

API SEEDER MANUAL



**AGROWPLOG**  
PTY. LIMITED

NOTE  
MASTER COPY

DESIGNED AND MADE IN AUSTRALIA

DESIGNERS AND MANUFACTURERS OF AGRICULTURAL MACHINERY SYSTEMS

30 Folkestone Parade, Botany, NSW, Australia 2019. Phone: (02) 666 4766  
134 Thornton Street, Wellington NSW 2820 Australia Phone: (068) 45 1566

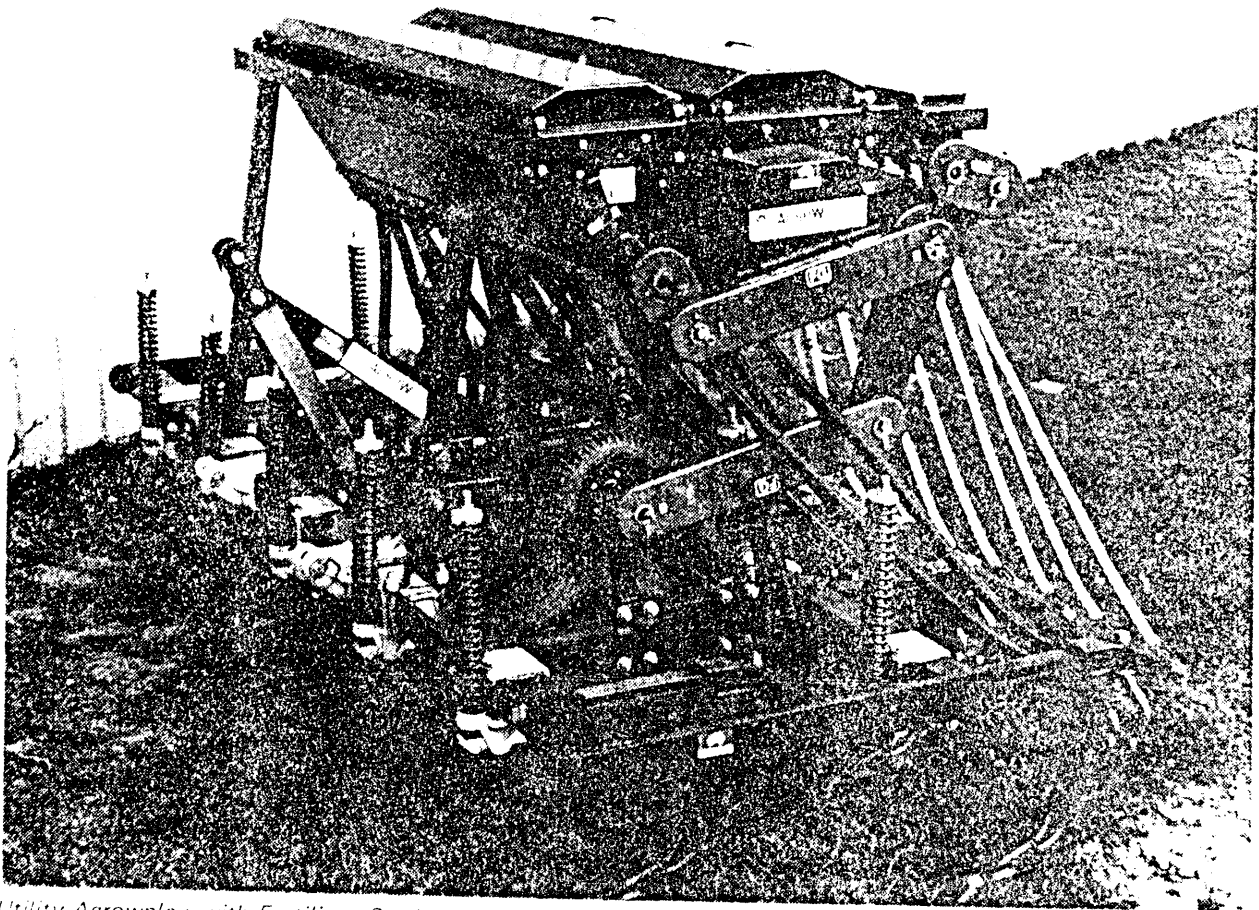
## INTRODUCTION TO THE AGROWSEEDER

The Agrowseeder sowing system uses high capacity seed boxes fitted with nylon seed feeding units. These units incorporate adjustable bottom traps and shut off plates. The seed box is driven from the ground wheel via enclosed chain cassettes to a gearbox with twenty ratios.

Between the gearbox and the sowing shaft is a set of gears, one of which is replacable (the one on the sowing shaft) from a set of four gears, this allows a total of eighty different ratios to be selected.

The seed is fed via corrugated P.V.C tubing to the seeding boots which are adjustable up and down the shanks to control seeding depth.

Two attachments are available for the sowing blade. The first is a splitter plate which is fixed underneath the sowing blade to deflect the seed preventing too deep a seed placement, this is used in soils that are reluctant to refill the shank groove. The second attachment is a trailing plate attached to the shank below the sowing blade. This compensates for the movement of digging blade on spring jump machines.



*Utility Agrowplow with Fertilizer, Seed and Small Seeds Boxes.*

## WARRANTY

The Agrowseeder has a warranty for 12 months from the date of sale, against faulty materials and workmanship.

Parts not of Agrowplow manufacture or design, i.e. hydraulic components, rims and tyres etc, are subject to the original manufacturers guarantee and conditions.

In cases where a repair can be considered to come within the scope of the warranty, the owner or his representative must, when placing the order for repair, advise the suppliers that he requires the work to be carried out under the terms of the warranty.

As the use of Agrowplow products is outside our control, we can only guarantee quality and do not accept liability of performance.

A properly completed claim form for each repair must be submitted by the supplier within 4 weeks of the date of repair, and the damaged parts, properly identified, must be despatched to Agrowplows main stores to arrive within 6 weeks of the date of repair.

Agrowplow reserve the right to withdraw the warranty if:-

- a. Non-original parts are fitted
- b. The Agrowseeder is not maintained correctly.
- c. The Agrowseeder is operated incorrectly.
- d. The Agrowseeder is used for purposes other than for which it has been designed.

Agrowplow do not accept liability if any parts other than those listed in the spare parts list are fitted, however it may arise.

Agrowplow reserves the right to improve or change the construction of the Agrowseeder without liability in respect of Agrowseeder previously supplied.

AGROWFLOW WELLINGTON PTY.LTD.

## HOW DOES THE FARMER ACHIEVE MAXIMUM RESULTS FROM THE USE OF THE AGROWSEEDER ?

The owner of an Agrowseeder has in his hands the most modern and accurate equipment for drilling all commercial crops. Attention to the following simple guidelines should enable the owner to get maximum benefits from its use and the highest return from his fields in terms of clean, high yielding crops.

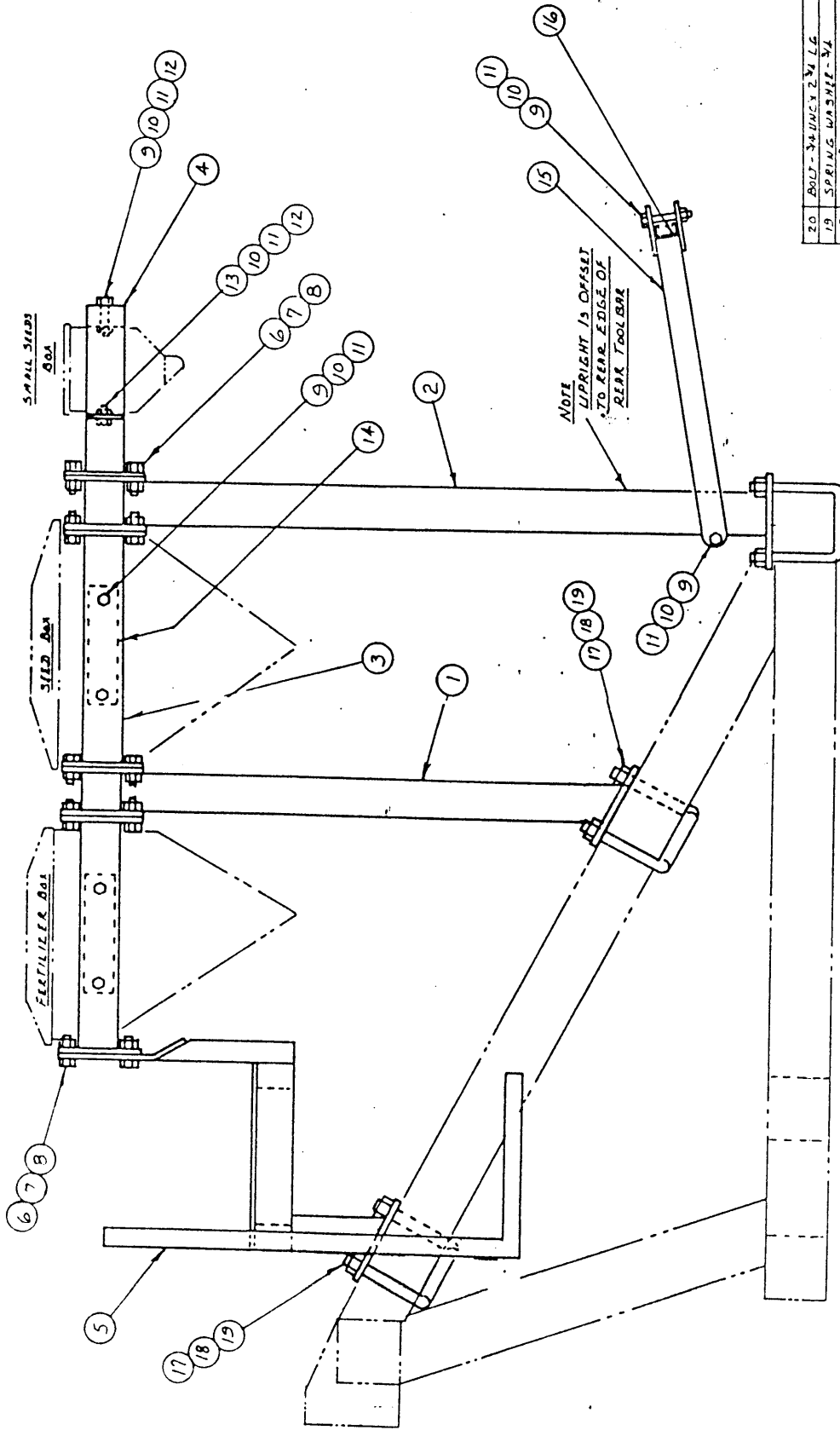
- (a) Timing is important! Most farmers know by experience the value of seeding just at the right time according to season.
- (b) Use only first quality seed and fertilizer! The seeds should be clean. The steady flow to the seed mechanisms cannot be maintained if straw or other impurities are present. Again the fertilizer must not be either lumpy or wet. Use only granulated fertilizer in good condition.
- (c) Calibrate carefully! This is a simple and quick operation on the Agrow-seeder. Make use of it at all times.
- (d) The seed blade is designed to chisel earth from both sides of the groove caused by the digging action. The tip of the seed blade under most conditions should be placed 50mm (2inches) under natural ground level or at a depth which consistently fills the groove and places the seed at the desired depth.
- (e) Under certain conditions and soil types, such as dry soil of heavy clay, it may be necessary to attach the optional deflector plate or 'D' Ring and trailer (DWG No675) to obtain sowing depth required.
- (f) Do not transport the seeder to the field with the hopper full, because, due to vibration during transport the seed may compact and bridge in the hopper bottom causing damage to the drive and feed mechanism **when sowing begins.**

### AT THE END OF THE SEASON

After use, the boxes should be carefully cleaned and stored in a dry place. Before storing, the bottom traps must be adjusted.

When the bottom trap lever is set in notch 1, there must be maximum 1mm clearance between the traps and pegs on the feed rollers. In the event of any parts being worn, ensure that these are replaced.

After having made the above adjustments, the bottom traps are to be fully opened.



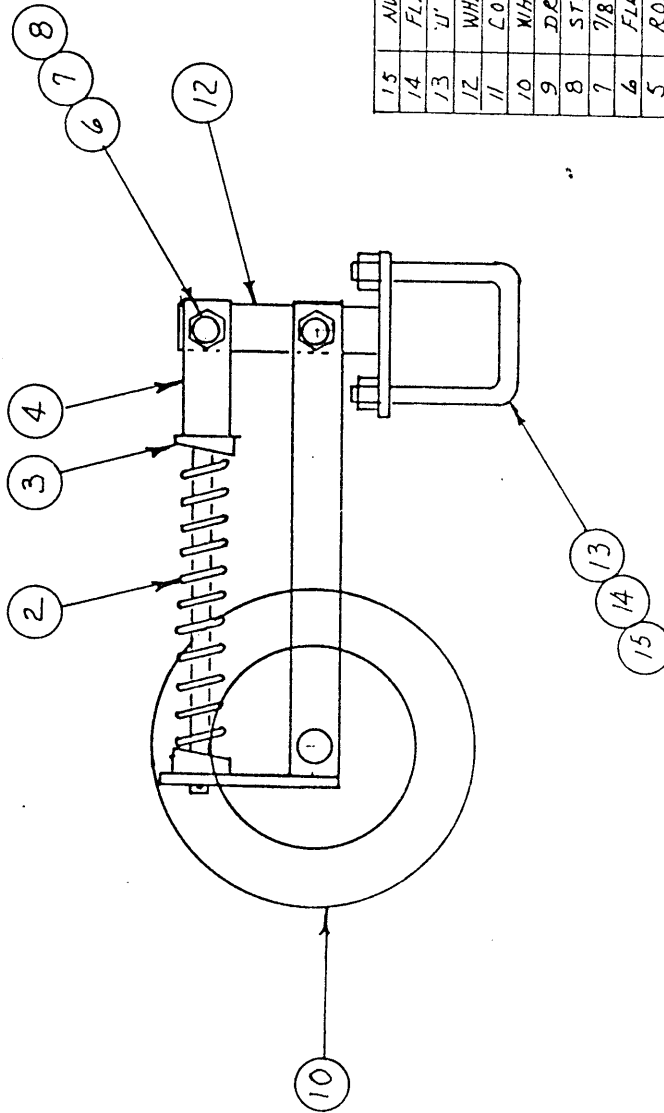
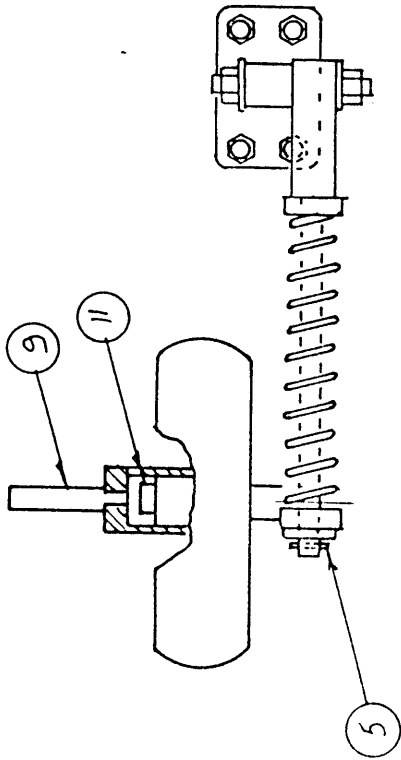
| ITEM | DESCRIPTION                  | QTY | UNIT | REMARKS |
|------|------------------------------|-----|------|---------|
| 1    | FRONT FRAME                  | 1   | 6/6  |         |
| 2    | REAR FRAME                   | 1   | 5/6  |         |
| 3    | SIDE MEMBER                  | 4   | 5/6  |         |
| 4    | FRAME - SMALL SEEDS DOZ      | 1   | 5/6  |         |
| 5    | PLATFORM                     | 1   | 4/2  |         |
| 6    | BOLT - 5/8 IN DIA X 1 1/2 LG | 10  | 2/7  |         |
| 7    | NUT - 5/8 IN DIA             | 10  | 2/7  |         |
| 8    | SPRING WASHER - 5/8          | 10  | 4/0  |         |
| 9    | BOLT - 3/8 IN DIA X 2 1/4 LG | 14  | 20/3 |         |
| 10   | NUT - 3/8 IN DIA             | 14  | 15/1 |         |
| 11   | SPRING WASHER - 3/8          | 14  | 20/4 |         |
| 12   | PLAT WASHER - 3/8            | 4   | 20/0 |         |
| 13   | BOLT - 3/8 IN DIA X 1 1/2 LG | 2   | 13/2 |         |
| 14   | BACKING PLATE                | 4   | 55/8 |         |
| 15   | SUPPORT ARM                  | 2   | 57/2 |         |
| 16   | UNIT - STEUT                 | 1   | 5/61 |         |
| 17   | 3/4" BOLT                    | 6   | 22/0 |         |
| 18   | NUT - 3/4 IN DIA             | 12  | 3/6  |         |
| 19   | SPRING WASHER - 3/4          | 12  | 57   |         |
| 20   | BOLT - 3/4 IN DIA X 2 1/4 LG | 2   | 60   |         |

