{1}{2}$″
DR 13397/1	Head	UCB 110/14R	$\frac{5}{8}$″ × 1$\frac{3}{4}$″
DR 13428	Head stay (TS.59J)	UCB 110/20R	$\frac{5}{8}$″ × 2$\frac{1}{2}$″
†DR 13471	Pin for bearing (TS.59J)		
DR 14123	Bearing for cross shaft (TS.59J	UCB 110/24R	$\frac{5}{8}$″ × 3″
DR 14124	Bearing for cross shaft and axle (TS.59J)		
DR 14148	Leg	UCB 112/24R	$\frac{3}{4}$″ × 3″
DR 14231/1	Bearing for axle (TS.59J)	UCB 110/26R	$\frac{5}{8}$″ × 3$\frac{1}{4}$″
	Locknut	PSFU 2012F	$\frac{5}{8}$″
DR 15149	Main frame (1st and 2nd furrow)		
DR 15231	Frame stay (1st and 2nd furrow)	UCB 110/18R	$\frac{5}{8}$″ × 2$\frac{1}{4}$″
†DR 15647	Head stay and axle bearing (TS.59M)	UCB 110/18R UCB 110/22R	$\frac{5}{8}$″ × 2$\frac{1}{4}$″ $\frac{5}{8}$″ × 2$\frac{3}{4}$″
†DR 15649	Bearing for axle and cross shaft (TS.59M) ...	UCB 110/22R	$\frac{5}{8}$″ × 2$\frac{3}{4}$″
†DR 15650	Bearing for cross shaft (TS.59M)		
	3rd FURROW FRAME. (PAU 2736. 10″-12″ cut).		
DR 14148	Leg	UCB 112/32R	$\frac{3}{4}$″ × 4″
DR 14948	Frame	UCB 110/32R	$\frac{5}{8}$″ × 4″
DR 15233	Stay	UCB 110/18R UCB 110/29R	$\frac{5}{8}$″ × 2$\frac{1}{4}$″ $\frac{5}{8}$″ × 3$\frac{5}{8}$″

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
	3rd FURROW FRAME. (PAU 2737 12"-14" cut).		
DR 14148	Leg	UCB 112/32R	¾"×4"
DR 14950	Frame	UCB 110/32R	⅝"×4"
DR 15231	Rear stay	UCB 110/18R	⅝"×2¼"
DR 15232	Front stay	UCB 110/40R	⅝"×5"
†PC 2069	Spacer		

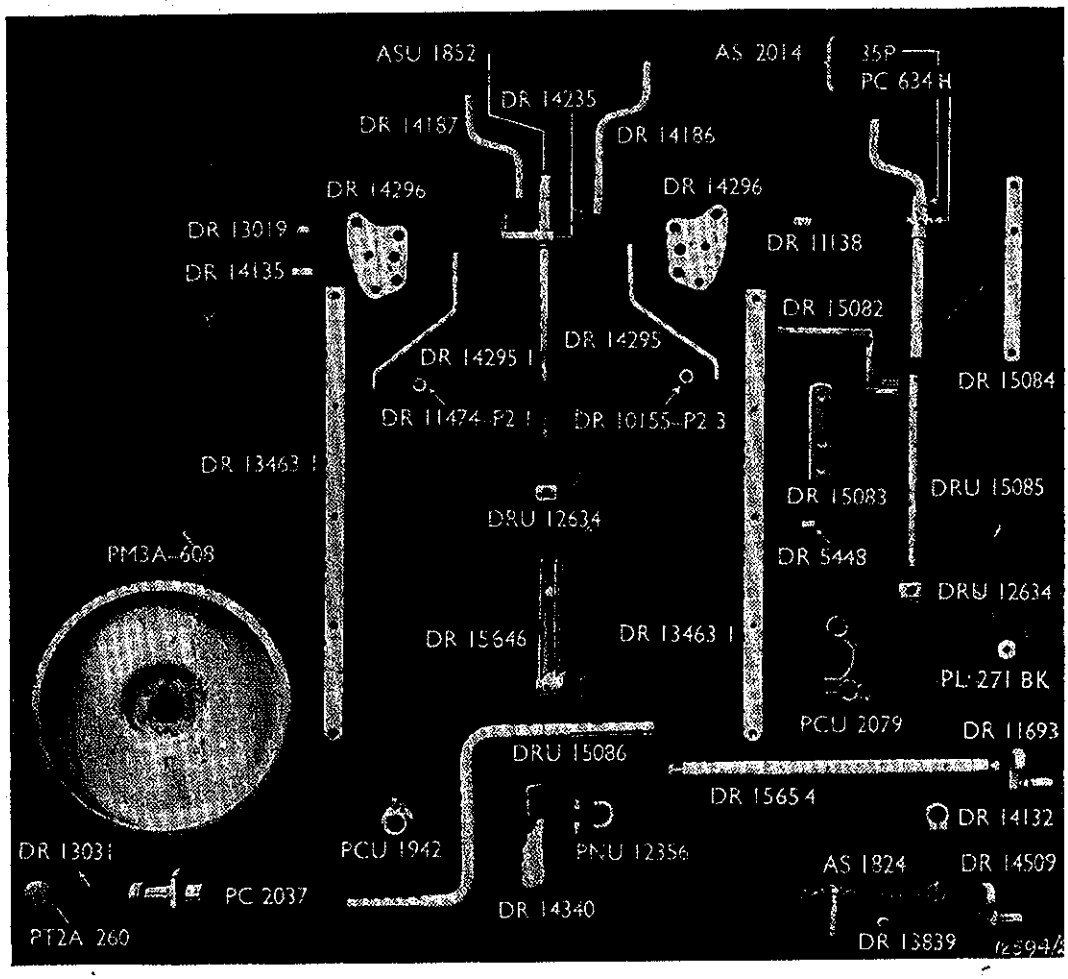


PLATE 2.

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
	WHEEL, CROSS SHAFT AND ADJUSTING SCREW. (Plate 2.		
ASU 1852	Depth screw. (TS.59J).		
AS 2014	Handle for width screw.		

