# **OPERATOR'S INSTRUCTIONS**

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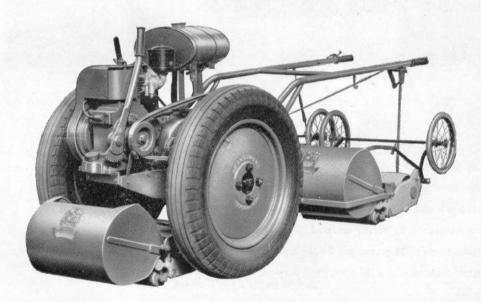
AND

# **ILLUSTRATED LIST OF PARTS**

FOR

# Ransomes "OVERGREEN"

Mark 7



RANSOMES SIMS & JEFFERIES, LTD
ORWELL WORKS :: IPSWICH :: ENGLAND

Telephone: IPSWICH 54711 (8 lines)

Telegrams: "RANSOMES 27-2708 TELEX"



### ABRIDGED SPECIFICATION

Chassis: Malleable iron castings and strong tubular steel handles, firmly braced.

Engine: 288 c.c. J.A.P. 4-stroke, model 4/3/50, with hand ratchet starter.

Clutch: "Slip belt" type, controlled from handle bar.

Road Wheels: Large diameter steel detachable wheels fitted with balloon tyres.

Transmission: By totally enclosed differential gear oil bath lubricated.

Performance: 18 greens per 8-hour day.

Petrol Consumption: 21 pints per hour—commercial grade fuel.

# GENERAL DESCRIPTION

The "Overgreen" Mark 7 is designed to assist in the upkeep of putting greens on golf courses where nothing less than the finest finish is acceptable.

The tractor is powered by a 288 c.c. J.A.P. 4-stroke motor (3,5 b.h.p. at 2,400 r.p.m.) fitted with a hand ratchet starter. The tractor trails three of the well-known Ransomes "Certes" units, specially adapted to form the "Overgreen" outfit. A lifting lever attached to the handles of the tractor raises the front unit for transporting purposes, while the rear units run on their transport carriages held in position by drop catches.

The slip belt clutch is controlled by a lever fitted to the left-hand handle bar and provides for a very smooth take-off together with easy manoeuvrability. Power is transmitted to the road wheels by means of a gearbox, incorporating a full differential, and in which all parts run in an oil bath.

To support the tractor when the cutting units are disconnected, a footrest is fitted to the left hand handle tube.

### BEFORE STARTING POWER UNIT

- 1. See that the clutch control lever is in the backward or disengaged position.
- 2. Fill the petrol tank with petrol (gasoline). (Capacity 2½ gallons).
- Consult the engine instruction manual, issued by the manufacturers, and included with every machine.
- 4. Check oil level in gear box and make sure that it is correctly filled with oil; also check that all other points have been lubricated. (See maintenance instructions, pages 4 and 11).
  - 5. Turn on petrol supply by pulling out knob on petrol tap under tank.

### TO OPERATE POWER UNIT

- 1. See that the parking support is raised to its highest position.
- Start engine by pulling smartly upwards on the ratchet starting lever, when the engine will start.
- Allow the engine to warm up for a few minutes, then throttle back and push the clutch lever forward, thus engaging the clutch, and gradually open the throttle. The tractor will now take up the drive and move forward.

# MAINTENANCE

### GEARBOX

To check oil level in gearbox tilt tractor forward so that it rests on the engine supports. Remove filler plug and drain plug located on right hand side of gearbox. Fill with an S.A.E. 50 oil until the oil starts to run out of the drain hole and then replace both plugs. Inspect gearbox every week and maintain the oil at this level.

### TRACTOR WHEELS

Lubricate the wheel bearings with S.A.E. 50 oil through the nipples provided on the axle casings on either side of the machine, using the oil-gun supplied in the tool kit.

### ALL OTHER PIVOT POINTS

Lubricate these frequently using heavy gear oil of S.A.E. 140 quality.

### TYRE PRESSURE

The tractor wheels are fitted with large size balloon tyres and these should be run at very low pressure, approximately 6 lbs. per sq. inch. This pressure should allow about 10 inches of the tyre to make contact with the ground. A pressure gauge and pump are included in the tool kit.

### **OPERATION**

### ASSEMBLY OF OVERGREEN

Place the unit without transport wheels between the wheels of the tractor, and with the lifting lever in the cutting position as shown (fig. 3) connect the levers "T" by the studs "U," as illustrated. See that the levers "V" are behind lifting studs "W" (see fig. 1). The two rear units, fitted with drawbars, can be connected to points "X" by the universal joints (see fig. 3). It is essential that the special thin bolt be fitted in the top L.H. ho'e of the side frames of the rear units when attaching the back stays (see fig. 2).