**AGROW FLOW**  
 PTY LIMITED  
 P.O. BOX 270, WELLINGTON NEW AUSTRALIA 7020

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DRAWN: B.H.  
 CHECKED: B.H.  
 SCALE: 1:5  
 DATE: 3/1/83  
 DRAWING NUMBER: 410





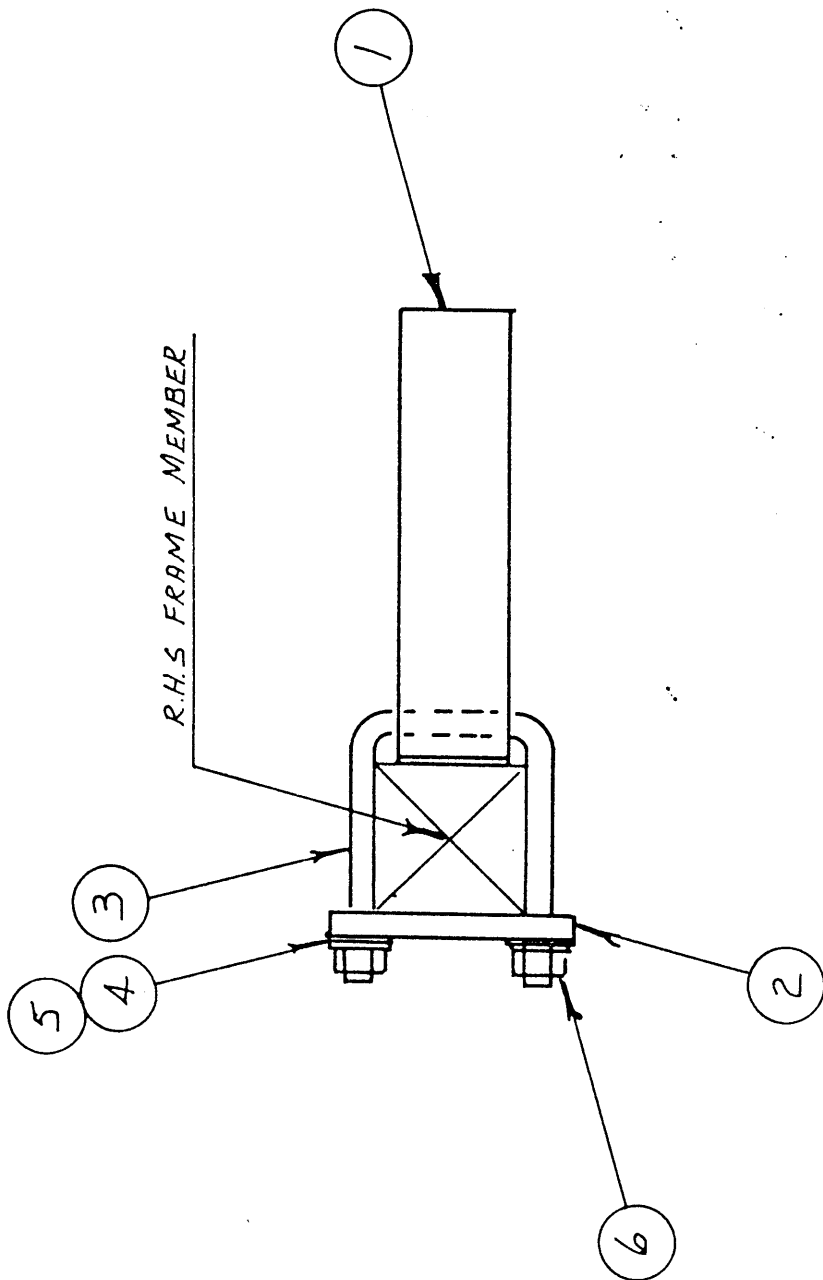
NOTE  
 1/ USED ON API RIGID MACHINES  
ONLY  
 2/ SEE DWG.# 676 FOR API  
SPRING JUMP MACHINE DRIVE WHEEL  
ASSEMBLY

| ITEM | DESCRIPTION                 | REQD | MATERIAL | REMARKS |
|------|-----------------------------|------|----------|---------|
| 15   | NUT-3/4 UNC                 | 4    |          | 56      |
| 14   | FLAT WASHER-3/4"            | 4    |          | 30      |
| 13   | U' BOLT-3/4 UNC X 6 1/2 LG. | 2    |          | 220     |
| 12   | WHEEL SUPPORT WELD ASSY     | 1    |          | 640     |
| 11   | COLLAR                      | 1    |          | 607     |
| 10   | WHEEL                       | 1    |          | 606     |
| 9    | DRIVE HUB WELD ASSY         | 1    |          | 605     |
| 8    | STEP STUD                   | 2    |          | 355     |
| 7    | 7/8 UNC NUT                 | 4    |          | 358     |
| 6    | FLAT WASHER-7/8             | 4    |          | 357     |
| 5    | ROLL PIN-7/16X1 1/2         | 1    |          | 29      |
| 4    | SPRING ROD ASSY             | 1    |          | 604     |
| 3    | SPRING KEEPER               | 2    |          | 11      |
| 2    | COMPRESSION SPRING          | 1    |          | 603     |
| 1    | WHEEL ARM WELD ASSY         | 1    |          | 602     |

UNLESS OTHERWISE SPECIFIED  
 ALL DIMENSIONS ARE IN MILLIMETERS  
 TOLERANCES FOR STRUCTURAL DIMS : 2,  
 TOLERANCES FOR FINISHED DIMS : 0.5,  
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|                                                                          |      |                       |        |        |
|--------------------------------------------------------------------------|------|-----------------------|--------|--------|
| DRIVE WHEEL ASSY<br>API SEEDER                                           |      | SCALE                 | PASSED | DATE   |
|                                                                          |      | 1:5                   |        | 6-2-84 |
| DRAWN                                                                    | B.H. | CHECKED               |        |        |
| TRACED                                                                   |      |                       |        |        |
| AGROW PLOW<br>PTY LIMITED<br>P.O. BOX 270, WELLINGTON NSW AUSTRALIA 2870 |      | DRAWING NUMBER<br>638 |        |        |

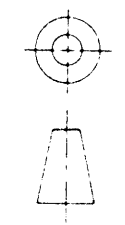


|                    |                         |         |          |                |        |
|--------------------|-------------------------|---------|----------|----------------|--------|
| 6                  | NUT - 5/8 UNC           | 4       |          | 27             |        |
| 5                  | SPRING WASHER - 5/8     | 4       |          | 40             |        |
| 4                  | FLAT WASHER - 5/8       | 4       |          | 33             |        |
| 3                  | U' BOLT - 5/8 UNC       | 2       |          | 210            |        |
| 2                  | CLAMP PLATE             | 1       |          | 563            |        |
| 1                  | WHEEL SCRAPER WELD ASSY | 1       |          | 613            |        |
| ITEM               | DESCRIPTION             | REQ'D   | MATERIAL | REMARKS        |        |
| WHEEL SCRAPER ASSY |                         |         |          |                |        |
| AP1                |                         |         |          |                |        |
|                    |                         | SCALE   |          | PASSED         | DATE   |
|                    |                         | 1:5     |          |                | 1-2-85 |
|                    |                         | DRAWN   | B.H.     | DRAWING NUMBER |        |
|                    |                         | TRACED  |          |                |        |
|                    |                         | CHECKED |          |                |        |
|                    |                         | 614     |          |                |        |

|                                                                                       |                                 |
|---------------------------------------------------------------------------------------|---------------------------------|
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| P.O. BOX 270, WELLINGTON NSW AUSTRALIA 2820                                           |                                 |

MATERIAL

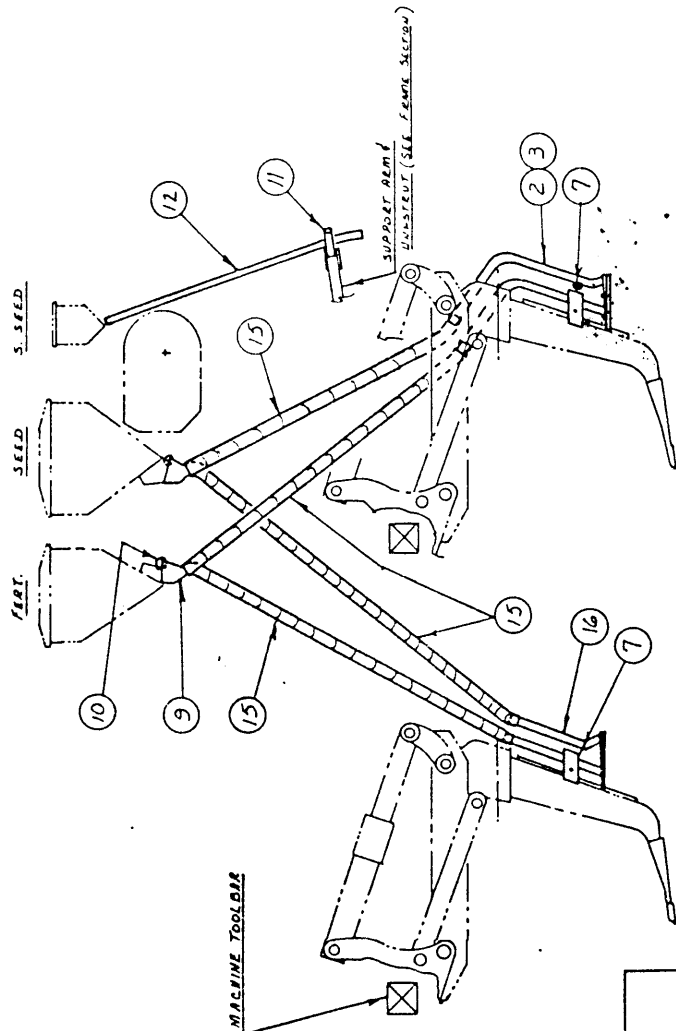
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 TOLERANCES FOR MACHINED DIMS : 0.5  
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 PTY LIMITED  
 P.O. BOX 270, WELLINGTON NSW AUSTRALIA 2820

# HYDRAULIC RECOIL MACHINES



NOTE  
L.H. SEED BLADE ASSEMBLIES ARE TO BE FITTED  
TO SHAFTS LEFT OF THE CENTRE OF THE MACHINE  
AS VIEWED FROM THE REAR FACING THE DIRECTION  
OF TRAVEL

| ITEM | DESCRIPTION                 | QTY | UNIT PRICE | TOTAL PRICE | REMARKS |
|------|-----------------------------|-----|------------|-------------|---------|
| 1/6  | SEED BLADE ASSY - FRONT     | 674 |            |             |         |
| 15   | P 32 HOSE (TOTAL REQD)      | 666 |            |             |         |
| 14   | P 32 HOSE (TOTAL REQD)      | 666 |            |             |         |
| 15   | P 32 HOSE (TOTAL REQD)      | 666 |            |             |         |
| 17   | P 32 HOSE (TOTAL REQD)      | 666 |            |             |         |
| 12   | P 3/4 HOSE (TOTAL REQD)     | 664 |            |             |         |
| 11   | MOSE CLAMP - COMPLETE       | 663 |            |             |         |
| 10   | CABLE TIE                   | 662 |            |             |         |
| 9    | FEED RUP                    | 589 |            |             |         |
| 8    | CLAMP ASSY - SMALL SWANK    | 667 |            |             |         |
| 7    | CLAMP ASSY - LARGE SWANK    | 668 |            |             |         |
| 6    | SEED BLADE ASSY - R.H. REAR | 669 |            |             |         |
| 5    | SEED BLADE ASSY - L.H. REAR | 670 |            |             |         |
| 4    | SEED BLADE ASSY - FRONT     | 671 |            |             |         |
| 3    | SEED BLADE ASSY - R.H. REAR | 672 |            |             |         |
| 2    | SEED BLADE ASSY - L.H. REAR | 673 |            |             |         |
| 1    | SEED BLADE ASSY - STRAIGHT  | 674 |            |             |         |
| ITEM | DESCRIPTION                 | QTY | UNIT PRICE | TOTAL PRICE | REMARKS |
| 1    | SEED BLADE ASSY - STRAIGHT  | 674 |            |             |         |
| 2    | SEED BLADE ASSY - L.H. REAR | 673 |            |             |         |
| 3    | SEED BLADE ASSY - R.H. REAR | 672 |            |             |         |
| 4    | SEED BLADE ASSY - FRONT     | 671 |            |             |         |
| 5    | SEED BLADE ASSY - L.H. REAR | 670 |            |             |         |
| 6    | SEED BLADE ASSY - R.H. REAR | 669 |            |             |         |
| 7    | CLAMP ASSY - LARGE SWANK    | 668 |            |             |         |
| 8    | CLAMP ASSY - SMALL SWANK    | 667 |            |             |         |
| 9    | FEED RUP                    | 589 |            |             |         |
| 10   | CABLE TIE                   | 662 |            |             |         |
| 11   | MOSE CLAMP - COMPLETE       | 663 |            |             |         |
| 12   | P 3/4 HOSE (TOTAL REQD)     | 664 |            |             |         |
| 17   | P 32 HOSE (TOTAL REQD)      | 666 |            |             |         |
| 15   | P 32 HOSE (TOTAL REQD)      | 666 |            |             |         |
| 14   | P 32 HOSE (TOTAL REQD)      | 666 |            |             |         |
| 15   | P 32 HOSE (TOTAL REQD)      | 666 |            |             |         |
| 1/6  | SEED BLADE ASSY - FRONT     | 674 |            |             |         |

**AGROW PLOW**  
PTY LIMITED  
PO BOX 310 WELINGTON NSW AUSTRALIA 2200

**ALL SEEDERS**  
SEE D BLADES & HOSE ASSY

**AGROW PLOW**  
PTY LIMITED  
PO BOX 310 WELINGTON NSW AUSTRALIA 2200

**ALL SEEDERS**  
SEE D BLADES & HOSE ASSY

**AGROW PLOW**  
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# NOTE

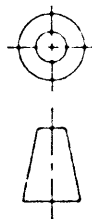
DEFLECTOR PLATE HAS BEEN DESIGNED FOR USE ON BOTH LARGE & SMALL SHANKS IN DRY OR ADVERSE SOIL CONDITIONS. & WILL PREVENT SEEDS FROM BEING PLACED TOO DEEP IN SOIL

# NOTE

"D'RING & TRAILER HAS BEEN DESIGNED FOR USE ON BOTH LARGE & SMALL SHANKS. IT IS USED PRIMARILY ON SPRING JUMP MACHINES IN PASTURE RENOVATION TO MINIMIZE THE ADVERSE EFFECT OF SHANK "LAYBACK" CAUSED BY UNSUITABLE SOWING CONDITIONS.