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
†AS 2015	Depth screw. (TS.59M).		
DR 5448	Distance piece. 1 5/16″ long.		
DR 10155-P2/3	Collar, $\frac{1}{8}$″ thick.		
†DR 11138	Distance piece. 1 13/16″ long.		
DR 11474-P2/1	Collar, $\frac{3}{8}$″ thick.		
DR 11693	Crank.		
DRU 12634	Swivel nut.		
DR 13019	Distance piece, 1 5/16″ long.		
DR 13031	Retaining washer.		
DR 13463/1	Rear stay.	UCB 108/22R UCB 112/24R	$\frac{1}{2}$″×2$\frac{3}{4}$″ $\frac{3}{4}$″×3″
DR 14132	Superseded by PC 2130.		
DR 14135	Distance piece, 2 1/16″ long		
DR 14186	Long handle		$\frac{3}{4}$″×5″
DR 14187	Short handle	UCB 105/14R	5/16″×1$\frac{3}{4}$″
DR 14235	Swivel (TS.59J). For 'M' see DR 15652.		
DR 14295	Headstock stay, R.H.	UCB 112/40R	
DR 14295/1	Headstock stay, L.H.	UCB 112/20R	$\frac{3}{4}$″×2$\frac{1}{2}$″
DR 14296	Plates (TS.59J). For 'M' see DR 15657	UCB 112/24R UCB 112/44R	$\frac{3}{4}$″×3″ $\frac{3}{4}$″×5$\frac{1}{2}$″
DR 14340	Scraper (TS5.9J).		
DR 15082	Superseded by DR 15082-P1 and DR 15656.		
†DR 15082-P1	Screw support (inside)	UCB 112/36R	$\frac{3}{4}$″×4$\frac{1}{2}$″
DR 15083	Screw stay.		
DR 15084	Screw support (outside)	UCB 112/30R	$\frac{3}{4}$″×3$\frac{3}{4}$″
DRU 15085	Width screw	UCB 105/14R	5/16″×1$\frac{3}{4}$″
DRU 15086	Axle (TS.59J). For 'M' see DR 15655	UCS 112/11R, L.H.	$\frac{3}{4}$″×1$\frac{5}{8}$″
†DR 15425	Collar $\frac{5}{8}$″ thick (TS.59M).		
†DR 15646	Depth regulating arm	PSFU 769C	$\frac{1}{2}$″×1″
†DR 15652	Swivel (TS.59M).		
†DR 15654	Cross shaft	UCS 110/10R	$\frac{5}{8}$″×1$\frac{1}{4}$″
†DR 15655	Axle (TS.59M)	UCS 112/11R L.H.	$\frac{3}{4}$″×1$\frac{5}{8}$″
†DR 15656	Boss for support.		
†DR 15657	Plates (TS.59M)	UCB 112/40R	$\frac{3}{4}$″×5″
PC 634H	Socket and swivel.		
PCU 1942	Back collar (TS.59J). For "M" model see PC 2129 ...	PSFU 769C	$\frac{1}{2}$″×1″
PC 2037	Wheel hub (TS.59J). For "M" model see PC 2128 ...	UCB 108/12R	$\frac{1}{2}$″×1$\frac{1}{2}$″
PCU 2079	Arm for cross shaft	PSFU 769C PSFU 685K	$\frac{1}{2}$″×1″ $\frac{5}{8}$″×3$\frac{1}{4}$″
†PC 2128	Wheel hub (TS.59M)	UCB 108/12R	$\frac{1}{2}$″×1$\frac{1}{2}$″
†PC 2129	Back collar (TS.59M)	PSFU 769C	$\frac{1}{2}$″×1″
†PC 2130	Collar	PSFU 769C	$\frac{1}{2}$″×1″
PL 270GF	Key for DR 15646		
PL 271BK	Washer for crank		
PM 3A 608	Wheel.		
PNU 12356	"U" bolt for scraper (TS.59J)	UCN 110/A	$\frac{5}{8}$″
PT 2A 260	Hub		
35P	Collar for width screw (TS 59J).		
	Pin	PSF 843.BC	

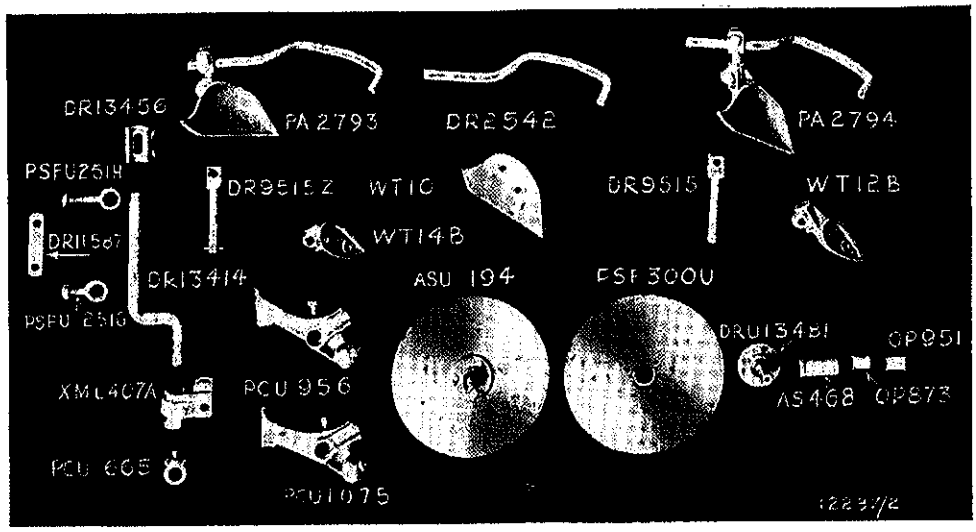


PLATE 3.

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
	DISC COULTER. PAU 476 A & B—Epic and Epic-BP (41K) and YL Bodies (Shallow ploughing). PAU 477 A & B—Epic and Epic-BP (39K) and DMD and DMD-BP Bodies (Deep ploughing). (Plate 3).		
ASU 194	Disc with axle.		
AS 468	Housing with bushes.		
DR 11587	Plate.		
DR 13414	Stalk.		
DR 13456	Coulter block.		
DRU 13481	Axle	UCS 108/7R	$\frac{1}{2}''\times\frac{7}{8}''$
OP 873	Bush (plain).		
OP 951	Bush (flanged).		
PCU 665	Collar	PSFU 766C	$\frac{1}{2}''\times1''$
PCU 956A	Arm. (Shallow ploughing)	PSFU 884D	$\frac{1}{2}''\times9/16''$
PCU 1075A	Arm. (Deep ploughing)	PSFU 776C	$\frac{5}{8}''\times1\frac{1}{2}''$
PSF 300U	Disc, 16″ dia.		
PSFU 251G	Loop (short)	UCN 110A	$\frac{3}{8}''$
PSFU 251H	Loop (long)		
XML 407C	Socket	PSFU 702C	$\frac{3}{4}''\times2\frac{1}{4}''$
	SKIM ATTACHMENT FOR DISC COULTER. PA 2794 (standard). PA 2793 (Deep ploughing). †PA 2791 ("U" pattern).		
DR 2542	Cranked arm		
DR 9515	Adjusting arm (shallow ploughing)	UCB 110/18R	$\frac{5}{8}''\times2\frac{1}{4}''$
DR 9515Z	Adjusting arm (deep ploughing)		
DR 14414	Cranked arm ("U" pattern) ...		
WT 10	Skim share	PSFU 533A	$\frac{3}{4}''\times1\frac{1}{8}''$
WT 12B	Socket (shallow ploughing)	PSFU 688A	$\frac{5}{8}''\times2''$
WT 14B	Socket (deep ploughing)		

SKIM COULTER. (PAU 796 C. & H.) (Plate 4).

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
DR 11665	Strip.		
DR 13916	Stalk.		
DR 12476	Staple (short)	UCN 114A	$\frac{7}{8}$"
DRU 13085	Staple (long)		
IBP 55AM	Frog	PSFU 591D	7/16"×2"
IBP 57	Mouldboard	PSFU 528C	$\frac{3}{8}$"×1$\frac{1}{4}$"
IBP 58	Point	PSFU 547F	$\frac{3}{8}$"×1$\frac{5}{8}$"
PN 12545	Plate.		
PSFU 1020F	Adjusting nut	PSFU 773F	$\frac{5}{8}$"×2$\frac{1}{4}$"

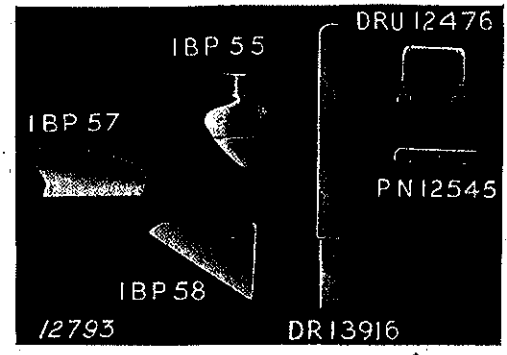


PLATE 4.

KNIFE COULTER. (PAU 624, D & E). (Plate 5).

DR 10298	Wedge.		
PSF 34	Chain.		
DR 11665	Strip.		
DR 13483	Cranked coulter		
†DR 14954	Straight coulter.		
PN 12518	Plate.		
†PNU 6182	Staple (long)	UCN 112A	$\frac{7}{8}$"
PNU 11725	Staple (short)		

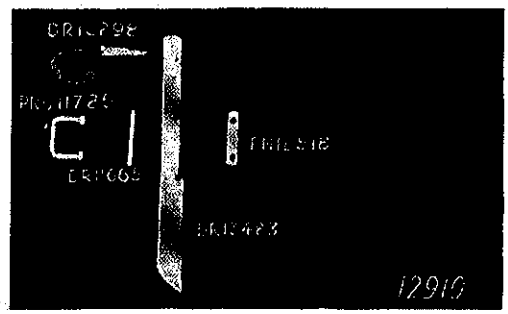


PLATE 5.