### TO OPERATE OVERGREEN

For transport the units should be raised from the ground. Units should not be trailed on their own rolls except when cutting.

The front unit is raised by lever "Y" (fig. 3). On uneven ground it may be necessary to see that lever "Y" catches stud "W".

The back units are raised by mounting them on the rubber carriage whoels. This is done as follows:—

Flip over front catches "Z", at the same time pressing on back frame to allow them to drop in correct position.

Release catches "AA", allowing wheels to drop on ground. Lift frame so that wheels can run under unit and take up position as illustrated.

The equipment is now loaded ready to move to the green which is to be cut. The outfit should be run on the edge of the green before lowering the units into the cutting position, as shewn in fig. 3. Care must be taken not to forget to lift the catches "Z", otherwise the flexibility of the back units will be lost.

When emptying boxes or loading units the tractor handle is supported by footrest "CC", and can be hooked by "DD" to a unit to prevent the possibility of the tractor tipping. (see fig. 3).

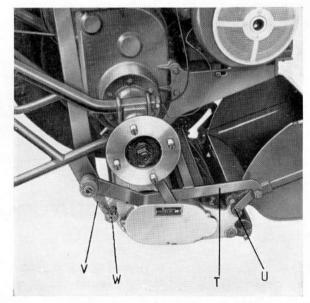


Fig. 1

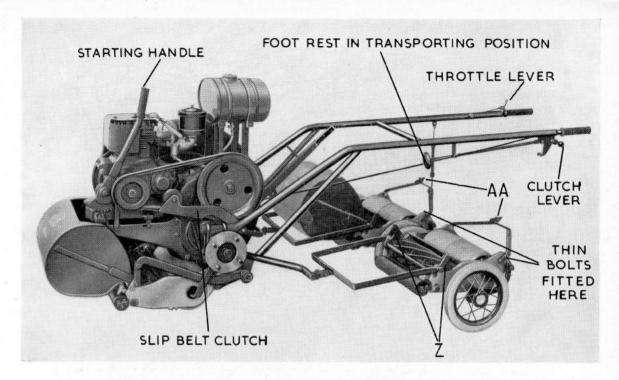


Fig. 2

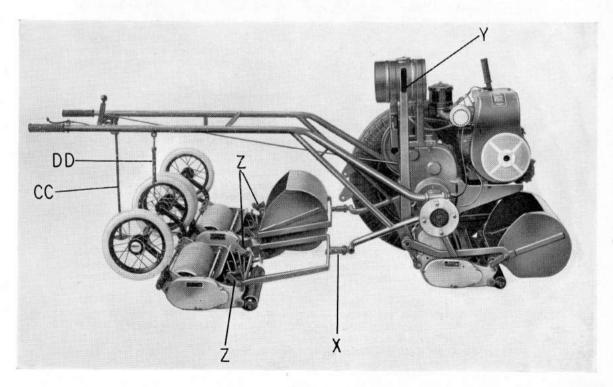


Fig. 3

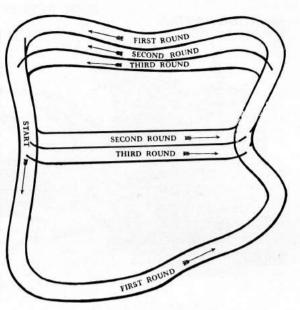
### **CUTTING GREENS**

First circle the whole green so as to cut away the headlands. Cut down the centre of green on to the headland, thus dividing the green in two. Strips should be cut off each half alternately, down the outside of one half and up the inside of the opposite half.

This leaves the green with the nap of one half in the opposite direction to the other and makes a good clean putting surface.

Where greens are irregular in shape, in order to give them a good appearance, the general tendency should be to straighten the cut as early as possible, working from the outside edge.

Note:—To maintain first-class cutting it is essential to observe the following points:—



Method of Cutting Green.

- (a) The three cutting units must be set exactly alike so that there is no difference in the height of cut.
- (b) The cutting cylinder must be set lightly on the bottom blades so as to avoid any tendency for the roll to skid.
- (c) Machines must not be set with bottom blades pressing on the ground. A suggested setting for good-class putting greens is \(\frac{1}{8}\) inch between bottom blade and a straight edge placed across the two rolls. A gauge \(\frac{1}{8}\) inch thick is supplied in the tool box, as well as a straight edge.
- (d) Cutting edges of units must be kept keen and we recommend grinding-in at least once
- (e) In operation, handle lightly, allowing power unit to do all the work. Take easy turns and ease speed of tractor slightly whilst turning. Do not attempt to turn until tractor is in motion.