UNLESS OTHERWISE SPECIFIED

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MATERIAL

OPTIONAL EXTRAS  
(SEEDING BLADE)

**AGROW PLOVER**  
PTY LIMITED  
P.O. BOX 270, WELLINGTON NSW AUSTRALIA 2820

DATE

11-2-85

DRAWING NUMBER

675

SCALE

1/175

DRAWN

BH

PASSED

TRACED

CHECKED

DESCRIPTION

REQ'D

MATERIAL

REMARKS

4 CLIP ASSY-COMplete (LARGE)

1

658

3 CLIP ASSY-COMplete (SMALL)

1

657

2 D'RING & TRAILER ASSY

1

648

1 DEFLECTOR PLATE ASSY

1

652

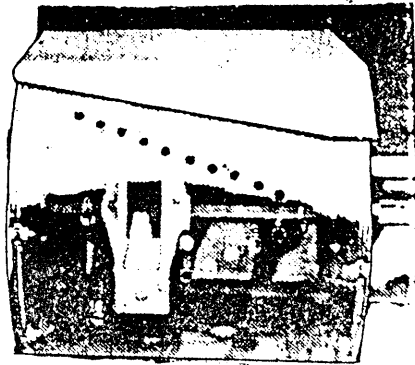
## D 78 SEED BOX

THIS BOX IS DESIGNED FOR SOWING A WIDE RANGE OF CROPS FROM LARGE SEEDS ; SUCH AS BEANS, TO CEREALS AND SMALL SEEDS, AND ALSO WORKS WELL ON FERTILIZER. THE METERING AND APPLICATION RATE IS ACHIEVED BY NYLON PEG WHEELS . THE RATE IS ACHIEVED BY MEANS OF A GEAR BOX AND FOUR ALTERNATIVE SOWING GEARS

## CALIBRATION OF AGROWSEEDER

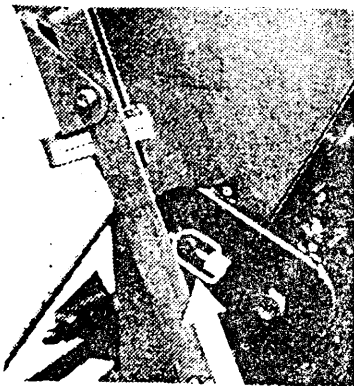
Using seed tables supplied, look up rate required in kilos/hectare. The left hand column of the tables is the gearbox setting, above the three rate columns are the gear wheels that must be on the sowing shaft. Below the rate columns are the settings for the shutoff plate, bottom trap and agitator drive.

As an example, to sow 55 kilos/hectare of oats, gearbox setting will be 10, shut off plate fully open, bottom trap 2-3, agitator drive engaged and 30 tooth gear on sowing shaft.

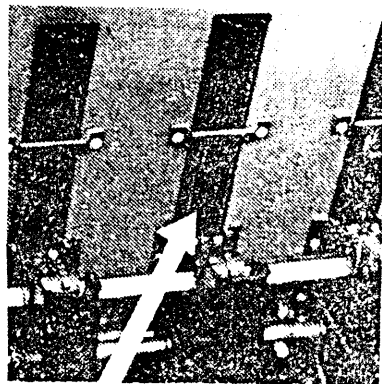


Gear box and gear box lever

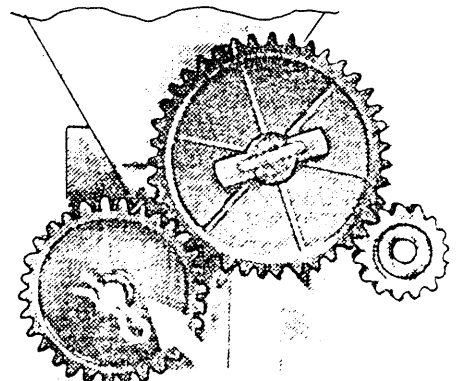
Remove the guard at the gearbox end of seeder and check that the gear on the sowing shaft is the one stated in the sowing table you are using. When sowing granulated fertiliser the agitator shaft must be disengaged, this is done by removing linch pin from the casing connecting the sowing shaft to the agitator shaft.



Linch pin for agitator shaft  
Handle for bottom trap pos'



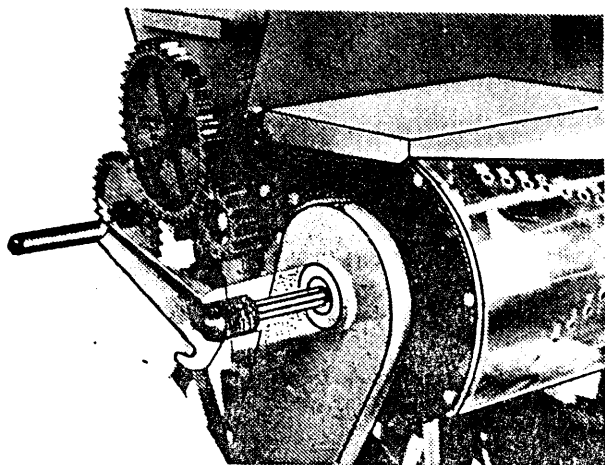
Shut off plate .



30t gear wheel

### NOTE

Do not transport the drill to the field with the hopper full, because, due to vibration during transport the seed may compact and bridge in the hopper bottom causing damage to the drive and feed mechanism when sowing begins.



The calibration handle, which is supplied with seeder is fitted to the gearbox as shown in illustration. Turn the handle a number of turns to ensure that seed is fed from all feed wheels. Place a suitable container at end of seed tubes to collect seed.

#### EXAMPLE OF CALIBRATION :

184 kg wheat is required per hectare  
 lever is place in no. 8  
 Gear wheel on the sowing shaft (30T)  
 Shut off plates : top position  
 Bottom trap handle : Notch 2.

#### CONTROL OF CALIBRATION :

Turn the calibration handle one twentieth of the number of turns stated in the control table below, to equal one hectare. Weigh the seed collected and multiply by 20. This will give the sowing quantity with your seed drill for one hectare.

If the quantity is less than required, repeat the procedure with the gearbox set in a higher gear, for example from setting no. 8 to no.9. If the result is more than required, repeat with gearbox set to lower gear (from 8 to 7). After calibration the collecting tray is removed, the seed tubes repositioned and the collecting tray is replaced in position as a windshield.

After such adjustments, repeat the calibration, until the correct sowing quantity has been achieved.

#### CONTROL TABLE FOR USE WITH CALIBRATION :

| NO SHANKS<br>AP1 & AP2<br>UTILITY |   | TURNS OF THE<br>CALIBRATION<br>HANDLE PER<br>HECTARE |         | 1/20<br>TURNS |         | TURNS OF THE<br>CALIBRATION<br>HANDLE PER<br>ACRE |         | 1/8<br>TURNS |         |
|-----------------------------------|---|------------------------------------------------------|---------|---------------|---------|---------------------------------------------------|---------|--------------|---------|
| =                                 | = | UTE                                                  | AP1 AP2 | UTE           | AP1 AP2 | UTE                                               | AP1 AP2 | UTE          | AP1 AP2 |
| 5                                 |   | 2600                                                 | 2059    | 130           | 103     | 1052                                              | 834     | 132          | 104     |
| 7                                 |   | 1857                                                 | 1717    | 93            | 86      | 752                                               | 695     | 94           | 87      |
| 9                                 |   | 1446                                                 | 1336    | 72            | 67      | 585                                               | 541     | 73           | 68      |
| 11                                |   | 1183                                                 | 1093    | 59            | 55      | 479                                               | 443     | 60           | 55      |
| 13                                |   |                                                      | 925     |               | 46      |                                                   | 374     |              | 47      |
| 15                                |   |                                                      | 801     |               | 40      |                                                   | 324     |              | 41      |

#### REMEMBER !!

WHEN DOING 1/20 OR 1/8 OF THE STATED TURNS PER HECTARE OR PER ACRE  
 MULTIPLY THE QUANTITY WEIGHED BY 20 OR 8.

P.S. If the drill is fitted with a hectare meter it can be used for calibration  
 to save counting the turns of the handle.

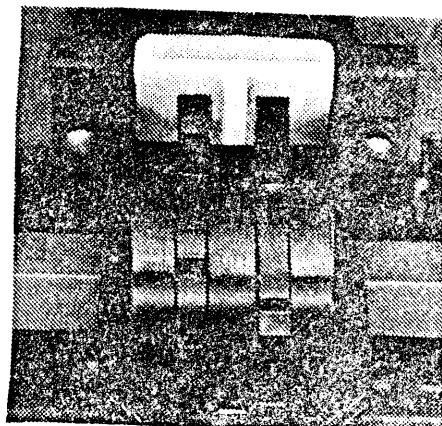
THE FIGURES GIVEN IN THE SOWING TABLES HAVE TO BE USED AS A GUIDE ONLY, THEY WILL SAVE TIME WHEN CALIBRATING THE DRILL.  
CHECK FREQUENTLY THAT THE REQUIRED APPLICATION RATE IS BEING SOWN (BY CHECKING SEED USED AGAINST AREA DRILLED).  
THE SOWING RATE MAY VARY WHEN WORKING UP AND DOWN STEEP SLOPES.  
TO OBTAIN THE BEST SOWING, ENSURE THAT THE INSTRUCTIONS GIVEN IN THE SOWING TABLE ARE FOLLOWED

#### OPTIONAL EQUIPMENT:

As stated in the sowing table 3-finger attachments must be fitted on the sowing wheels when sowing certain seeds (e.g. Lucerne, Grass seeds).

A. 3-finger attachment fitted on the peg type sowing wheel.

Part No. 3.11225.013.



#### FITTING OF THE 3 FINGER ATTACHMENT:

1. Place the attachment on the seed wheel in such a way that the 3-fingers are placed in the grooves between the peg rows and the closed end of the attachment turning against the feed cup housing.

2. Push the attachment so that the 3-fingers are now positioned below and between the bottom trap and the seed wheel. The closed end of the attachment rests against the seed hopper.

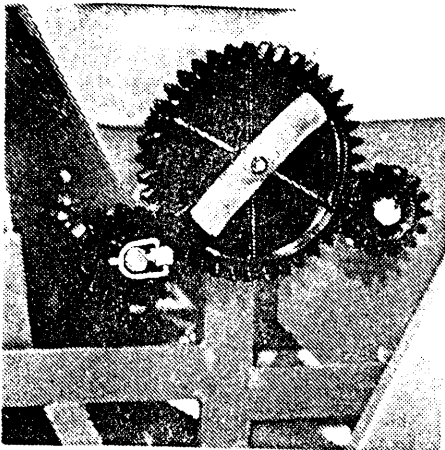
The fitting is facilitated when the handle for the bottom traps is placed in notch 4 (remember to replace it in 1).

#### COUNTER

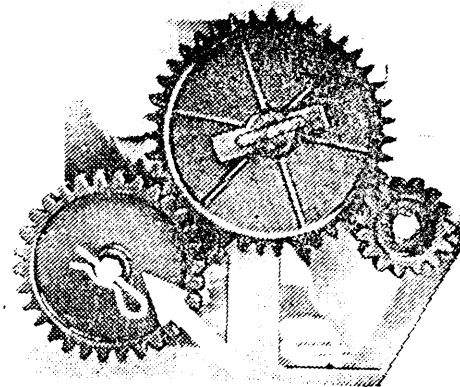
Counter will give hectares and acres by dividing numbers shown on counter by number in table for your machine taking care to use appropriate column for hectares or acres,

ie: Counter showing 52064 therefor  $52064 \div 965 = 53.95$  is the number of hectares sown by a 7 shank utility

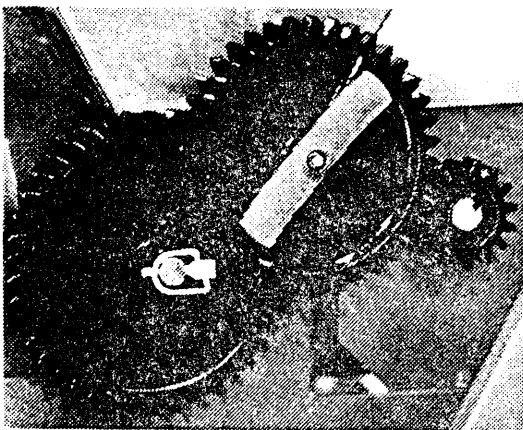
| Number of shanks | Utility Plows |       | AP1&AP2 Plows |       |
|------------------|---------------|-------|---------------|-------|
|                  | Hectares      | Acres | Hectares      | Acres |
| 5                | 1352          | 547   | 1070          | 433   |
| 7                | 965           | 391   | 892           | 361   |
| 9                | 752           | 304   | 695           | 281   |
| 11               | 615           | 249   | 568           | 230   |
| 13               |               |       | 481           | 195   |
| 15               |               |       | 417           | 169   |



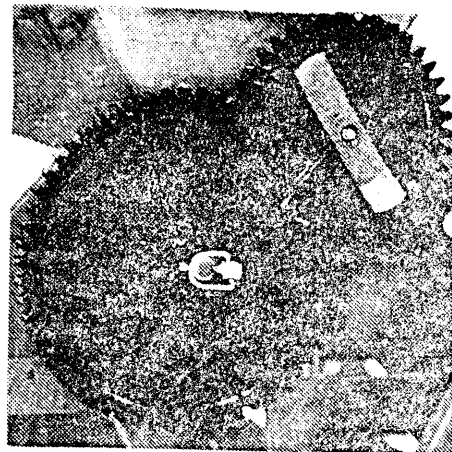
15 tooth gear on sowing shaft  
(extremely large quantities)



30 tooth gear on sowing shaft  
(normal quantities)



42 tooth gear on sowing shaft  
(small quantities)



58 tooth gear on sowing shaft  
(extremely small quantities)

15 tooth gear and 58 tooth gear are optional extras

The gear box has 20 ratios and with 2 change wheels provided for use on the sowing shaft it gives a total of 40 settings, and the additional two gear wheels allow for a total of 80 settings.