REAR DROPPER. (Not illustrated).

DR 12185	Dropper	PSFU 2706J	$\frac{3}{4}$"×3$\frac{3}{4}$"
DR 12525/1	Bush.		

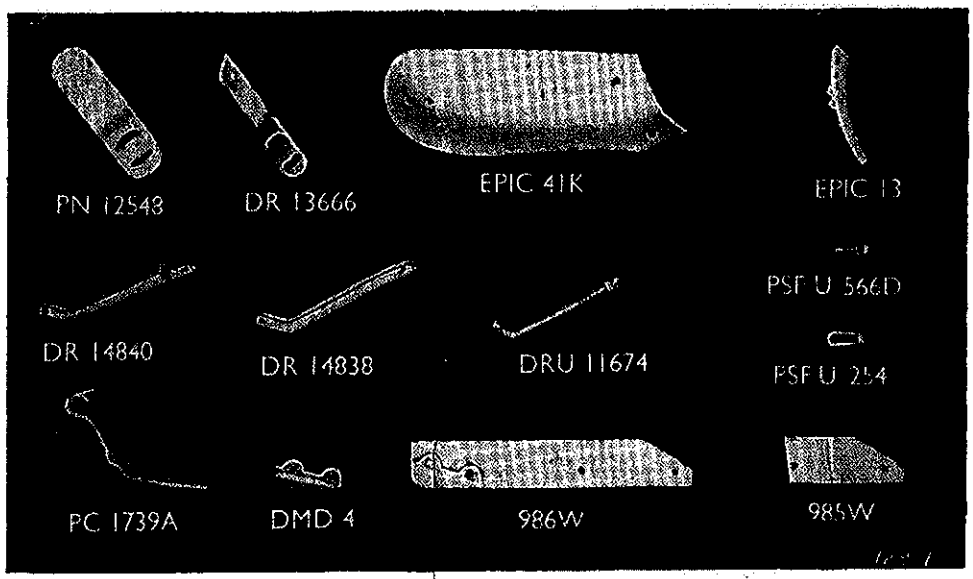


PLATE 6.

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
	EPIC BODY WITH EPIC 41K MOULDBOARD. (RBBU 800E, F). (Plate 6).		
DMD 4	Heel	PSFU 601C	½″×1½″
DR 13666	Knife tailpiece (when ordered).		
DR 14838	Front stay.		
DR 14840	Rear stay.		
DRU 11674	Round stay	UCN 110A	⅝″
EPIC 13	Shin	PSFU 566D	⅜″×3″
PSFU 254	Loop nut.		
EPIC 41K	Mouldboard	PSFU 608B	½″×1¼″
		PSFU 608D	½″×1¾″
		PSFU 608E	½″×2″
PC 1739A	Frog	PSFU 2703J	¾″×3½″
		PSFU 2706E	¾″×2½″
†PN 10955	Knife tailpiece, Irish pattern (when ordered).		
PN 12548	Flat tailpiece (standard).		
985 W	Front landside.	PSFU 601C	½″×1½″
986 W	Rear landside with heel	PSFU 601D	½″×1¾″

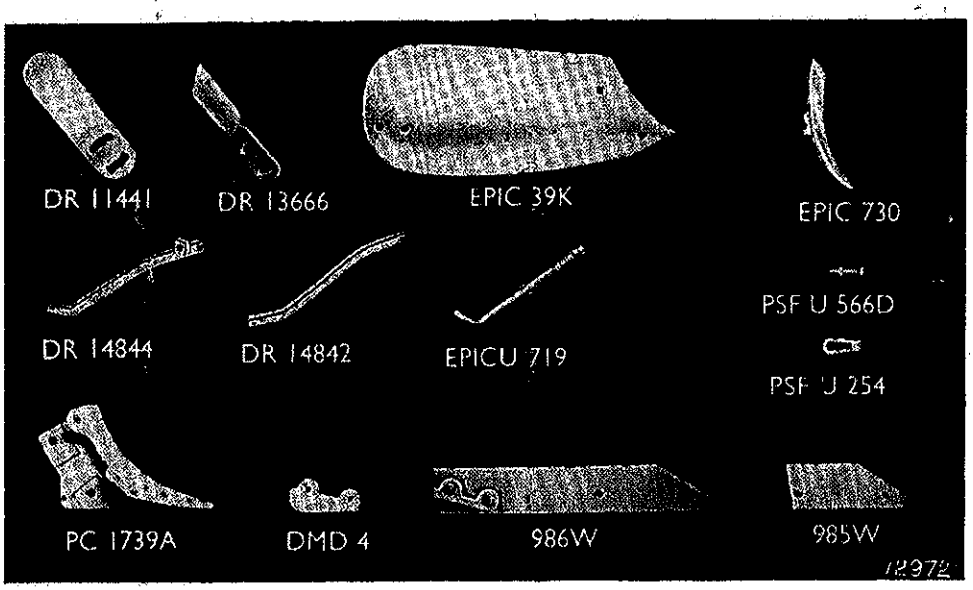


PLATE 7.

	EPIC BODY WITH EPIC 39K MOULDBOARD. (RBBU 852 A & B). (Plate 7).		
DMD 4	Heel	PSFU 601C	½″×1½″
DR 11441	Flat tailpiece (standard).		
DR 13666	Knife tailpiece (when specially ordered).		
DR 14842	Front stay.		
DR 14844	Rear stay.		

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
EPIC 39K	Mouldboard	PSFU 608B	$\frac{1}{2}'' \times 1\frac{1}{2}''$
		PSFU 608D	$\frac{1}{2}'' \times 1\frac{3}{4}''$
		PSFU 608E	$\frac{1}{2}'' \times 2''$
EPIC 730	Shin	PSFU 566D	$\frac{3}{8}'' \times 3''$
PSFU 254	Loop nut.		
EPICU 719	Round stay.		
PC 1739A	Frog	PSFU 2703J	$\frac{3}{4}'' \times 3\frac{1}{2}''$
		PSFU 2706E	$\frac{3}{4}'' \times 2\frac{1}{2}''$
985 W	Front landside	PSFU 601C	$\frac{1}{2}'' \times 1\frac{1}{2}''$
986 W	Rear landside with heel	PSFU 601C	$\frac{1}{2}'' \times 1\frac{1}{2}''$
		PSFU 601D	$\frac{1}{2}'' \times 1\frac{3}{4}''$

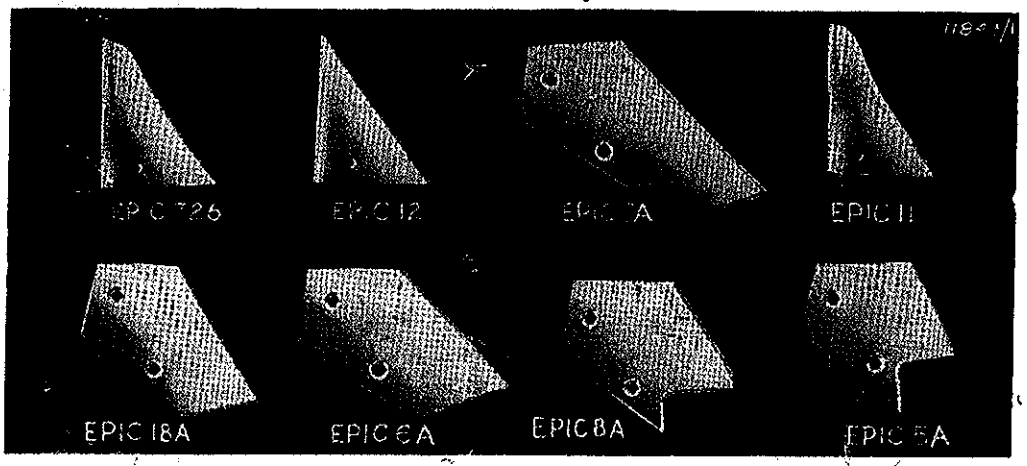


PLATE 8.