# OPERATOR'S INSTRUCTIONS

"CERTES" UNITS, MARK 12

### LUBRICATION (see fig. 4)

Each time the units are used they should be oiled at the following points, using the oil gun provided. Use a good class machine oil, and take care that each point gets the requisite amount of oil. Such points as the Freewheel, "B", front roller "E", and gear housing "C", will overflow if too much oil is given.

Land Roll Bearings through nipples "A".
Land Roll Freewheel through nipples "B".
Gearing through nipple "C".
Front Roll Oilbath through nipples "E".
Cutting Cylinder Spindle through nipples "D".

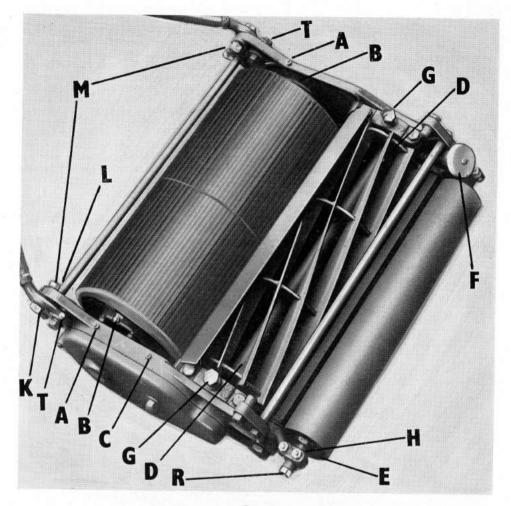


Fig. 4

### **ADJUSTMENTS**

To alter height of cut. This is regulated by a knurled Hand Wheel, "F", which when turned in a clockwise direction, raises the cutters. Each half turn of this wheel raises or lowers the bottom blade 1/32 of an inch (see note (a), page 6).

Should the front roller get out of alignment with the land roll, correction can be made by a special adjustment of the R.H. carriage. After making adjustment be sure to tighten the clamping bolt.

CAUTION. The units should never be used with the bottom blades pressing on the lawn. If they do, the spiral cutters are liable to be damaged by the bottom blades being forced upwards, the units will also work heavily and the turf will be badly marked.

To see if a unit is set correctly disconnect from tractor, turn it on its side and place a straight edge across the land roll and front roll, the bottom blade must be clear of the straight edge.

#### Cutters.

If a unit does not cut cleanly, set the cylinder carefully to the bottom blade by means of the adjusting screws "G" (see fig. 4, page 7). When correctly sct, the cylinder should revolve freely but be in "wiping" contact with the bottom blade, and should be abe to cut a piece of writing paper cleanly when held against the edge of the bottom blade. This cutting test should be made across the whole width of each cutter. If the paper cannot be cut cleanly without undue pressure of the cylinder on the bottom blade, then the cutters have become dull, and if used in this condition will only bruise the grass. The keen edges can be restored by a grinding-in process (see page 9) and to get the best results from your "Certes" units it is a good policy to grind-in the cutters periodically, say, once a month.

CAUTION. In the course of time, as the cutting cylinder and bottom blade become worn, the cylinder springs will close up. If the cutting cylinder is set close to the bottom blade, with the springs in this condition, the cap may be broken. The springs should be shortened before making such adjustments.

### Front Roller Bearings (see fig. 4, page 7)

The front roll turns on adjustable hollow centres and should rotate perfectly freely without float. To take up any play, slacken the nut "H" (R.H. side of machine) and turn cone "R" as required. Tighten nut "H" which will lock the adjustment.

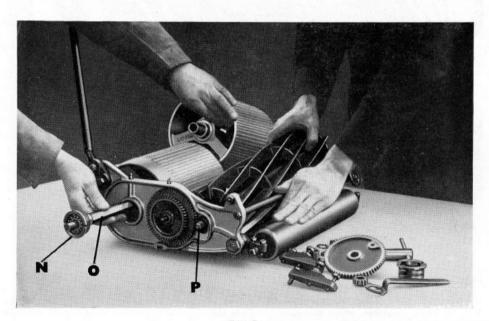


Fig. 5

### TO TAKE LAND ROLL OUT OF MACHINE

Take off gear cover by undoing hexagon nut and removing bolt. Undo nut on end of land roll spindle and lever off gear wheel (LO 44). Remove dust cap from opposite side frame and take out set screw in end of spindle. Using special key spanner unscrew housings "N" which will extract ball bearings from spindle, which can then be withdrawn. When unscrewing the housings note that the R.H. side one has a R.H. thread and the L.H. one a L.H. thread. (This is marked on the side frames). Note carefully the position of each loose part so that when reassembling the gears and rolls will take up their correct alignment.