SOWING TABLES FOR 30.5cm (12") ROW SPACINGS IN KILOGRAMMES PER HECTARE

| BARLEY                    |                                        |                        |                                        | OATS                   |                                        | WHEAT                  |                                        |
|---------------------------|----------------------------------------|------------------------|----------------------------------------|------------------------|----------------------------------------|------------------------|----------------------------------------|
| Gearbox lever position    | Gearwheel on sowing shaft 30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft 30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft 30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft 30t 42t 58t* |
| 1                         | 36 7.2 5.7                             | 1                      | 26 5.1 4.0                             | 1                      | 43 8.5 6.6                             | 1                      | 43 8.5 6.6                             |
| 2                         | 38 7.6 6.0                             | 2                      | 27 5.4 4.2                             | 2                      | 45 9.1 7.1                             | 2                      | 45 9.1 7.1                             |
| 3                         | 41 8.2 6.4                             | 3                      | 29 5.7 4.5                             | 3                      | 49 9.8 7.7                             | 3                      | 49 9.8 7.7                             |
| 4                         | 44 8.7 6.8                             | 4                      | 31 6.2 4.9                             | 4                      | 51 10.2 8.0                            | 4                      | 51 10.2 8.0                            |
| 5                         | 46 9.3 7.2                             | 5                      | 33 6.7 5.2                             | 5                      | 56 11.1 8.7                            | 5                      | 56 11.1 8.7                            |
| 6                         | 51 10.2 8.0                            | 6                      | 36 7.2 5.7                             | 6                      | 60 12.0 9.4                            | 6                      | 60 12.0 9.4                            |
| 7                         | 56 11.1 8.7                            | 7                      | 40 8.0 6.2                             | 7                      | 66 13.1 10.3                           | 7                      | 66 13.1 10.3                           |
| 8                         | 61 12.3 9.6                            | 8                      | 43 8.7 6.8                             | 8                      | 72 14.5 11.3                           | 8                      | 72 14.5 11.3                           |
| 9                         | 66 13.5 10.6                           | 9                      | 48 9.7 7.6                             | 9                      | 80 16.1 12.5                           | 9                      | 80 16.1 12.5                           |
| 10                        | 77 15.4 12.0                           | 10                     | 55 10.9 8.5                            | 10                     | 91 18.1 14.1                           | 10                     | 91 18.1 14.1                           |
| 11                        | 81 16.2 12.7                           | 11                     | 58 11.7 9.1                            | 11                     | 97 19.4 15.1                           | 11                     | 97 19.4 15.1                           |
| 12                        | 87 17.4 13.6                           | 12                     | 62 12.4 9.6                            | 12                     | 103 20.6 16.1                          | 12                     | 103 20.6 16.1                          |
| 13                        | 93 18.6 14.5                           | 13                     | 66 13.2 10.3                           | 13                     | 109 21.9 17.1                          | 13                     | 109 21.9 17.1                          |
| 14                        | 100 19.9 15.5                          | 14                     | 70 14.1 11.0                           | 14                     | 117 23.5 18.3                          | 14                     | 117 23.5 18.3                          |
| 15                        | 107 21.4 16.7                          | 15                     | 76 15.3 11.9                           | 15                     | 127 25.4 19.8                          | 15                     | 127 25.4 19.8                          |
| 16                        | 116 23.2 18.1                          | 16                     | 83 16.5 12.9                           | 16                     | 137 27.4 21.4                          | 16                     | 137 27.4 21.4                          |
| 17                        | 127 25.4 19.8                          | 17                     | 90 18.0 14.0                           | 17                     | 150 29.9 23.3                          | 17                     | 150 29.9 23.3                          |
| 18                        | 139 27.9 21.7                          | 18                     | 98 19.7 15.4                           | 18                     | 164 32.8 25.6                          | 18                     | 164 32.8 25.6                          |
| 19                        | 155 30.9 24.1                          | 19                     | 110 22.0 17.1                          | 19                     | 183 36.6 28.6                          | 19                     | 183 36.6 28.6                          |
| 20                        | 174 34.8 27.1                          | 20                     | 122 24.4 19.0                          | 20                     | 205 41.0 32.0                          | 20                     | 205 41.0 32.0                          |
| Position of bottom trap   | 2-3                                    |                        | 2-3                                    |                        | 2-3                                    |                        | 2-3                                    |
| Position of shutoff plate | TOP                                    |                        | TOP                                    |                        | TOP                                    |                        | TOP                                    |
| Agitator drive            | ENGAGED                                |                        | ENGAGED                                |                        | ENGAGED                                |                        | ENGAGED                                |
| Special equipment         | NONE                                   |                        | NONE                                   |                        | NONE                                   |                        | NONE                                   |

SOWING TABLES FOR 30.5 cm (12") ROW SPACINGS IN KILOGRAMMES PER HECTARE

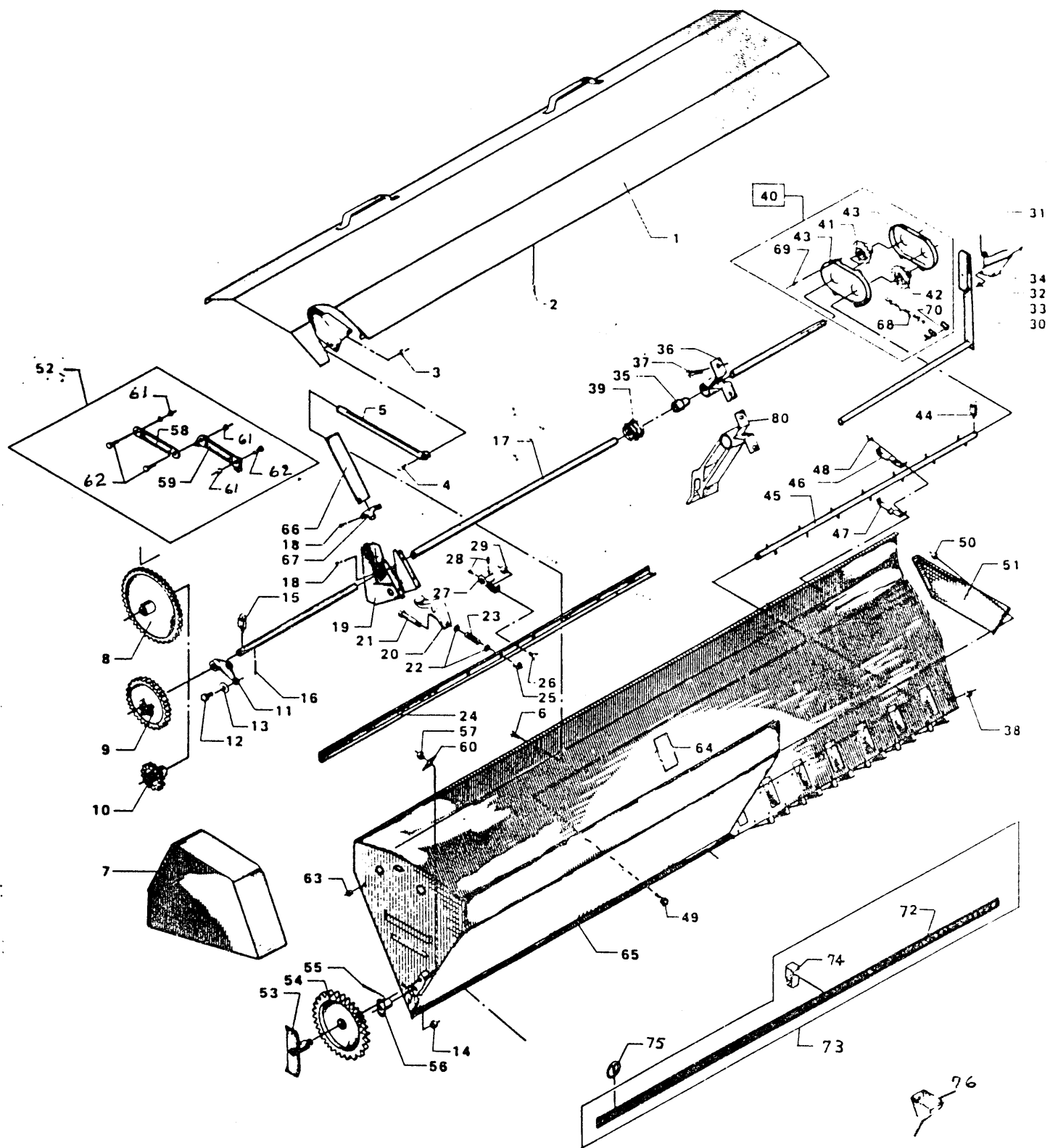
| LAB LAB                   |                                        |                        |                                        | MAIZE                  |                                        |                        |                                        | SOY BEANS              |                                        |                        |                                        |
|---------------------------|----------------------------------------|------------------------|----------------------------------------|------------------------|----------------------------------------|------------------------|----------------------------------------|------------------------|----------------------------------------|------------------------|----------------------------------------|
| Gearbox lever position    | Gearwheel on sowing shaft 30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft 30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft 30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft 30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft 30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft 30t 42t 58t* |
| 1                         | 71 14.2 11.0                           | 1                      | 52 10.5 8.2                            | 1                      | 41 8.2 6.4                             | 1                      | 41 8.2 6.4                             | 1                      | 41 8.2 6.4                             | 1                      | 41 8.2 6.4                             |
| 2                         | 75 15.0 11.7                           | 2                      | 56 11.3 8.8                            | 2                      | 45 9.1 7.1                             | 2                      | 45 9.1 7.1                             | 2                      | 45 9.1 7.1                             | 2                      | 45 9.1 7.1                             |
| 3                         | 79 15.7 12.3                           | 3                      | 59 11.8 9.2                            | 3                      | 51 10.2 7.9                            | 3                      | 51 10.2 7.9                            | 3                      | 51 10.2 7.9                            | 3                      | 51 10.2 7.9                            |
| 4                         | 85 17.0 13.3                           | 4                      | 64 12.9 10.0                           | 4                      | 54 10.8 8.4                            | 4                      | 54 10.8 8.4                            | 4                      | 54 10.8 8.4                            | 4                      | 54 10.8 8.4                            |
| 5                         | 92 18.3 14.3                           | 5                      | 70 13.9 10.9                           | 5                      | 57 11.5 8.9                            | 5                      | 57 11.5 8.9                            | 5                      | 57 11.5 8.9                            | 5                      | 57 11.5 8.9                            |
| 6                         | 100 20.0 15.6                          | 6                      | 73 14.7 11.5                           | 6                      | 61 12.1 9.5                            | 6                      | 61 12.1 9.5                            | 6                      | 61 12.1 9.5                            | 6                      | 61 12.1 9.5                            |
| 7                         | 109 21.8 17.0                          | 7                      | 80 16.0 12.5                           | 7                      | 67 13.4 10.5                           | 7                      | 67 13.4 10.5                           | 7                      | 67 13.4 10.5                           | 7                      | 67 13.4 10.5                           |
| 8                         | 119 23.8 18.5                          | 8                      | 89 17.8 13.9                           | 8                      | 74 14.7 11.5                           | 8                      | 74 14.7 11.5                           | 8                      | 74 14.7 11.5                           | 8                      | 74 14.7 11.5                           |
| 9                         | 132 26.4 20.6                          | 9                      | 102 20.5 16.0                          | 9                      | 79 15.8 12.3                           | 9                      | 79 15.8 12.3                           | 9                      | 79 15.8 12.3                           | 9                      | 79 15.8 12.3                           |
| 10                        | 150 29.9 23.3                          | 10                     | 112 22.3 17.4                          | 10                     | 92 18.4 14.4                           | 10                     | 92 18.4 14.4                           | 10                     | 92 18.4 14.4                           | 10                     | 92 18.4 14.4                           |
| 11                        | 159 31.9 24.9                          | 11                     | 119 23.9 18.6                          | 11                     | 98 19.7 15.4                           | 11                     | 98 19.7 15.4                           | 11                     | 98 19.7 15.4                           | 11                     | 98 19.7 15.4                           |
| 12                        | 172 34.5 26.9                          | 12                     | 123 24.7 19.2                          | 12                     | 105 21.0 16.4                          | 12                     | 105 21.0 16.4                          | 12                     | 105 21.0 16.4                          | 12                     | 105 21.0 16.4                          |
| 13                        | 181 36.1 28.2                          | 13                     | 135 27.0 21.1                          | 13                     | 111 22.3 17.4                          | 13                     | 111 22.3 17.4                          | 13                     | 111 22.3 17.4                          | 13                     | 111 22.3 17.4                          |
| 14                        | 193 38.6 30.1                          | 14                     | 144 28.9 22.5                          | 14                     | 120 24.0 18.7                          | 14                     | 120 24.0 18.7                          | 14                     | 120 24.0 18.7                          | 14                     | 120 24.0 18.7                          |
| 15                        | 206 41.3 32.2                          | 15                     | 155 31.0 24.2                          | 15                     | 128 25.5 19.9                          | 15                     | 128 25.5 19.9                          | 15                     | 128 25.5 19.9                          | 15                     | 128 25.5 19.9                          |
| 16                        | 219 43.8 34.1                          | 16                     | 169 33.9 26.4                          | 16                     | 140 27.9 21.8                          | 16                     | 140 27.9 21.8                          | 16                     | 140 27.9 21.8                          | 16                     | 140 27.9 21.8                          |
| 17                        | 240 48.0 37.5                          | 17                     | 184 36.7 28.7                          | 17                     | 150 30.1 23.5                          | 17                     | 150 30.1 23.5                          | 17                     | 150 30.1 23.5                          | 17                     | 150 30.1 23.5                          |
| 18                        | 272 54.5 42.5                          | 18                     | 203 40.7 31.7                          | 18                     | 165 32.9 25.7                          | 18                     | 165 32.9 25.7                          | 18                     | 165 32.9 25.7                          | 18                     | 165 32.9 25.7                          |
| 19                        | 302 60.4 47.1                          | 19                     | 224 44.9 35.0                          | 19                     | 177 35.5 27.7                          | 19                     | 177 35.5 27.7                          | 19                     | 177 35.5 27.7                          | 19                     | 177 35.5 27.7                          |
| 20                        | 339 67.8 52.9                          | 20                     | 253 50.7 39.5                          | 20                     | 192 38.3 29.9                          | 20                     | 192 38.3 29.9                          | 20                     | 192 38.3 29.9                          | 20                     | 192 38.3 29.9                          |
| Position of bottom trap   | 10-14                                  |                        | 5-8                                    |                        | 5                                      |                        | 5                                      |                        | 5                                      |                        | 5                                      |
| Position of shutoff plate | TOP                                    |                        | TOP                                    |                        | TOP                                    |                        | TOP                                    |                        | TOP                                    |                        | TOP                                    |
| Agitator drive            | ENGAGED                                |                        | ENGAGED                                |                        | ENGAGED                                |                        | ENGAGED                                |                        | ENGAGED                                |                        | ENGAGED                                |
| Special equipment         | NONE                                   |                        | NONE                                   |                        | NONE                                   |                        | NONE                                   |                        | NONE                                   |                        | NONE                                   |