	EPIC POINTS AND WINGS. (Plate 8).		
EPIC 5A	Lea wing, $8\frac{1}{4}''$ wide (with EPIC 11 point) ...		
EPIC 6A	Stubble wing, 11" wide		
EPIC 7A	Stubble wing, $11\frac{1}{4}''$ wide	PSF 604C	$\frac{1}{2}'' \times 1\frac{1}{2}''$
†EPIC 7S	Cast steel stubble wing, $11\frac{1}{4}''$ wide		
EPIC 8A	Lea wing, $9\frac{1}{4}''$ wide (for EPIC 11 point)		
EPIC 11	Lea point (with EPIC 5 and 8 wings only).		
EPIC 12	Stubble point (with sharp nose).		
†EPIC 17AW	Wrought steel wing, 9" wide.		
EPIC 18A	Cast iron wing, 9" wide (standard).		
EPIC 726	Stubble point (standard).		
†EPIC 726S	Cast steel stubble point.		
PSF 848D	Peg.		

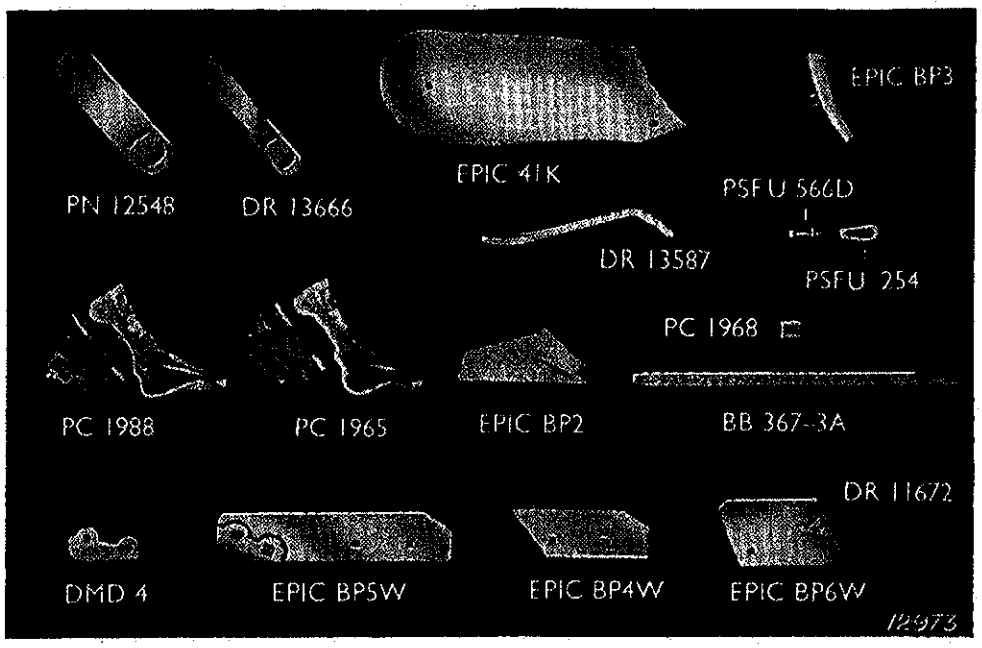


PLATE 9.

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
	EPIC-BP BODY WITH EPIC 41K MOULDBOARD. (RBBU 804A & B). (Plate 9).		
BB 367-3A	Barpoint.		
†DR 11672	Stud for sidecap.		
DR 13587	Stay.		
DR 13666	Knife tailpiece (when ordered).		
DMD 4	Heel	PSFU 601C	$\frac{1}{2}$"×1$\frac{1}{2}$"
EPIC 41K	Mouldboard	PSFU 608C	$\frac{1}{2}$"×1$\frac{1}{2}$"
		PSFU 608D	$\frac{1}{2}$"×1$\frac{3}{4}$"
		PSFU 608E	$\frac{1}{2}$"×2"
EPIC-BP 2	Share	PSFU 604B	$\frac{1}{2}$"×1$\frac{1}{4}$"
EPIC-BP 3	Shin	PSFU 566D	$\frac{3}{8}$"×3"
PSFU 254	Loop nut		
EPIC-BP 4W	Front landside	PSFU 601D	$\frac{1}{2}$"×1$\frac{3}{4}$"
EPIC-BP 5W	Rear landside		
EPIC-BP 6W	Sidecap	PSFU 529E	$\frac{3}{8}$"×1$\frac{1}{2}$"
PC 1968	"D" collar (bottom bolt).		
PCU 1965	Front frog	PSFU 776B	$\frac{5}{8}$"×1$\frac{1}{4}$"
PCU 1988	Rear frog	PSFU 2706G	$\frac{3}{4}$"×3$\frac{1}{2}$"
PN 12548	Flat tailpiece (standard)	PSFU 2706N	$\frac{3}{4}$"×4$\frac{1}{2}$"

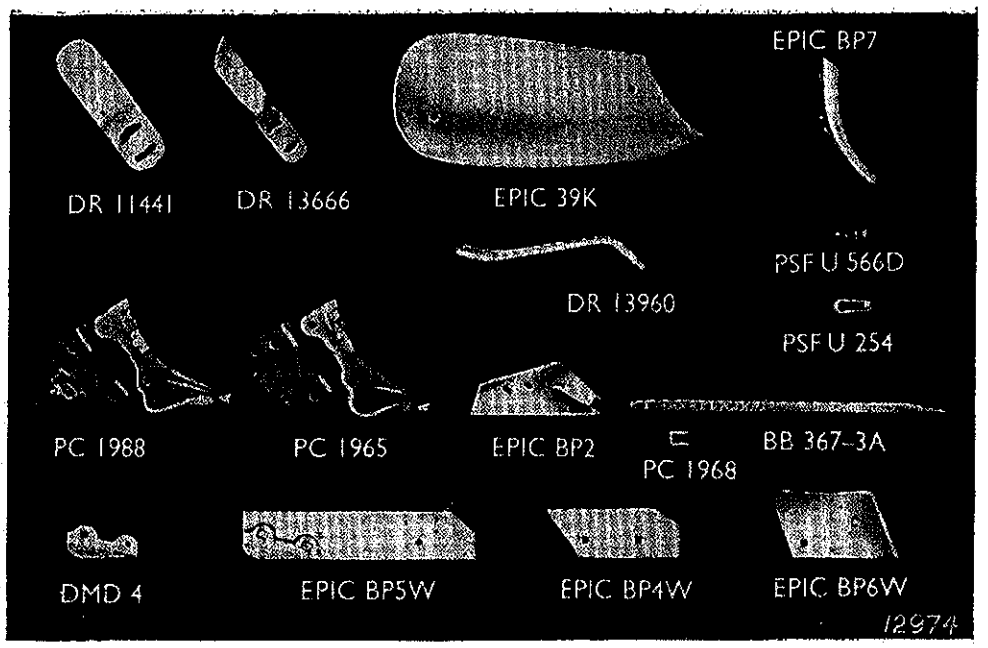


PLATE 10.