SOWING TABLES FOR 33cm(13") ROW SPACING IN KILOGRAMMES PER HECTARE

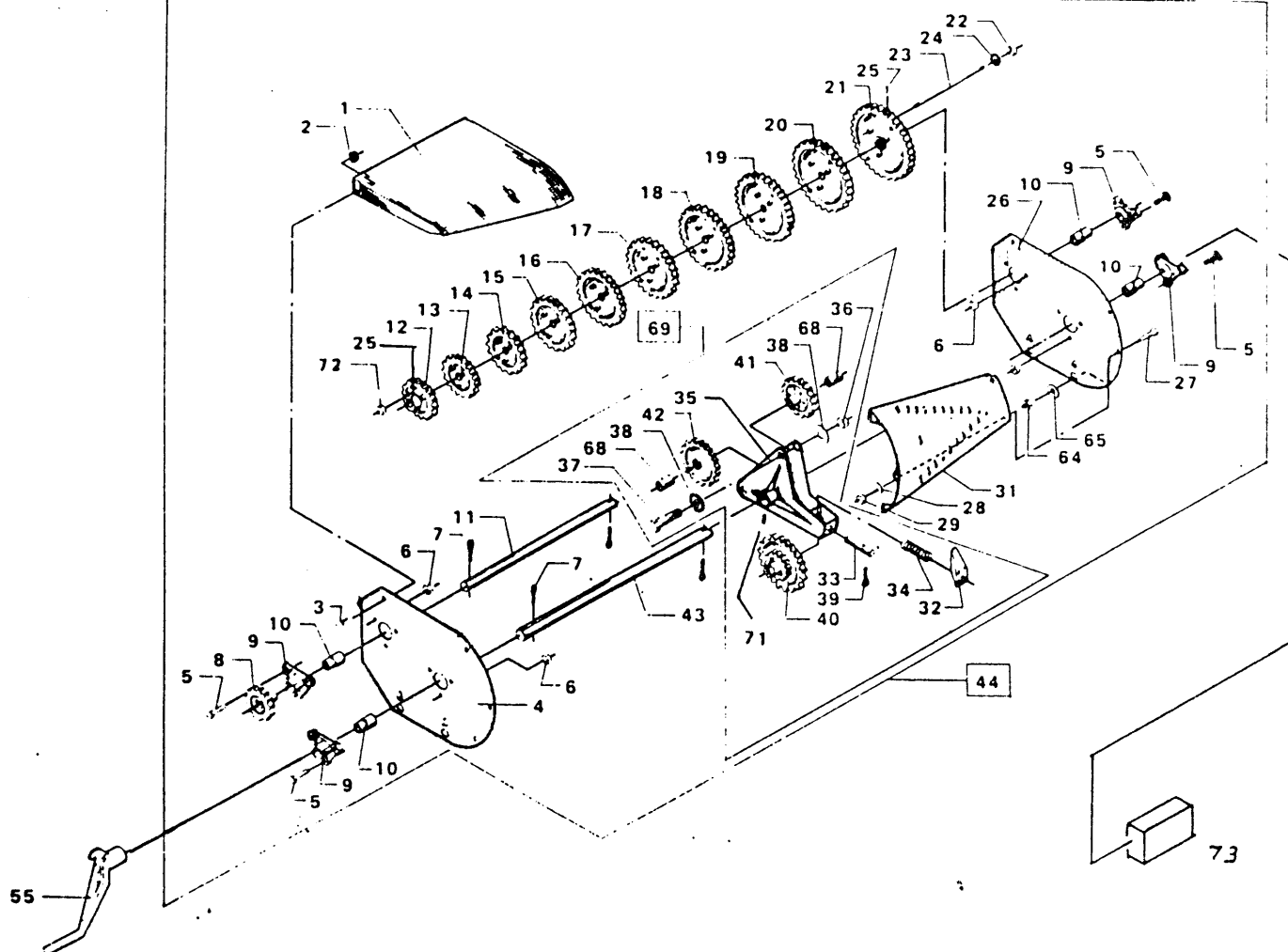
| BARLEY                    |                                           |                        | OATS                                      |                        |                                           | WHEAT                  |                                           |                        |
|---------------------------|-------------------------------------------|------------------------|-------------------------------------------|------------------------|-------------------------------------------|------------------------|-------------------------------------------|------------------------|
| Gearbox lever position    | Gearwheel on sowing shaft<br>30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft<br>30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft<br>30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft<br>30t 42t 58t* | Gearbox lever position |
| 1                         | 33 7.4 5.3                                | 1                      | 24 5.2 4.1                                | 1                      | 39 8.6 6.7                                | 1                      | 39 8.6 6.7                                | 1                      |
| 2                         | 35 7.8 5.6                                | 2                      | 25 5.5 4.3                                | 2                      | 42 9.2 7.2                                | 2                      | 42 9.2 7.2                                | 2                      |
| 3                         | 38 8.3 6.0                                | 3                      | 27 5.8 4.6                                | 3                      | 45 10.0 7.8                               | 3                      | 45 10.0 7.8                               | 3                      |
| 4                         | 40 8.9 6.4                                | 4                      | 29 6.3 4.9                                | 4                      | 47 10.4 8.1                               | 4                      | 47 10.4 8.1                               | 4                      |
| 5                         | 43 9.4 6.8                                | 5                      | 31 6.8 5.3                                | 5                      | 51 11.3 8.8                               | 5                      | 51 11.3 8.8                               | 5                      |
| 6                         | 47 10.4 7.5                               | 6                      | 33 7.4 5.7                                | 6                      | 57 12.5 9.7                               | 6                      | 57 12.5 9.7                               | 6                      |
| 7                         | 51 11.3 8.1                               | 7                      | 37 8.1 6.3                                | 7                      | 61 13.4 10.4                              | 7                      | 61 13.4 10.4                              | 7                      |
| 8                         | 57 12.5 9.0                               | 8                      | 40 8.8 6.9                                | 8                      | 67 14.7 11.5                              | 8                      | 67 14.7 11.5                              | 8                      |
| 9                         | 63 13.8 9.9                               | 9                      | 45 9.8 7.7                                | 9                      | 74 16.3 12.7                              | 9                      | 74 16.3 12.7                              | 9                      |
| 10                        | 71 15.6 11.2                              | 10                     | 51 11.1 8.7                               | 10                     | 84 18.4 14.4                              | 10                     | 84 18.4 14.4                              | 10                     |
| 11                        | 75 16.5 11.9                              | 11                     | 54 11.8 9.2                               | 11                     | 89 19.7 15.4                              | 11                     | 89 19.7 15.4                              | 11                     |
| 12                        | 80 17.7 12.7                              | 12                     | 57 12.6 9.8                               | 12                     | 95 21.0 16.3                              | 12                     | 95 21.0 16.3                              | 12                     |
| 13                        | 86 18.9 13.6                              | 13                     | 61 13.4 10.5                              | 13                     | 101 22.2 17.3                             | 13                     | 101 22.2 17.3                             | 13                     |
| 14                        | 92 20.2 14.6                              | 14                     | 65 14.3 11.2                              | 14                     | 108 23.8 18.6                             | 14                     | 108 23.8 18.6                             | 14                     |
| 15                        | 99 21.8 15.7                              | 15                     | 71 15.5 12.1                              | 15                     | 117 25.8 20.1                             | 15                     | 117 25.8 20.1                             | 15                     |
| 16                        | 107 23.6 17.0                             | 16                     | 76 16.8 13.1                              | 16                     | 127 27.8 21.7                             | 16                     | 127 27.8 21.7                             | 16                     |
| 17                        | 117 25.8 18.5                             | 17                     | 83 18.2 14.2                              | 17                     | 138 30.4 23.7                             | 17                     | 138 30.4 23.7                             | 17                     |
| 18                        | 129 28.3 20.4                             | 18                     | 91 20.0 15.6                              | 18                     | 152 33.4 26.0                             | 18                     | 152 33.4 26.0                             | 18                     |
| 19                        | 143 31.4 22.6                             | 19                     | 101 22.3 17.4                             | 19                     | 169 37.2 29.0                             | 19                     | 169 37.2 29.0                             | 19                     |
| 20                        | 161 35.4 25.5                             | 20                     | 113 24.8 19.3                             | 20                     | 189 41.7 32.5                             | 20                     | 189 41.7 32.5                             | 20                     |
| Position of bottom trap   | 2-3                                       |                        | 2-3                                       |                        | 2-3                                       |                        | 2-3                                       |                        |
| Position of shutoff plate | TOP                                       |                        | TOP                                       |                        | TOP                                       |                        | TOP                                       |                        |
| Agitator drive            | ENGAGED                                   |                        | ENGAGED                                   |                        | ENGAGED                                   |                        | ENGAGED                                   |                        |
| Special equipment         | NONE                                      |                        | NONE                                      |                        | NONE                                      |                        | NONE                                      |                        |

SOWING TABLES FOR 33cm(13") ROW SPACING IN KILOGRAMMES PER HECTARE

| LAB LAB                   |                                           |                        | MAIZE                                     |                        |                                           | SOY BEANS              |                                           |                        |
|---------------------------|-------------------------------------------|------------------------|-------------------------------------------|------------------------|-------------------------------------------|------------------------|-------------------------------------------|------------------------|
| Gearbox lever position    | Gearwheel on sowing shaft<br>30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft<br>30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft<br>30t 42t 58t* | Gearbox lever position | Gearwheel on sowing shaft<br>30t 42t 58t* | Gearbox lever position |
| 1                         | 65 13.0 10.1                              | 1                      | 48 9.6 7.5                                | 1                      | 36 7.6 5.9                                | 1                      | 36 7.6 5.9                                | 1                      |
| 2                         | 68 13.6 10.6                              | 2                      | 52 10.4 8.1                               | 2                      | 42 8.4 6.6                                | 2                      | 42 8.4 6.6                                | 2                      |
| 3                         | 73 14.6 11.4                              | 3                      | 55 11.0 8.6                               | 3                      | 47 9.4 7.3                                | 3                      | 47 9.4 7.3                                | 3                      |
| 4                         | 78 15.6 12.2                              | 4                      | 59 11.8 9.2                               | 4                      | 50 10.0 7.6                               | 4                      | 50 10.0 7.6                               | 4                      |
| 5                         | 84 16.8 13.1                              | 5                      | 64 12.8 10.0                              | 5                      | 53 10.6 8.3                               | 5                      | 53 10.6 8.3                               | 5                      |
| 6                         | 92 18.4 14.4                              | 6                      | 68 13.6 10.6                              | 6                      | 56 11.2 8.7                               | 6                      | 56 11.2 8.7                               | 6                      |
| 7                         | 100 20.0 15.6                             | 7                      | 74 14.8 11.5                              | 7                      | 62 12.4 9.7                               | 7                      | 62 12.4 9.7                               | 7                      |
| 8                         | 109 21.8 17.0                             | 8                      | 82 16.4 12.8                              | 8                      | 68 13.6 10.6                              | 8                      | 68 13.6 10.6                              | 8                      |
| 9                         | 121 24.2 18.9                             | 9                      | 79 15.8 12.3                              | 9                      | 73 14.6 11.4                              | 9                      | 73 14.6 11.4                              | 9                      |
| 10                        | 137 27.4 21.4                             | 10                     | 103 20.6 16.1                             | 10                     | 85 17.0 13.5                              | 10                     | 85 17.0 13.5                              | 10                     |
| 11                        | 146 29.2 22.8                             | 11                     | 111 22.2 17.3                             | 11                     | 91 18.2 14.2                              | 11                     | 91 18.2 14.2                              | 11                     |
| 12                        | 158 31.6 24.6                             | 12                     | 114 22.8 17.8                             | 12                     | 97 19.4 15.1                              | 12                     | 97 19.4 15.1                              | 12                     |
| 13                        | 165 33.0 25.7                             | 13                     | 124 24.8 19.3                             | 13                     | 103 20.6 16.1                             | 13                     | 103 20.6 16.1                             | 13                     |
| 14                        | 177 35.4 27.6                             | 14                     | 133 26.6 20.7                             | 14                     | 111 22.2 17.3                             | 14                     | 111 22.2 17.3                             | 14                     |
| 15                        | 189 37.8 29.5                             | 15                     | 142 28.4 22.2                             | 15                     | 118 23.6 18.4                             | 15                     | 118 23.6 18.4                             | 15                     |
| 16                        | 201 40.2 31.4                             | 16                     | 156 31.2 24.3                             | 16                     | 129 25.8 20.1                             | 16                     | 129 25.8 20.1                             | 16                     |
| 17                        | 220 44.0 34.3                             | 17                     | 170 34.0 26.5                             | 17                     | 139 27.6 21.7                             | 17                     | 139 27.6 21.7                             | 17                     |
| 18                        | 250 50.0 39.0                             | 18                     | 188 37.6 29.3                             | 18                     | 152 30.4 23.7                             | 18                     | 152 30.4 23.7                             | 18                     |
| 19                        | 277 55.4 43.2                             | 19                     | 208 41.6 32.4                             | 19                     | 164 32.8 25.6                             | 19                     | 164 32.8 25.6                             | 19                     |
| 20                        | 311 62.2 48.5                             | 20                     | 233 46.6 36.3                             | 20                     | 177 35.4 27.6                             | 20                     | 177 35.4 27.6                             | 20                     |
| Position of bottom trap   | 10-14                                     |                        | 5-8                                       |                        | 5                                         |                        | 5                                         |                        |
| Position of shutoff plate | TOP                                       |                        | TOP                                       |                        | TOP                                       |                        | TOP                                       |                        |
| Agitator drive            | ENGAGED                                   |                        | ENGAGED                                   |                        | ENGAGED                                   |                        | ENGAGED                                   |                        |
| Special equipment         | NONE                                      |                        | NONE                                      |                        | NONE                                      |                        | NONE                                      |                        |



| <u>Item<br/>number</u> | <u>Part<br/>number</u> | <u>Description</u>                          | <u>Item<br/>number</u> | <u>Part<br/>number</u> | <u>Description</u>                    |
|------------------------|------------------------|---------------------------------------------|------------------------|------------------------|---------------------------------------|
| 1                      | 3.113.657              | Hopper lid 1.50 M                           | 44                     | 4.104.054              | Patent split pin                      |
| 1                      | 3.113.108              | Hopper lid 2.00 M                           | 45                     | 3.126.156              | Agitator shaft 1.50 M                 |
| 1                      | 3.113.464              | Hopper lid 3.00 M                           | 45                     | 3.126.154              | Agitator shaft 2.00 M                 |
| 2                      | 4.130.082              | Steel machine screw M 6x12                  | 45                     | 3.126.170              | Agitator shaft 3.00 M                 |
| 3                      | 4.131.018              | Nut, self-locking M 6                       | 46                     | 4.116.039              | Bearing half, upper                   |
| 4                      | 4.130.083              | Steel machine screw M 6x25                  | 47                     | 4.116.038              | Bearing half lower                    |
| 5                      | 3.140.004              | Spring for lid                              | 48                     | 4.131.020              | Nut, self locking M10                 |
| 6                      | 4.130.090              | Screw B 1114x20                             | 49                     | 4.130.073              | Steel machine screw M 10x20           |
| 7                      | 2.113.009              | Safety, guard                               | 50                     | 4.13.1.020             | Nut, self locking M 10                |
| 8                      | 3.120.023S             | Gear for sowing axle to 42                  | 51                     | 3.113.538              | Divider plates, right                 |
| 9                      | 3.120.022S             | Gear for sowing axle to 42                  | 51                     | 3.113.539              | Divider plates, left                  |
| 10                     | 4.120.062S             | Gear for sowing axle to 15                  | 52                     | 1.100.171              | Spring cpts                           |
| 11                     | 4.116.000S             | Outside bearing for sowing axle             | 53                     | 4.112.005              | Pin for gear wheel                    |
| 12                     | 4.130.070              | Steel machine screw M 8x20                  | 54                     | 3.120.010              | Intermediate gear wheel               |
| 13                     | 4.131.038              | Washer Ø8                                   | 55                     | 4.139.000              | Split pin Ø 4x20                      |
| 14                     | 4.131.019              | Nut, self-locking M 8                       | 56                     | 4.116.040              | Bearing for agitator shaft            |
| 15                     | 4.104.054              | Patent split pin                            | 57                     | 4.131.020              | Nut, self locking M 10                |
| 16                     | 4.139.003              | Split pin Ø 6x30                            | 58                     | 3.140.007              | Spring for lid                        |
| 17                     | 3.126.222              | Sowing axle 1.50 M                          | 59                     | 3.140.008              | Spring with stop                      |
| 17                     | 3.126.206              | Sowing axle 2.00 M                          | 60                     | 4.135.054              | Retaining plate                       |
| 17                     | 3.126.209              | Sowing axle 3.00 M                          | 61                     | 4.131.019              | Nut, self locking M8                  |
| 18                     | 4.132.003              | Tubular rivet DIN 660/10                    | 62                     | 4.130.091              | Lock screw MSP m8x16                  |
| 19                     | 2.133.000              | Feed cup                                    | 63                     | 4.139.027              | DBI-DUT Nr 18                         |
| 20                     | 4.125.039              | Bottom trap                                 | 64                     | 4.113.089              | Inspection plate                      |
| 21                     | 4.130.057              | Steel bolt M 8x70                           | 65                     |                        | Grain hopper (RE) 1.50 M              |
| 22                     | 4.131.043              | Washer Ø,7Ø18x3,5                           | 65                     | 1.100.104              | Grain hopper (RE) 2.00M               |
| 23                     | 4.140.001              | Bottom trap spring                          | 65                     | 1.100.107              | Grain hopper (RE) 3.00 M              |
| 24                     | 3.112.414              | Bottom flap rail 1.50 M                     | 66                     | 3.125.006              | Shut off plate                        |
| 24                     | 3.112.042              | Bottom flap rail 2.00 M                     | 67                     | 4.134.011              | Retainer for shut off plate           |
| 24                     | 3.112.150              | Bottom flap rail 3.00 M                     | 68                     | 4.138.024              | Chain 356mm                           |
| 25                     | 4.131.019              | Nut, self locking M8                        | 69                     | 4.130.088              | Screw B 6x13                          |
| 26                     | 4.130.070              | Steel machine screw M 8x20                  | 70                     | 4.120.117              | Joint link 1/2" x 3/16"               |
| 27                     | 3.135.007              | Retainer                                    | 71                     | 4.130.070              | Bolt M8x25                            |
| 28                     | 4.130.091              | Unbreakscrew MSP 8x20                       | 72                     | 4.112.579              | Frame for conductor tubes 1.50 M      |
| 29                     | 4.131.019              | Nut, self locking M8                        | 72                     | 3.112.369              | Frame fro conductor tubes 2.00 M      |
| 30                     | 3.126.321              | Adjusting axle for bottom traps cpts 1.50 M | 72                     | 3.112.372              | Frame for conductor tubes 3.00 M      |
| 30                     | 3.126.067              | Adjusting axle for bottom traps cpts 2.00 M | 73                     | 1.100.272RE            | Frame fro conductor tubes cpts 2.50 M |
| 30                     | 3.126.079              | Adjusting axle for bottom traps cpts 3.00 M | 73                     | 2.100.037              | Frame for conductor tubes cpts 2.00 M |
| 31                     | 4.140.002              | Spring                                      | 73                     | 2.100.040              | Frame for conductor tubes cpts 3.00 M |
| 32                     | 4.129.056              | Handle for bottom trap lever                | 74                     | 4.135.200              | Hook for conductor tube               |
| 33                     | 4.131.018              | Nut, self locking M6                        | 75                     | 4.140.066              | Ring split pin                        |
| 34                     | 4.130.085              | Steel machine screw M 6x30                  | 76                     | 3.119.025              | Conductor tubes                       |
| 35                     | 4.116.053              | Bushing for bearing                         | 80                     | 2.116.004              | Bearing for sowing axle NY 17         |
| 36                     | 4.116.031S             | Bearing for sowing axle NY 17               |                        |                        |                                       |
| 37                     | 4.130.075              | Steel machine screw M 10x30                 |                        |                        |                                       |
| 38                     | 4.131.020              | Nut, self locking M10                       |                        |                        |                                       |
| 39                     | 4.125.001S             | Feed roller NY 17                           |                        |                        |                                       |
| 40                     | 2.113.018S             | Casing complete                             |                        |                        |                                       |
| 41                     | 4.120.064S             | Sprocket NY 17                              |                        |                        |                                       |
| 42                     | 4.120.063              | Sprocket                                    |                        |                        |                                       |
| 43                     | 4.113.081              | Casing part                                 |                        |                        |                                       |



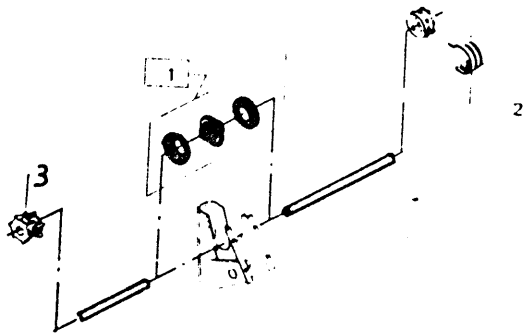
Part No. Description

|    |            |                                |
|----|------------|--------------------------------|
| 1  | 2.116.003  | Lid for gear box               |
| 2  | 4.131.018  | Nut, self-locking M6           |
| 3  | 4.130.069  | Steel machine screw M6x16      |
| 4  | 2.118.012  | Side plate, gear box, r.h.     |
| 5  | 4.130.070  | Steel machine screw M8x20      |
| 6  | 4.131.019  | Nut, self-locking M8           |
| 7  | 4.139.001  | Split pin $\phi 4 \times 30$   |
| 8  | 4.120.050S | Output gear wheel NV 17        |
| 9  | 4.116.002S | Bearing housing NV17           |
| 10 | 4.116.045  | Bushing for bearing            |
| 11 | 3.126.205  | Gearshaft f. gear wheels NV 17 |
| 12 | 4.120.022S | Gear wheel NV 17               |
| 13 | 3.120.011S | Gear wheel NV 17               |
| 14 | 3.120.012S | Gear wheel NV 17               |
| 15 | 3.120.013S | Gear wheel NV 17               |
| 16 | 3.120.014S | Gear wheel NV 17               |
| 17 | 3.120.016S | Gear wheel NV 17               |
| 18 | 3.120.017S | Gear wheel NV 17               |
| 19 | 3.120.018S | Gear wheel NV 17               |
| 20 | 3.120.019S | Gear wheel NV 17               |
| 21 | 4.120.023S | Gear wheel NV 17               |
| 22 | 4.131.048  | Nut, self-locking M5           |
| 23 | 4.130.013  | Stay bolt                      |
| 24 | 4.131.036  | Washer $\phi 5$                |
| 25 | 4.130.091  | Unbrakoscrew MSP 8x16          |
| 26 | 2.118.011  | Side plate, gear box l.h.      |
| 27 | 4.130.084  | Steel machine screw M6x20      |
| 28 | 4.131.037  | Washer $\phi 6$                |
| 29 | 4.131.018  | Nut, self-locking M6           |

Part No. Description

|    |            |                                 |
|----|------------|---------------------------------|
| 31 | 2.118.010  | Selector plate                  |
| 32 | 4.123.032  | Handle                          |
| 33 | 4.132.007  | Catch pin                       |
| 34 | 4.140.003  | Spring                          |
| 35 | 2.123.003S | Gear change lever               |
| 36 | 4.130.021  | Nut, self-locking M12           |
| 37 | 4.130.066  | Steel bolt M12x60               |
| 38 | 4.131.040  | Washer $\phi 12$                |
| 39 | 4.139.000  | Split pin $\phi 4 \times 20$    |
| 40 | 3.120.025S | Intermediate gear wheel NV17    |
| 41 | 4.120.026  | Upper intermediate gear wheel   |
| 42 | 4.120.025  | Lower intermediate gear wheel   |
| 43 | 3.126.204  | Gear shaft f. gear change lever |
| 44 | 1.120.001  | Gearbox cpte. 20 steps          |
| 55 | 3.123.013  | Calibrating handle              |
| 64 | 4.131.020  | Nut, self-locking M 10          |
| 65 | 4.131.039  | Washer $\phi 10$                |
| 68 | 4.116.042  | Bushing f. gear change          |
| 69 | 2.100.006  | Gear change lever cpte.         |
| 71 | 4.139.007  | Grease nipple HZ M6x1           |
| 72 | 4.131.025  | Steel nut M 5                   |
| 73 | 1.100.156  | COUNTER                         |

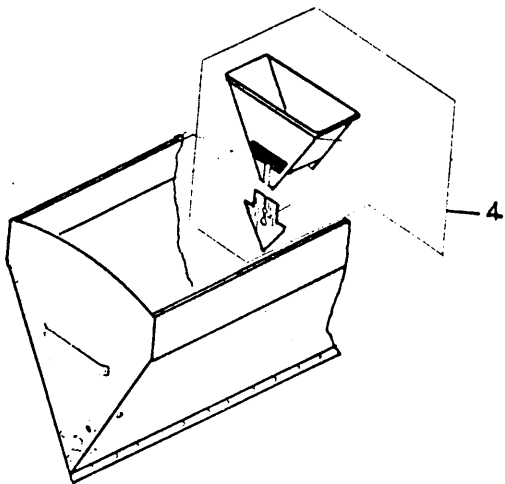
## OPTIONAL ACCESSORIES



- THREE FINGER ATTACHMENT FITS TO STANDARD PEG WHEEL TO REDUCE SOWING RATES.

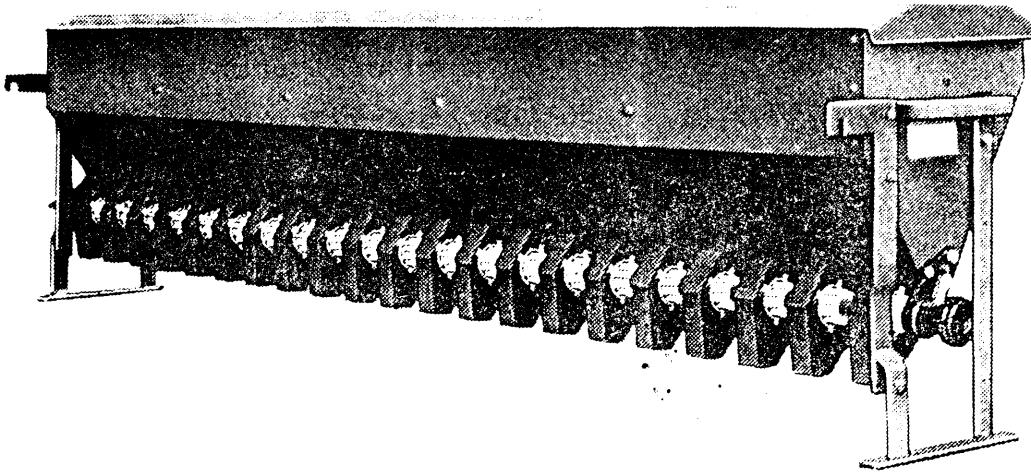
FINE SEED WHEEL REPLACES PEG ROLLER WHEN SOWING SMALL SEEDS.

BEAN WHEEL REPLACES PEG WHEEL WHEN SOWING LARGE SEEDS SUCH AS BEANS.



SMALL SEED HOPPER FITS TO INDIVIDUAL OUTLETS AS REQUIRED.

| ITEM NO. | PART NO.   | DESCRIPTION         |
|----------|------------|---------------------|
| 1        | 4.112.013S | FINE SEED WHEEL     |
| 2        | 3.125.013  | 3-FINGER ATTACHMENT |
| 3        | 3.125.0085 | BEAN WHEEL          |
| 4        | 3.113.274  | SMALL SEED HOPPER   |



FG fertilizer box

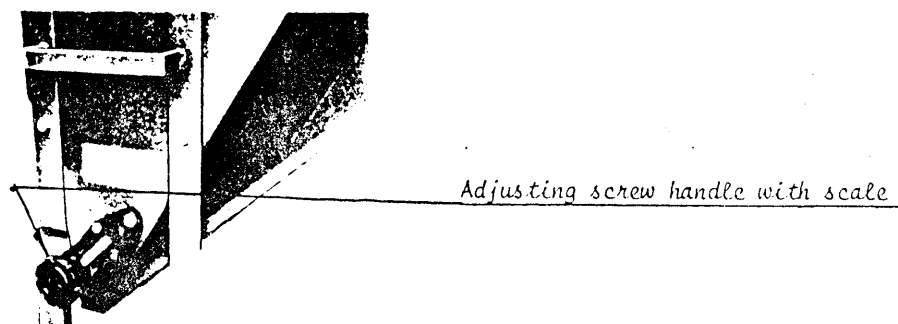
The metering and application rate of fertilizer is achieved by fluted nylon feed rollers, which handle not only granular fertilizer but also cereals.

The desired sowing rate is adjusted by means of an adjusting screw handle with a scale from 0 - 36.

## CALIBRATION OF THE FG FERTILIZER BOX

Proceed as described below:

1. Place a suitable container under each outlet in use.
2. Look in the calibration guide table and find the highest figure closest to the application rate in kilos of fertilizer per hectare you have decided to sow.
3. The left hand column of the sowing table shows the scale number corresponding to the desired application.
4. Set the adjusting screw handle to the scale number. One turn of the handle makes the fluted rollers move 3 mm.