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
	EPIC-BP BODY WITH EPIC 39K MOULDBOARD. (RBBU 845A & B). (Plate 10).		
BB 367-3A	Barpoint.		
DMD 4	Heel	PSFU 601C	½″×1¼″
DR 11441	Flat tailpiece (standard).		
DR 11672	Stud for sidecap.		
DR 13666	Knife tailpiece (when ordered).		
DR 13690	Stay.		
EPIC-39K	Mouldboard	PSFU 608C	½″×1½″
		PSFU 608D	½″×1¾″
		PSFU 608E	½″×2″
EPIC-BP 2	Share	PSF 604B	½″×1¼″
EPIC-BP 4W	Front landside	PSFU 601D	½″×1¾″
EPIC-BP 5W	Rear landside with heel		
EPIC-BP 6W	Sidecap	PSFU 529E	⅜″×1½″
EPIC-BP 7	Shin	PSFU 566D	⅜″×3″
PSFU 254	Loop nut.		
PC 1968	"D" collar (bottom bolt).		
PCU 1965	Front frog	PSFU 776B	⅝″×1¼″
PCU 1988	Rear frog	PSFU 776B	⅝″×1¼″
		PSFU 2706G	¾″×3½″
		PSFU 2706N	¾″×4½″

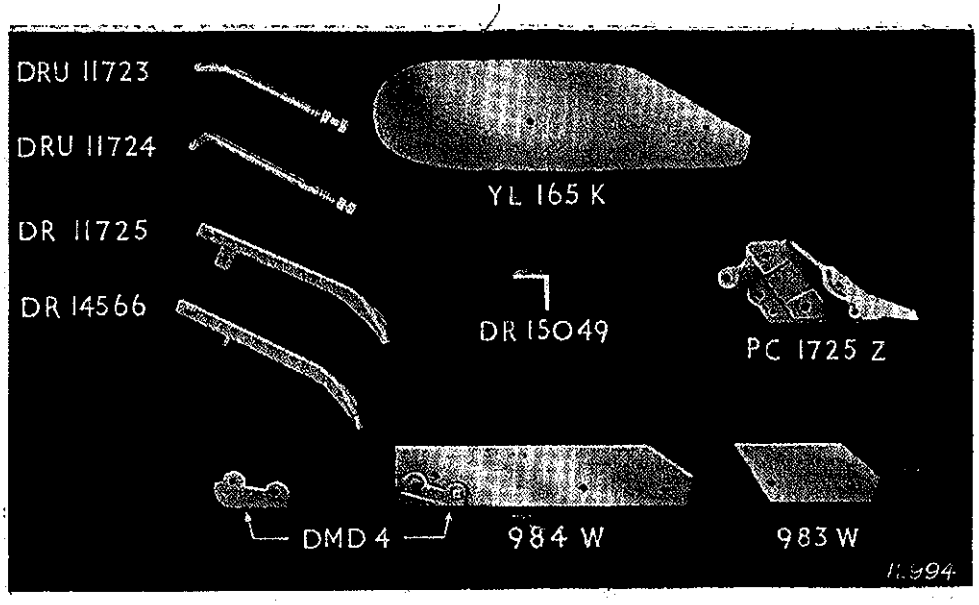


PLATE 11.

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
	YL 165K BODY (RBBU 870 C & D). (Plate 11).		
DMD 4	Heel.		
DR 7553	Flat tailpiece (when ordered).		
DR 9190/1	Dropper.		
DR 11589	Packing piece (not required when tailpiece is fitted).		
DR 11725	Rear flat stay and coupling.		
DR 13559	Bush for dropper.		
DR 15049	Coupling for frog and flat stay.		
DRU 11723	Round stay from mouldboard to frog	UCN 112/A	¾"
DRU 11724	Round stay from mouldboard to rear landside.		
DRU 14566	Front flat stay and coupling.		
983 W	Front landside.		
984 W	Rear landside with heel	PSFU 601C	½"×1½"
		PSFU 601D	½"×1¾"
		PSFU 601G	½"×2½"
		PSFU 601F	½"×2¾"
PC 1725Z	Frog	PSFU 2703F	¾"×2⅞"
		PSFU 2706E	¾"×2½"
		PSFU 2404D	¼"×1¾"
PC 1735	Coupling for frog and flat stay (superseded by DR 15049)	PSFU 640C	½"×1½"
YL 165K	Mouldboard	PSFU 608C	½"×1½"
		PSFU 608D	½"×1¾"
		PSFU 625D	½"×1¾"

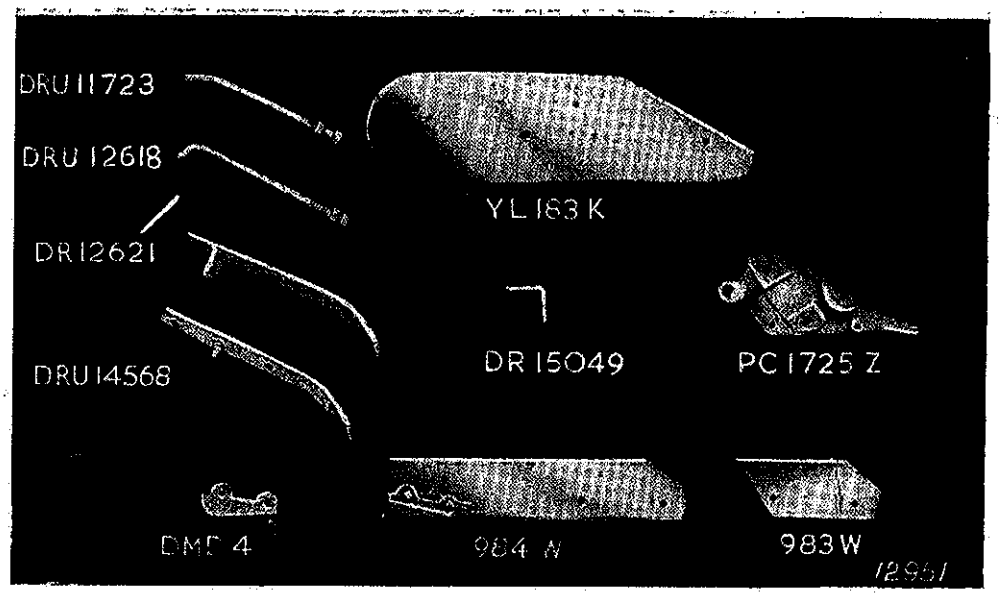


PLATE 12.

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
	YL 183K BODY (RBBU 867A & B). (Plate 12).		
DMD 4	Heel.		
DR 7553	Flat tailpiece (when ordered).		
DR 9190/1	Dropper.		
DR 13559	Bush for dropper.		
DR 15049	Coupling for frog and flat stay.		
DR 11589	Packing piece (not required when tailpiece is fitted).		
DRU 11723	Round stay from mouldboard to frog	UCN 112/A	$\frac{3}{4}$"
DRU 12618	Round stay from mouldboard to rear landside.		
DRU 12621	Rear flat stay and coupling.		
DRU 14568	Front flat stay and coupling.		
983 W	Front landside.		
984 W	Rear landside with heel	PSFU 601C	$\frac{1}{2}$" × $1\frac{1}{2}$"
		PSFU 601D	$\frac{1}{2}$" × $1\frac{3}{4}$"
		PSFU 601G	$\frac{1}{2}$" × $2\frac{1}{2}$"
		PSFU 601F	$\frac{1}{2}$" × $2\frac{3}{4}$"
PC 1725Z	Frog	PSFU 2703F	$\frac{3}{4}$" × $2\frac{7}{8}$"
		PSFU 2706E	$\frac{3}{4}$" × $2\frac{1}{2}$"
		PSFU 2404D	$\frac{1}{2}$" × $2\frac{3}{4}$"
PC 1735	Coupling for frog and flat stay (superseded by DR 15049)	PSFU 640D	$\frac{1}{2}$" × $1\frac{1}{4}$"
YL 183K	Mouldboard	PSFU 608C	$\frac{1}{2}$" × $1\frac{1}{2}$"
		PSFU 608D	$\frac{1}{2}$" × $1\frac{3}{4}$"
		PSFU 625D	$\frac{1}{2}$" × $1\frac{3}{4}$"