5. Adjust the bottom traps and the shut-off plates as indicated in the calibration guide table.
6. The agitator shaft is put out of operation by taking out the linch pin fitted on the right side of the agitator shaft.
7. Fill the fertilizer box 1/3 with sowing material.
8. The calibration handle is fixed on the gear box input shaft.
9. Turn the handle anti-clockwise a number of turns to ensure that sowing material flows from all feed rollers. Empty the contents of the collecting containers in the box after which calibration can be carried out.
10. Calibrate the sowing material and multiply by 20 or 8.
11. If the calibrated quantity is too high, the application rate can be reduced by turning the screw handle to the left.
12. The sowing quantity can be increased by turning the screw handle to the right.
13. Repeat the calibration until the desired application rate is reached. Mount the fertilizer box on the drill, and fit the drive casings as described.

NOTE: WHEN THERE IS FERTILIZER IN THE BOX IT WILL BE DIFFICULT TO INCREASE THE APPLICATION RATE, OWING TO THE FACT THAT FERTILIZER JAMS BETWEEN THE FLUTED FEED ROLLERS AND THE FEED CUPS. BY TURNING THE SOWING-SHAFT WITH A SPANNER YOU REMOVE SOME OF THE JAMMED FERTILIZER WHICH ENABLES YOU TO TURN THE SCREW-HANDLE A LITTLE AGAIN, REPEAT THIS OPERATION UNTIL THE DESIRED ADJUSTMENT IS REACHED.

## EMPTYING AND MAINTENANCE

Place a suitable container under feed cups. Open the bottom traps by means of the handle fixed on the left side of the box.

The fertilizer box must be emptied after end use, and the bottom traps are to be fully opened. Furthermore, box and sowing shaft should be rinsed thoroughly with water.

The conductor tubes for the fertilizer box should be removed at regular intervals and cleaned in warm water to remove any deposits, thus, ensuring product flow.

The bearings on the long and short cassette should be greased frequently and at least after each sowing season.

# FERTILIZER APPLICATION RATE

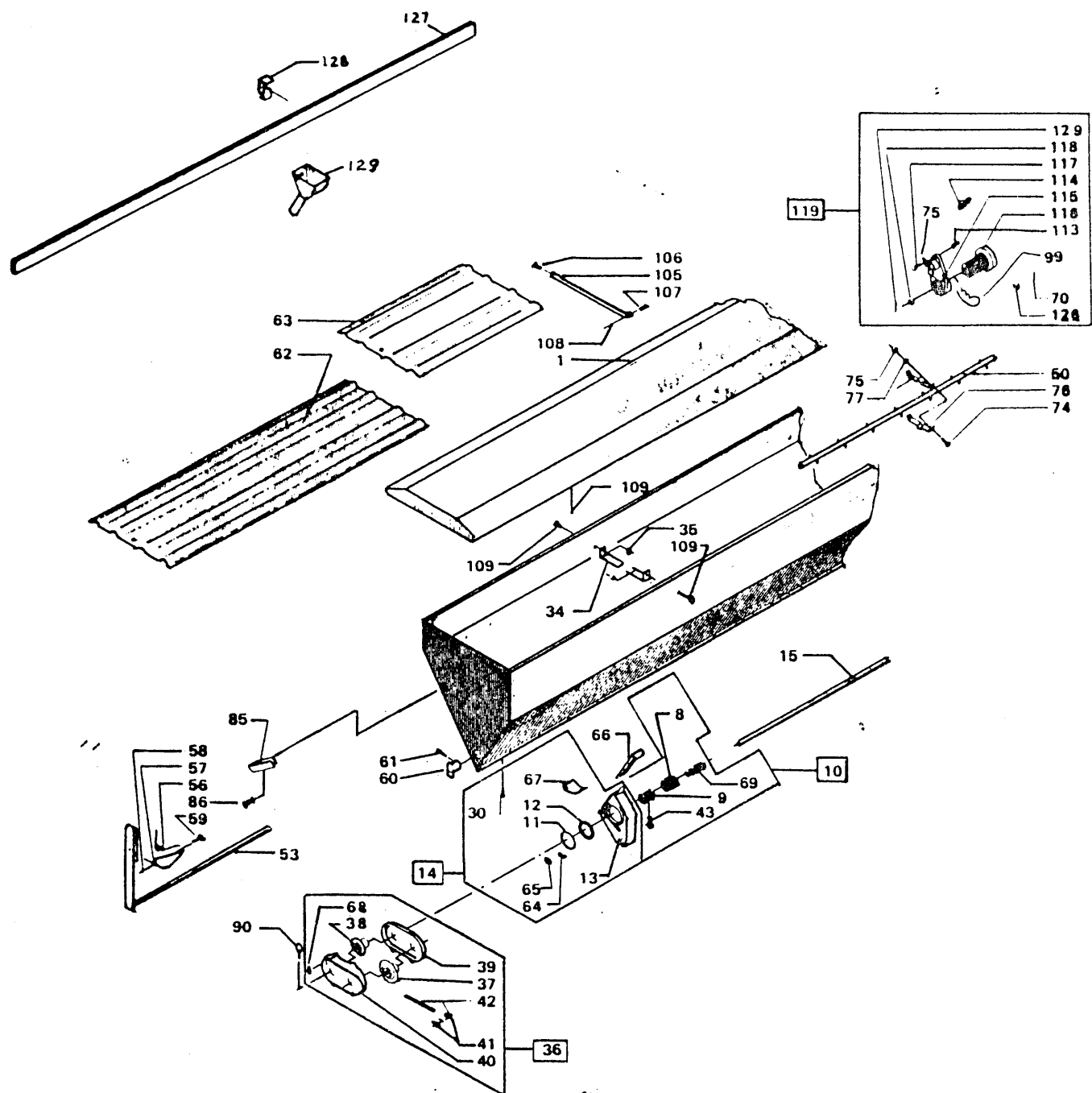
|                            |            | Urea                      |       |         |  |
|----------------------------|------------|---------------------------|-------|---------|--|
|                            |            | Utility 305mm row spacing |       |         |  |
|                            |            | API-AP2 330mm row spacing |       |         |  |
| Adjusting screw scale      | Kg/Ha      | Kg/Acre                   | Kg/Ha | Kg/Acre |  |
| 6                          | 58         | 23                        | 52    | 21      |  |
| 9                          | 69         | 28                        | 62    | 25      |  |
| 12                         | 81         | 33                        | 73    | 30      |  |
| 15                         | 93         | 37                        | 84    | 34      |  |
| 18                         | 105        | 42                        | 95    | 38      |  |
| 21                         | 117        | 47                        | 105   | 42      |  |
| 24                         | 129        | 52                        | 116   | 47      |  |
| 27                         | 141        | 57                        | 127   | 51      |  |
| 30                         | 153        | 61                        | 138   | 55      |  |
| 33                         | 165        | 66                        | 149   | 60      |  |
| 36                         | 177        | 71                        | 160   | 64      |  |
| Position of bottom trap    | 1          |                           |       |         |  |
| Position of shut-off plate | TOP        |                           |       |         |  |
| Agitator                   | Disengaged |                           |       |         |  |

|                            |            | DOUBLE SUPERPHOSPHATE     |       |         |  |
|----------------------------|------------|---------------------------|-------|---------|--|
|                            |            | Utility 305mm row spacing |       |         |  |
|                            |            | API-AP2 330mm row spacing |       |         |  |
| Adjusting screw scale      | Kg/Ha      | Kg/Acre                   | Kg/Ha | Kg/Acre |  |
| 6                          | 32         | 13                        | 29    | 12      |  |
| 9                          | 45         | 18                        | 41    | 16      |  |
| 12                         | 58         | 23                        | 53    | 21      |  |
| 15                         | 71         | 28                        | 65    | 26      |  |
| 18                         | 84         | 34                        | 77    | 31      |  |
| 21                         | 97         | 39                        | 89    | 36      |  |
| 24                         | 110        | 44                        | 101   | 40      |  |
| 27                         | 123        | 49                        | 113   | 45      |  |
| 30                         | 136        | 54                        | 125   | 50      |  |
| 33                         | 149        | 60                        | 137   | 55      |  |
| 36                         | 162        | 65                        | 148   | 59      |  |
| Position of bottom trap    | 1-2        |                           |       |         |  |
| Position of shut-off plate | TOP        |                           |       |         |  |
| Agitator                   | Disengaged |                           |       |         |  |

|                            |            | Urea                      |       |         |  |
|----------------------------|------------|---------------------------|-------|---------|--|
|                            |            | Utility 305mm row spacing |       |         |  |
|                            |            | API-AP2 330mm row spacing |       |         |  |
| Adjusting screw scale      | Kg/Ha      | Kg/Acre                   | Kg/Ha | Kg/Acre |  |
| 6                          | 58         | 23                        | 52    | 21      |  |
| 9                          | 69         | 28                        | 62    | 25      |  |
| 12                         | 81         | 33                        | 73    | 30      |  |
| 15                         | 93         | 37                        | 84    | 34      |  |
| 18                         | 105        | 42                        | 95    | 38      |  |
| 21                         | 117        | 47                        | 105   | 42      |  |
| 24                         | 129        | 52                        | 116   | 47      |  |
| 27                         | 141        | 57                        | 127   | 51      |  |
| 30                         | 153        | 61                        | 138   | 55      |  |
| 33                         | 165        | 66                        | 149   | 60      |  |
| 36                         | 177        | 71                        | 160   | 64      |  |
| Position of bottom trap    | 1          |                           |       |         |  |
| Position of shut-off plate | TOP        |                           |       |         |  |
| Agitator                   | Disengaged |                           |       |         |  |

## NOTE

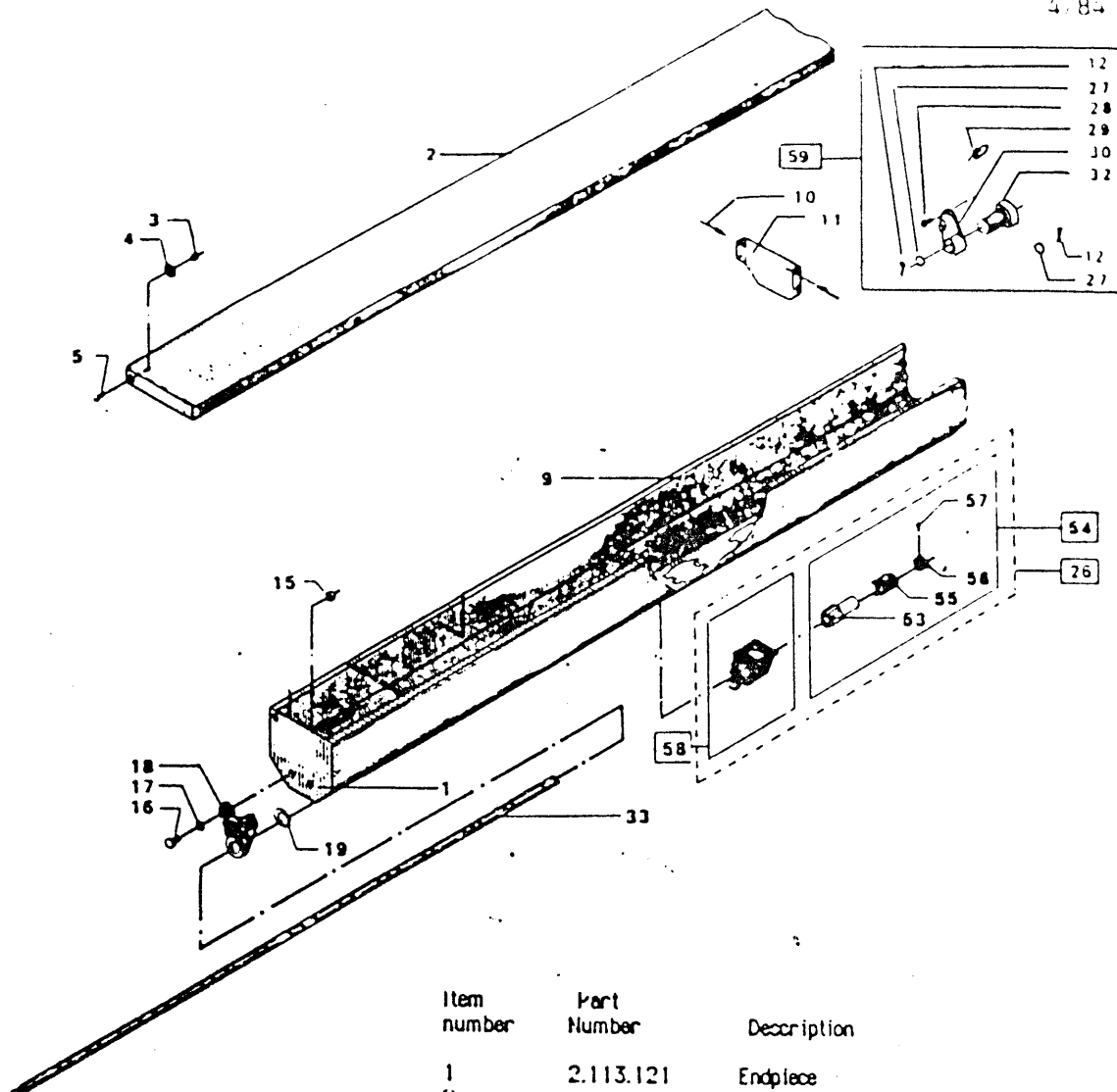
THE APPLICATION TABLES CAN ONLY BE USED AS A GUIDE WHEN CALIBRATING THE FG BOX. THIS IS DUE TO INCONSISTENCY OF GRANULAR SIZES FROM BAG TO BAG AND MANUFACTURER TO MANUFACTURER. FERTILIZER MOISTURE CONTENT WILL ALSO CAUSE VARIATIONS IN APPLICATION RATES.



| <u>Item</u><br><u>number</u> | <u>Part</u><br><u>number</u> | <u>Description</u>              |
|------------------------------|------------------------------|---------------------------------|
| 1                            | 3.113.198                    | Lid 2.00M                       |
| 1                            | 3.113.467                    | Lid 3.00M                       |
| 8                            | 4.125.027                    | Bushing                         |
| 9                            | 4.125.026                    | Feed roller                     |
| 10                           | 2.100.112ra                  | Feed roller assy' complete      |
| 11                           | 4.125.030                    | Lock washer                     |
| 12                           | 4.124.024                    | Stop washer for feed cup        |
| 13                           | 2.125.001                    | Feed cup                        |
| 14                           | 2.100.111                    | Feed cup assy' complete         |
| 15                           |                              | Sowing shaft 1.5M               |
| 15                           | 4.126.069                    | Sowing shaft 2.00M              |
| 15                           | 4.126.071                    | Sowing shaft 3.00M              |
| 34                           | 4.112.101                    | Internal brace                  |
| 35                           | 4.131.018                    | Nut M6                          |
| 36                           | 3.113.470                    | Agitator drive complete         |
| 37                           | 4.120.072                    | Chain wheel                     |
| 38                           | 4.120.073                    | Chain wheel                     |
| 39                           | 3.113.469                    | Drive casing half with flange   |
| 40                           | 3.113.468                    | Drive casing half               |
| 41                           | 4.120.119                    | Chain joint link                |
| 42                           | 4.138.024                    | Chain 340mm long                |
| 43                           | 4.130.088                    | Self tapping screw 6x1/2"       |
| 50                           |                              | Agitator shaft 1.5M             |
| 50                           | 3.125.154                    | Agitator shaft 2.00M            |
| 50                           | 3.126.170                    | Agitator shaft 3.00M            |
| 53                           |                              | Bottom trap shaft 1.5M          |
| 53                           | 3.125.254                    | Bottom trap shaft 2.00M         |
| 53                           | 3.126.256                    | Bottom trap shaft 3.00M         |
| 60                           | 4.116.040                    | Bearing for agitator shaft      |
| 61                           | 4.139.000                    | Split pin Ø4x20                 |
| 62                           | 3.113.449                    | Seive, short                    |
| 63                           | 3.113.450                    | Seive, long                     |
| 65                           | 4.130.089                    | Self tapping screw 6x6          |
| 66                           | 4.125.031                    | Shut-off plate                  |
| 67                           | 4.125.028                    | Bottom trap                     |
| 68                           | 4.130.088                    | Socket head screw 6x1/2"        |
| 69                           | 4.125.025                    | Hub for feed roller             |
| 74                           | 4.130.071                    | Screw M8x25                     |
| 75                           | 4.131.038                    | Washer Ø8                       |
| 76                           | 4.116.038                    | Support bearing, lower          |
| 77                           | 4.116.039                    | Support bearing, upper          |
| 85                           | 4.129.219                    | Notch plate                     |
| 86                           | 4.130.071                    | Screw M8x25                     |
| 105                          | 4.140.049                    | Spring for lid                  |
| 106                          | 4.130.090                    | Self tapping screw 14x20        |
| 107                          | 4.130.083                    | Screw M6x25                     |
| 108                          | 4.131.018                    | Nut M6                          |
| 109                          | 4.130.082                    | Bolt M6x12                      |
| 113                          | 4.113.019                    | Nut self-locking M8             |
| 114                          | 4.129.173                    | Locking pawl                    |
| 115                          | 3.129.213                    | Threaded adjuster               |
| 116                          | 3.129.214                    | Handle                          |
| 117                          | 4.130.070                    | Screw M8x25                     |
| 118                          | 4.129.228                    | Washer                          |
| 119                          | 3.129.215                    | Adjusting handle complete       |
| 126                          | 4.129.230                    | Washer                          |
| 127                          |                              | Frame for conductor tube 1.50 M |
| 127                          | 3.112.371                    | Frame for conductor tube 2.00 M |
| 127                          | 3.132.372                    | Frame for conductor tube 3.00 M |
| 128                          | 4.132.200                    | Hook for conductor tube         |
| 129                          | 4.123.035                    | Conductor tube                  |

## F87 SMALL SEEDS BOX

THIS BOX IS DESIGNED FOR SOWING GRASS SEEDS WITH THE METERING AND APPLICATION RATE ACHIEVED BY FLUTED NYLON FEED ROLLERS .THE RATE IS ADJUSTED BY MEANS OF AN ADJUSTING SCREW HANDLE WITH A SCALE FROM 0--21.



| Item number | Part Number | Description               |
|-------------|-------------|---------------------------|
| 1           | 2.113.121   | Endpiece                  |
| 2           |             | Lid 1.5M                  |
| 2           | 3.113.500   | Lid 2.00M                 |
| 2           | 3.113.506   | Lid 3.00M                 |
| 2           |             | Lid 3.5M                  |
| 3           | 4.131.018   | Nut self-locking M6       |
| 4           | 4.131.081   | Washer Ø6                 |
| 5           | 4.130.082   | Screw M6x12               |
| 9           |             | Seed box 1.5M             |
| 9           | 2.100.018   | Seed box 2.00M            |
| 9           | 2.100.014   | Seed box 3.00M            |
| 9           |             | Seed box 3.5M             |
| 10          | 4.132.036   | Pop rivet 6x8 mm          |
| 11          | 3.112.308   | Divider plate             |
| 12          | 4.139.000   | Split pin Ø4x20           |
| 15          | 4.131.039   | Nut self-locking M8       |
| 16          | 4.130.070   | Screw M8x20               |
| 17          | 4.131.038   | Washer Ø8                 |
| 18          | 4.116.000s  | Support bearing           |
| 19          | 4.136.071   | Circclip Ø17              |
| 26          | 4.113.087   | Feed cup and roller       |
| 27          | 4.131.033   | Washer 3/8                |
| 28          | 4.130.083   | Screw M6x25               |
| 29          | 4.129.238   | Locking pawl              |
| 30          | 3.129.225   | Threaded adjuster         |
| 32          | 3.129.224   | Handle                    |
| 33          |             | Sowing shaft 1.5M         |
| 33          | 3.125.265   | Sowing shaft 2.00M        |
| 33          | 3.126.271   | Sowing shaft 3.00M        |
| 33          |             | Sowing shaft 3.5M         |
| 53          | 4.125.015   | Feed roller               |
| 54          | 2.100.009   | Feed roller complete      |
| 55          | 4.141.028   | Bush for feed roller      |
| 57          | 4.130.120   | Self tapping screw 86x9.5 |
| 58          | 2.100.010   | Feed cup complete         |
| 59          | 3.129.253   | Adjusting mech' complete  |

## F87 SOWING RATES FOR UTILITIES

When calibrating use the same calibrating handle and the same number of turns as for the seed drill.

| Seeding tables for F87 Small seeds box<br>5 Shank Utility |                         |         |                |  |
|-----------------------------------------------------------|-------------------------|---------|----------------|--|
| Position of<br>adjusting<br>lever                         | Kilogrammes per Hectare |         |                |  |
|                                                           | Red Clover              | Timothy | Alfalfa Clover |  |
| 3                                                         | 9.3                     | 7.4     | 10.1           |  |
| 6                                                         | 13.9                    | 14.8    | 19.9           |  |
| 9                                                         | 22.1                    | 21.0    | 25.5           |  |
| 12                                                        | 31.9                    | 26.3    | 35.8           |  |
| 15                                                        | 40.1                    | 31.7    | 44.0           |  |
| 18                                                        | 46.9                    | 38.0    | 51.8           |  |
| 21                                                        | 52.5                    | 44.0    | 59.1           |  |

| Seeding tables for F87 Small seeds box<br>7 Shank Utility |                         |         |                |  |
|-----------------------------------------------------------|-------------------------|---------|----------------|--|
| Position of<br>adjusting<br>lever                         | Kilogrammes per Hectare |         |                |  |
|                                                           | Red Clover              | Timothy | Alfalfa Clover |  |
| 3                                                         | 8.6                     | 6.8     | 9.4            |  |
| 6                                                         | 12.8                    | 13.7    | 18.4           |  |
| 9                                                         | 20.4                    | 19.4    | 23.5           |  |
| 12                                                        | 29.4                    | 24.3    | 33.1           |  |
| 15                                                        | 37.1                    | 29.3    | 40.7           |  |
| 18                                                        | 43.3                    | 35.1    | 47.9           |  |
| 21                                                        | 48.5                    | 40.7    | 54.6           |  |

TO OBTAIN ACCURATE SOWING, ENSURE THAT THE INSTRUCTIONS GIVEN IN THE SOWING TABLE ARE FOLLOWED.  
CHECK FREQUENTLY THAT THE WANTED APPLICATION RATE IS SOWN.

When calibrating use the same calibrating handle and the same number of turns as for the seed drill.

| Seeding tables for F87 Small seeds box<br>9 Shank Utility |                         |         |                |  |
|-----------------------------------------------------------|-------------------------|---------|----------------|--|
| Position of<br>adjusting<br>lever                         | Kilogrammes per Hectare |         |                |  |
|                                                           | Red Clover              | Timothy | Alfalfa Clover |  |
| 3                                                         | 7.2                     | 5.8     | 7.9            |  |
| 6                                                         | 10.8                    | 11.5    | 15.4           |  |
| 9                                                         | 17.2                    | 16.3    | 19.8           |  |
| 12                                                        | 24.8                    | 20.5    | 27.8           |  |
| 15                                                        | 30.6                    | 24.6    | 34.2           |  |
| 18                                                        | 36.4                    | 29.5    | 40.3           |  |
| 21                                                        | 40.8                    | 34.2    | 46.0           |  |

| Seeding tables for F87 Small seeds box<br>11 Shank Utility |                         |         |                |  |
|------------------------------------------------------------|-------------------------|---------|----------------|--|
| Position of<br>adjusting<br>lever                          | Kilogrammes per Hectare |         |                |  |
|                                                            | Red Clover              | Timothy | Alfalfa Clover |  |
| 3                                                          | 5.6                     | 4.5     | 6.1            |  |
| 6                                                          | 8.3                     | 8.9     | 11.9           |  |
| 9                                                          | 13.3                    | 12.6    | 15.3           |  |
| 12                                                         | 19.2                    | 15.8    | 21.5           |  |
| 15                                                         | 23.7                    | 19.0    | 26.5           |  |
| 18                                                         | 28.2                    | 22.8    | 31.2           |  |
| 21                                                         | 31.5                    | 26.5    | 35.5           |  |

TO OBTAIN ACCURATE SOWING, ENSURE THAT THE INSTRUCTIONS GIVEN IN THE SOWING TABLE ARE FOLLOWED.  
CHECK FREQUENTLY THAT THE WANTED APPLICATION RATE IS SOWN.

# F87 SOWING RATES FOR AP2 MACHINES

When calibrating use the same calibrating handle and the same number of turns as for the seed drill.

| Seeding tables for F87 Small seeds box<br>5 Shank AP2 |                        |         |               |  |
|-------------------------------------------------------|------------------------|---------|---------------|--|
| Position of<br>adjusting<br>lever                     | Kilogramme per Hectare |         |               |  |
|                                                       | Red Clover             | Timothy | Alsike Clover |  |
| 3                                                     | 12.0                   | 9.6     | 13.1          |  |
| 6                                                     | 17.9                   | 19.2    | 25.7          |  |
| 9                                                     | 28.6                   | 27.2    | 33.0          |  |
| 12                                                    | 41.2                   | 34.1    | 46.3          |  |
| 15                                                    | 50.9                   | 41.0    | 57.0          |  |
| 18                                                    | 60.6                   | 49.1    | 67.0          |  |
| 21                                                    | 67.9                   | 57.0    | 76.5          |  |

| Seeding tables for F87 Small seeds box<br>7 Shank AP2 |                        |         |               |  |
|-------------------------------------------------------|------------------------|---------|---------------|--|
| Position of<br>adjusting<br>lever                     | Kilogramme per Hectare |         |               |  |
|                                                       | Red Clover             | Timothy | Alsike Clover |  |
| 3                                                     | 8.6                    | 6.8     | 9.4           |  |
| 6                                                     | 12.8                   | 13.7    | 18.4          |  |
| 9                                                     | 20.4                   | 19.4    | 23.5          |  |
| 12                                                    | 29.4                   | 24.3    | 33.1          |  |
| 15                                                    | 36.4                   | 29.3    | 40.7          |  |
| 18                                                    | 43.3                   | 35.1    | 47.9          |  |
| 21                                                    | 48.5                   | 40.7    | 54.6          |  |

TO OBTAIN ACCURATE SOWING, ENSURE THAT THE INSTRUCTIONS GIVEN IN THE SOWING TABLE ARE FOLLOWED.  
CHECK FREQUENTLY THAT THE WANTED APPLICATION RATE IS SOWN.

When calibrating use the same calibrating handle and the same number of turns as for the seed drill.

| Seeding tables for F87 Small seeds box<br>13 Shank AP2 |                        |         |               |  |
|--------------------------------------------------------|------------------------|---------|---------------|--|
| Position of<br>adjusting<br>lever                      | Kilogramme per Hectare |         |               |  |
|                                                        | Red Clover             | Timothy | Alsike Clover |  |
| 3                                                      | 9.2                    | 7.4     | 10.1          |  |
| 6                                                      | 13.8                   | 14.7    | 19.8          |  |
| 9                                                      | 22.0                   | 20.9    | 25.4          |  |
| 12                                                     | 31.7                   | 26.2    | 35.6          |  |
| 15                                                     | 39.2                   | 31.5    | 43.8          |  |
| 18                                                     | 46.6                   | 37.8    | 51.6          |  |
| 21                                                     | 52.2                   | 43.8    | 58.8          |  |

| Seeding tables for F87 Small seeds box<br>15 Shank AP2 |                        |         |               |  |
|--------------------------------------------------------|------------------------|---------|---------------|--|
| Position of<br>adjusting<br>lever                      | Kilogramme per Hectare |         |               |  |
|                                                        | Red Clover             | Timothy | Alsike Clover |  |
| 3                                                      | 8.0                    | 6.4     | 8.7           |  |
| 6                                                      | 12.0                   | 12.8    | 17.1          |  |
| 9                                                      | 19.1                   | 18.1    | 22.0          |  |
| 12                                                     | 27.5                   | 22.7    | 30.9          |  |
| 15                                                     | 33.9                   | 27.3    | 38.0          |  |
| 18                                                     | 40.4                   | 32.7    | 44.7          |  |
| 21                                                     | 45.3                   | 38.0    | 51.0          |  |

TO OBTAIN ACCURATE SOWING, ENSURE THAT THE INSTRUCTIONS GIVEN IN THE SOWING TABLE ARE FOLLOWED.  
CHECK FREQUENTLY THAT THE WANTED APPLICATION RATE IS SOWN.

When calibrating use the same calibrating handle and the same number of turns as for the seed drill.

| Seeding tables for F87 Small seeds box<br>9 Shank AP2 |                        |         |               |  |
|-------------------------------------------------------|------------------------|---------|---------------|--|
| Position of<br>adjusting<br>lever                     | Kilogramme per Hectare |         |               |  |
|                                                       | Red Clover             | Timothy | Alsike Clover |  |
| 3                                                     | 10.0                   | 8.0     | 10.9          |  |
| 6                                                     | 14.9                   | 16.0    | 21.4          |  |
| 9                                                     | 23.8                   | 22.6    | 27.5          |  |
| 12                                                    | 34.3                   | 28.4    | 38.6          |  |
| 15                                                    | 42.4                   | 34.1    | 47.5          |  |
| 18                                                    | 50.5                   | 40.9    | 55.9          |  |
| 21                                                    | 56.6                   | 47.5    | 63.7          |  |

| Seeding tables for F87 Small seeds box<br>11 Shank AP2 |                        |         |               |  |
|--------------------------------------------------------|------------------------|---------|---------------|--|
| Position of<br>adjusting<br>lever                      | Kilogramme per Hectare |         |               |  |
|                                                        | Red Clover             | Timothy | Alsike Clover |  |
| 3                                                      | 8.2                    | 6.5     | 8.9           |  |
| 6                                                      | 12.2                   | 13.1    | 17.5          |  |
| 9                                                      | 19.5                   | 18.5    | 22.5          |  |
| 12                                                     | 28.1                   | 23.2    | 31.6          |  |
| 15                                                     | 34.7                   | 27.9    | 38.8          |  |
| 18                                                     | 41.3                   | 33.5    | 45.7          |  |
| 21                                                     | 46.3                   | 38.8    | 52.1          |  |

TO OBTAIN ACCURATE SOWING, ENSURE THAT THE INSTRUCTIONS GIVEN IN THE SOWING TABLE ARE FOLLOWED.  
CHECK FREQUENTLY THAT THE WANTED APPLICATION RATE IS SOWN.