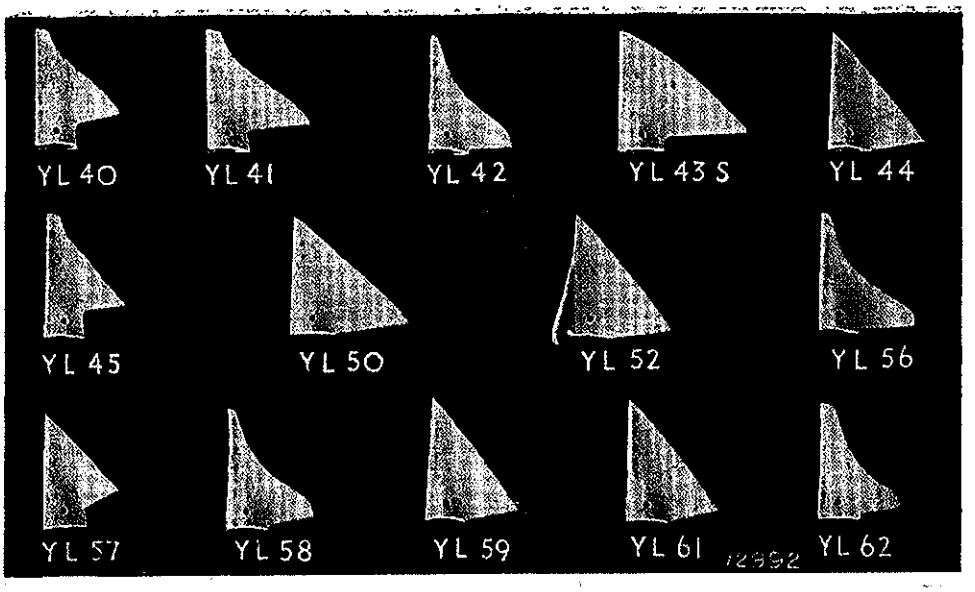


PLATE 13.

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
	YL SHARES. (Plate 13).		
YL 40	7½″ wide. With upturned wing and chisel point.		
YL 41	9″ wide.		
YL 42	7½″ wide. With flat wing and long point (for stony land.)		
YL 43S	11″ wide. Cast steel.		
YL 44	8″ wide. With flat wing and sharp point.		
†YL 44S	8″ wide. Cast steel.		
YL 45	7″ wide. Lea share with 1½″ up wing.		
YL 50	10″ wide.		
YL 52	8½″ wide. With cast shin.		
YL 56	9″ wide.		
YL 57	6″ wide (for very hard land).		
YL 58	7½″ wide (with solid box).		
YL 59	8″ wide (solid box).		
YL 61	8″ wide (standard).		
YL 62	8″ wide (chisel point for stony land).		

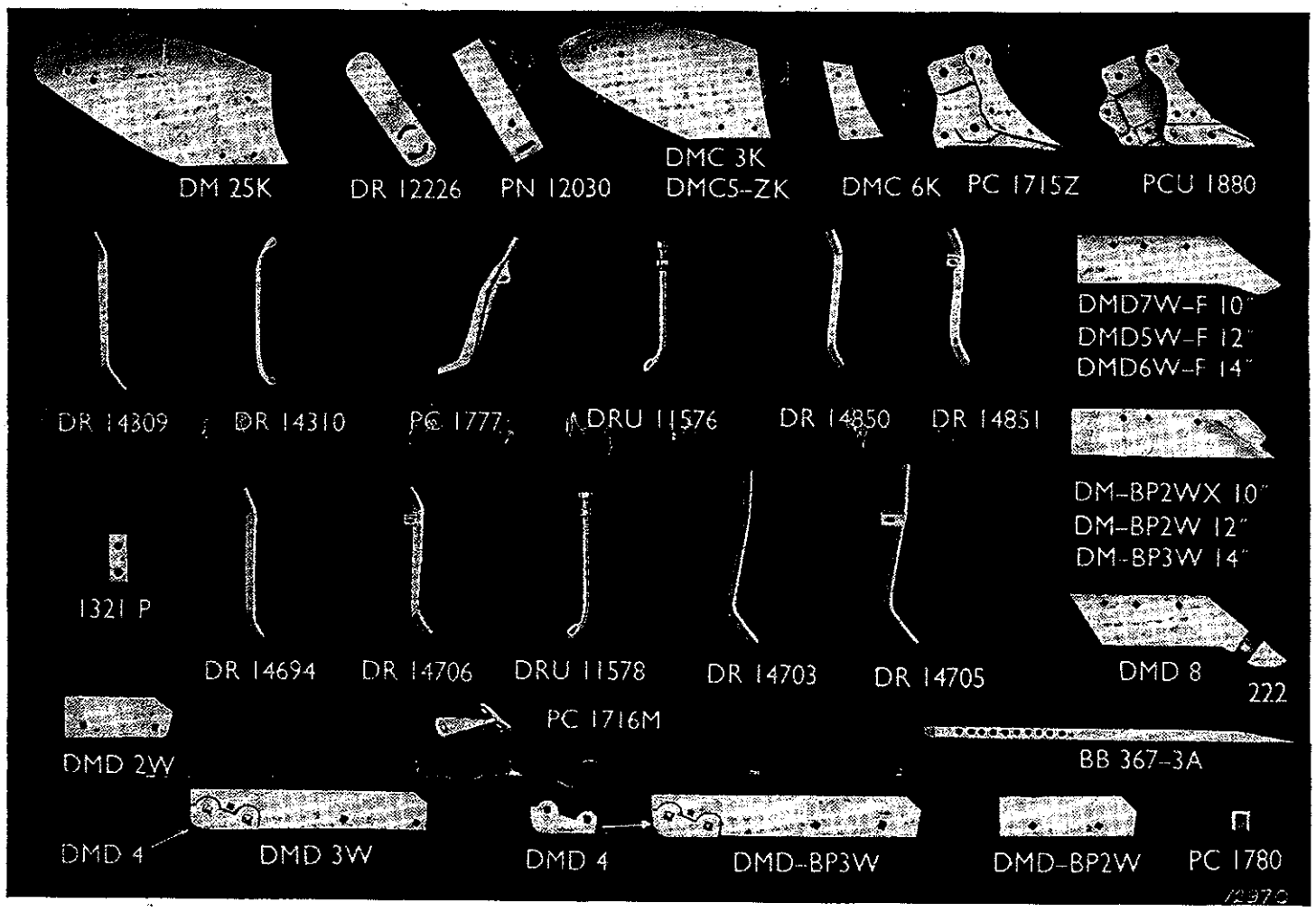

DM 25K
DR 12226
PN 12030
DMC 3K
DMC5-ZK
DMC 6K
PC 1715Z
PCU 1880
DMD7W-F 10"
DMD5W-F 12"
DMD6W-F 14"
DR 14309
DR 14310
PC 1777
DRU 11576
DR 14850
DR 14851
DM-BP2WX 10"
DM-BP2W 12"
DM-BP3W 14"
1321 P
DR 14694
DR 14706
DRU 11578
DR 14703
DR 14705
DMD 8
222
PC 1716M
DMD 2W
BB 367-3A
DMD 4
DMD 3W
DMD 4
DMD-BP3W
DMD-BP2W
PC 1780

PLATE 6.

Mark	Description	Setscrews, Bolts and Nuts, Mark	Size
	DMD BODY. (Plate 6).		
DM 25K	Mouldboard, 12″ (one piece) } Export	PSFU 608B	½″×1¼″
DMC 3K	Mouldboard, 12″ (taking shin) } Only	PSFU 608C	½″×1½″
DMC 5ZK	Mouldboard, 14″ (taking shin)	PSFU 608E	½″×2″
DMC 6K	Shin	PSFU 608B	½″×1¼″
		PSFU 533A	⅜″×1⅛″
DMD 2W	Front landside	PSFU 601C	½″×1½″
DMD 3W	Rear landside with heel	PSFU 601D	½″×1¾″
DMD 4	Heel		
DMD 5WF	Share, 12″		
DMD 6WF	Share, 14″	PSFU 533D	⅜″×1¼″
DMD 7WF	Share, 10″	PSFU 604B	½″×1¼″
DMD 8	Cast share taking point.		
DR 12226	Tailpiece (Home)		
DR 14694	Front stay (DMC 5ZK mouldboard)	PSFU 608D	½″×1¼″
DR 14309	Stay (DM 25K mouldboard).		
DR 14310	Round stay (DM 25K mouldboard)	PSFU 601D UCN 110/A	½″×1¾″ ⅝″
DR 14706	Rear stay (DMC 5ZK mouldboard).		
DRU 11576	Round stay (DMC 3K mouldboard)	UCN 110/A	⅝″
DRU 11578	Round stay (DMC 5ZK mouldboard)	PSFU 601D	½″×1¾″
PC 1715Z	Frog	PSFU 2706E	¾″×2½″
		PSFU 2703J	¾″×3½″
PC 1716 M	Coupling	PSFU 601E	½″×2″
PC 1777	Stay (DMC 3K mouldboard).	PSFU 608D	½″×1¼″
PN 12030	Tailpiece (Export).		
222	Point for DMD 8 share.		
	DMD-BP. (Plate 6).		
BB 367-3A	Barpoint.		
DM-BP 2WX	Share, 10″		
DM-BP 2W	Share, 12″	PSFU 604B	½″×1¼″
DM-BP 3W	Share, 14″		
DMC 3K	Mouldboard, 12″ Export only.	PSFU 608C	½″×1½″
DMC 5ZK	Mouldboard, 14″	PSFU 608B	½″×1¼″
		PSFU 608E	½″×2″
DMC 6K	Shin	PSFU 608B	½″×1¼″
		PSFU 533A	⅜″×1⅛″
DMD 4	Heel	PSFU 601C	½″×1½″
DMD-BP 2W	Front landside	PSFU 601C	½″×1½″
DMD-BP 3W	Rear landside with heel	PSFU 601L	½″×3½″
DR 12226	Tailpiece (home).		
DR 14703	Front stay (DMC 5ZK mouldboard).		
DR 14705	Rear stay (DMC 5ZK mouldboard).		
DR 14850	Front stay (DMC 3K).		
DR 14851	Rear stay (DMC 3K).		
DRU 11576	Round stay (DMC 3K)	PSFU 601D	½″×1¾″
DRU 11578	Round stay (DMC 5 mouldboard)		
PC 1780	"D" washer		

Mark	Description	Setscrews, Bolts and Nuts Mark	Size
PCU 1880	Frog	PSFU 776B PSFU 2706N PSFU 2703K	$\frac{5}{8}'' \times 1\frac{1}{4}''$ $\frac{3}{4}'' \times 4\frac{1}{2}''$ $\frac{3}{4}'' \times 3\frac{3}{4}''$
PN 12030	Tailpiece (Export).		
1321 P	Coupling, mouldboard and share.		
	SPANNERS.		
56×75AF	$\frac{3}{8}'' \times \frac{1}{2}''$.		
94×112AF	$\frac{5}{8}'' \times \frac{3}{4}''$		
	CRANKS FOR CROSS SHAFT AND UPPER HITCH PIN. (Category 1).		
AS 1824	Upper hitch pin with ferrules and chain.		
DR 13839	Ferrules.		
DR 14509	Crank for cross shaft.		
PSF 3050	Chain and "S" hook.		
PSF 3052	Cotter pin and ring.		

Supplement to Instructions and List of Parts for FR TS59E Mounted Plough, publication 16497G.

Publication 17149FG.

FR MOUNTED PLOUGH TS.59J

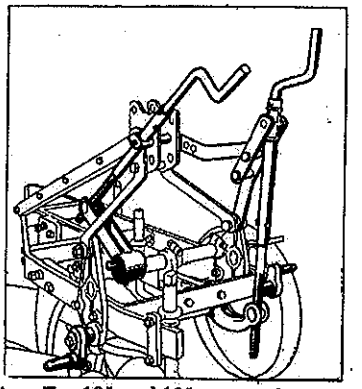
The TS59J is a modified version of the TS59E, the main difference being the provision for inter changing the positions of the two adjusting screws. Except for the following points, the instructions for assembling and working the plough given in the Main List apply equally to the TS59J.

For 10″ and 12″ cut the width adjusting screw of the TS59J is fitted to the land side and the depth adjusting screw on the furrow side to ensure a correct line of draught under all conditions. (See illustrations A and B.)

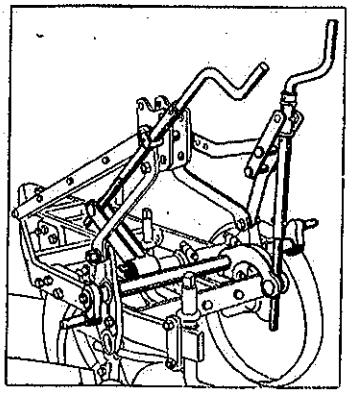
For 14″ cut the position of the screws can be changed over if desired to bring the width adjusting screw into a more convenient position for the operator (see illustrations C and D). With the screws in this position, a $\frac{3}{8}$″ thick spacing washer (supplied) is required for bolt X, and the inner axle bearing must be moved to the land side of the main frame.

Cross-shaft setting. For the TS59J, the cross-shaft settings (L fig. 10 in Main List) are as under:—

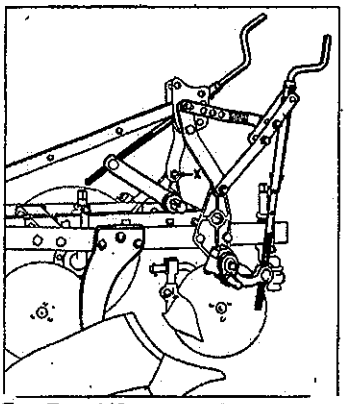
For 10″ cut—$2\frac{3}{4}$″
For 12″ cut—$4\frac{1}{2}$″
For 14″ cut—$6\frac{1}{2}$″



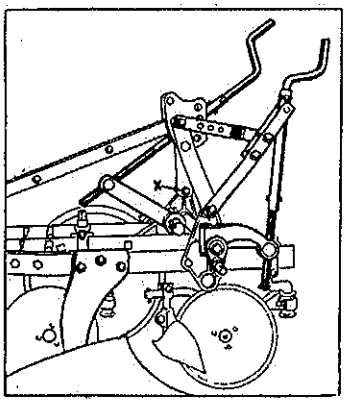
A. *For 10″ and 12″ cut with cross shaft under the frame.*



B. *For 10″ and 12″ cut with cross-shaft above the frame.*



C. *For 14″ cut with cross-shaft under the frame.*



D. *For 14″ cut with cross-shaft above the frame.*

For list of special parts for TS.59J see over page.

SPECIAL PARTS FOR TS.59J

Except for the following components, the Spare Parts given in the Main List apply to the TS59J. The part numbers in the last column show the corresponding parts for the TS59E model. They are not used on the TS59J. When ordering, the description and the mark shown in the first column only need be quoted.

Part No. (TS59J)	Qty. per section.	Description.	Part No. (TS59E)
DR 11474-P2/1	2	Collar for headstock stay L.H. and for bearing for cross-shaft ...	DR 10288-P8
DR 14231/1	1	Bearing for axle with pins	DR 14231
DR 14948	1	Main frame (3rd furrow) 10″ and 12″ cut	DR 14329
DR 14950	1	Main frame (3rd furrow) 12″ and 14″ cut	DR 14330
DR 15082	1	Support for width adjusting screw. Inside	DR 14230
DR 15083	1	Stay for width adjusting screw	
DR 15084	1	Support for width adjusting screw. Outside	DR 13401/1
DRU 15085	1	Width adjusting screw	DR 14141/1
DRU 15086	1	Axle with setscrew for depth wheel	DR 14299
DR 15149	1	Main frame (1st and 2nd furrow)	DR 14328
DR 15231	1	Frame stay (1st and 2nd furrow)	DR 14899
DR 15232	1	Front frame stay (2nd and 3rd furrow) 12″ and 14″ cut ...	DR 14949
DR 15231	1	Rear frame stay (2nd and 3rd furrow) 12″ and 14″ cut ...	DR 14899
DR 15233	1	Rear frame stay (2nd and 3rd furrow) 10″ and 12″ cut ...	DR 14901
DR 15233/1	1	Front frame stay (2nd and 3rd furrow) 10″ and 12″ cut ...	DR 14901/1
PC 2069	1	Beam spacer 12″ and 14″ cut	
PCU 2079	1	Arm for cross-shaft with setscrew	DR 13470 & PC 1938 M

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RANSOMES SIMS & JEFFERIES LTD., IPSWICH, ENGLAND

Supplement to Instructions and List of Parts for FR TS59E Mounted Plough. Publication No. 16497G.

Publication 17701H

FR MOUNTED PLOUGHS TS.59J and TS.59M

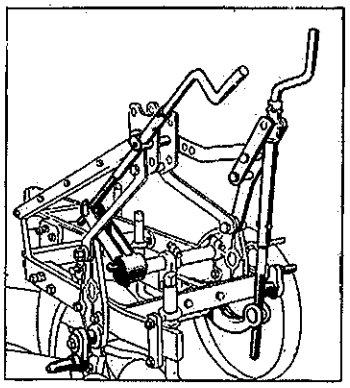
These ploughs are modified versions of the TS59E, the main difference being the provision for interchanging the positions of the two adjusting screws. Except for the following points, the instructions for assembling and working the plough given in the main list apply equally to the TS59J. and TS.59M.

For 10″ and 12″ cut the width adjusting screw of the TS59J and TS59M is fitted to the land side and the depth adjusting screw on the furrow side to ensure a correct line of draught under all conditions. (See illustrations A and B.)

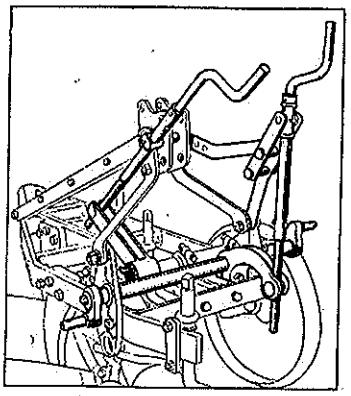
For 14″ cut the position of the screws can be changed over if desired to bring the width adjusting screw into a more convenient position for the operator (see illustrations C and D). With the screws in this position, a $\frac{3}{8}$″ thick spacing washer (supplied) is required for bolt X, and the inner axle bearing must be moved to the land side of the main frame. (TS.59J only).

Cross-shaft setting. For the TS59J and TS59M the cross-shaft settings (L fig. 10 in Main List) are as under:—

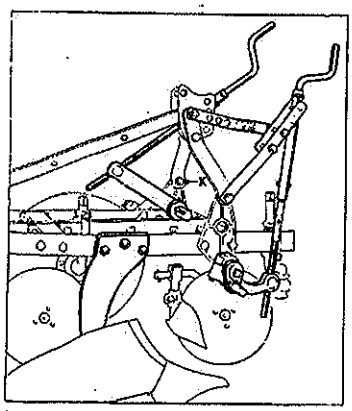
For 10″ cut—$2\frac{3}{4}$″
For 12″ cut—$4\frac{1}{2}$″
For 14″ cut—$6\frac{1}{2}$″



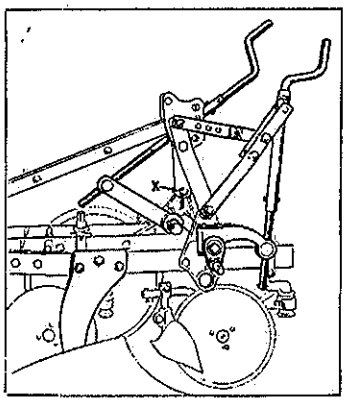
A. *For 10″ and 12″ cut with cross-shaft under the frame.*



B. *For 10″ and 12″ cut with cross-shaft above the frame.*



C. *For 14″ cut with cross-shaft under the frame.*



D. *For 14″ cut with cross-shaft above the frame.*

For list of special parts see overleaf.

EA C 5712 (Printed in England).

SPECIAL PARTS for the TS. 59J and TS. 59M

With the exception of the items enumerated below, parts shown in the main list apply to the TS. 59J and TS. 59M models. When ordering it is only necessary to quote the part number given in the first column.

Parts for the TS. 59J which differ from TS. 59E

Part No. (TS59J)	Qty. per section.	Description.	Part No. (TS59E)
DR 11474-P2/1	2	Collar for headstock stay L.H. and for bearing for cross-shaft ...	DR 10288-P8
DR 14231/1	1	Bearing for axle with pins	DR 14231
DR 14948	1	Main frame (3rd furrow) 10" and 12" cut	DR 14329
DR 14950	1	Main frame (3rd furrow) 12" and 14" cut	DR 14330
DR 15082	1	Support for width adjusting screw. Inside	DR 14230
DR 15083	1	Stay for width adjusting screw	
DR 15084	1	Support for width adjusting screw. Outside	DR 13401/1
DRU 15085	1	Width adjusting screw	DR 14141/ 1
DRU 15086	1	Axle with setscrew for depth wheel	DR 14299
DR 15149	1	Main frame (1st and 2nd furrow)	DR 14328
DR 15231	1	Frame stay (1st and 2nd furrow)	DR 14899
DR 15232	1	Front frame stay (2nd and 3rd furrow) 12" and 14" cut ...	DR 14949
DR 15231	1	Rear frame stay (2nd and 3rd furrow) 12" and 14" cut ...	DR 14899
DR 15233	1	Rear frame stay (2nd and 3rd furrow) 10" and 12" cut ...	DR 14901
DR 15233/1	1	Front frame stay (2nd and 3rd furrow) 10" and 12" cut ...	DR 14901/1
PC 2069	1	Beam spacer 12" and 14" cut	
PCU 2079	1	Arm for cross-shaft with setscrew	DR 13470 & PC 1938 M

Parts for the TS. 59M which differ from the TS. 59J

Part No. (TS.59M)	Qty. per section	Description.	Part No. (TS.59J)
AS 2015	1	Depth adjusting screw with sleeve and swivel	ASU 1852
DR 15425		Collar for headstock, L.H.	
DR 15647	2	Head stay and axle bearing	DR 13428
DR 15649	1	Bearing for axle and cross-shaft	DR 14123
DR 15650	1	Bearing for cross-shaft	DR 14124
DR 15655	1	Axle	DRU 15086
DR 15657	2	Headstock plates	DR 14296
PC 2128	1	Wheel hub	PC 2037
PC 2129	1	Back collar	PCU 1942
PL 271 BK	2	End collar for cross-shaft	DR 12861

Parts in the main list which are superseded on all models - TS 59E, J and M.

Part No.	Qty. per section	Description.
AS 1851		Handle for width adjusting screw with sleeve and swivel. (Superseded by AS 2014).
DR 13402		Depth regulating arm. (Superseded by DR 15646).
DRU 11697		Cross-shaft. (Superseded by DR 15654).
DR 14132		Collar for axle and cross-shaft. (Superseded by PC 2130).
PC 634		Socket and swivel. (Superseded by PC 634H).

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