### TO TAKE CUTTING CYLINDER OUT OF MACHINE

Remove the gear cover, take off hexagon nut and remove pinion from cylinder spindle. Undo the four bolts which hold the cylinder bearing caps in position and remove caps. By lifting the L.H. end of the cylinder as shown in figure 5, the spindle end can be withdrawn through the slot in the side frame "P".

### TO REPLACE CUTTING CYLINDER

Insert the spindle end into the slot in side frame. Press the bearing housings, slightly on the cross, into the slide ways, keeping the R.H. housing at the top of the slot. Do not exert too much pressure to get the cylinder back; it will slide into position quite easily, and the housings will gradually assume their correct angle as the cylinder takes up a horizontal position. Replace the cylinder caps and then turn the mower over and insert the springs under the housings. Place the springs against the lugs on the side frames and, with a suitable screwdriver lever the ends into the correct position taking care to see that the springs are set squarely betwen lug and housing. Replace cylinder pinion and tighten nut, not forgetting the distance piece that should be fitted between ball bearing and pinion.

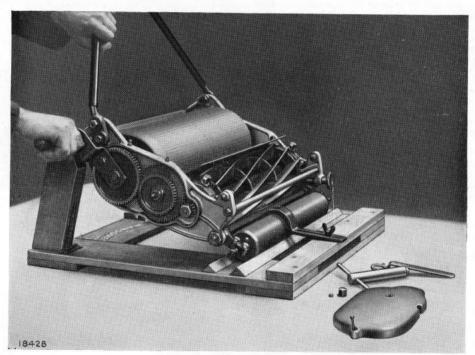


Fig. 6

### GRINDING-IN CUTTING CYLINDER

To maintain keen cutting edges on which clean cutting depends, we recommend a periodic grinding-in with carborundum paste. A special stand for this operation is included with the machine which enables this to be carried out simply and effectively, and in a matter of a few minutes.

Place the machine in the stand as shown in the ilustration above securely clamping the front roll. Remove the gear cover and fit the special handle supplied with the grinding-in frame. This handle is screwed to the main gear wheel using the tapped hole provided.

Now apply carborundum paste in small quantities with a brush to the edges of all the spiral cutters and turn handle in an anti-clockwise direction so that the cylinder revolves backwards.

As the grinding process continues the cylinder should be adjusted to the bottom blade by screws G. (See fig. 4, page 7). A light pressure on the bottom blade is all that is necessary, and this will allow the carborundum paste to get to the edges. Examine the edges of the cutters to make sure that grinding is taking place throughout their entire length and that they have become sharp.

When grinding is complete make sure that all traces of the abrasive are wiped off the cutters and bottom blade. Use an oily rag to do this.

# ASSEMBLY INSTRUCTIONS FOR "OVERLAWN" UNIT

Attach the coupling unit to the lugs of the tractor handle bar as shown in fig. 7. The coupling must be assembled with the short boss uppermost. This ensures that the unit frame lies parallel to the ground.

Lower the unit frame on to the cutting unit so that its stirrups rest on the main axle and secure with the nut and bolt passing through the stirrup. Lower the front of the unit frame and couple the spring between the spring lever on the main axle of the unit and the lifting unit of the lever frame. Hook the lifting lever in its bottom position at the handle end and couple the bottom lifting link to the lug on the bottom block of the unit. Verify that the centre and bottom lifting links will slide freely together.

Couple the cutting unit to the tractor by means of the pin provided. Fasten the stone guard to the top portion of the handles by means of the clips attached to it.

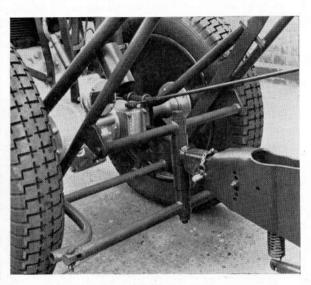


Fig. 7
Attachment of Overlawn Unit

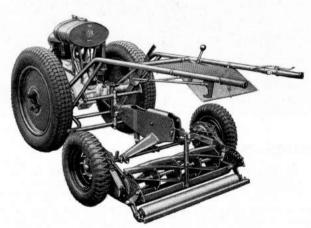


Fig. 8

Assembly of Overgreen Tractor and Overlawn Unit

# OPERATION AND MAINTENANCE INSTRUCTIONS FOR OVERLAWN UNIT

### LUBRICATION

Caution. Machines are despatched from the Works without oil in the gear housings and they should be correctly lubricated before putting the machine to work.

Gear Cases. The driving gears should run in S.A.E. 140 Gear Oil. Each gear case will hold approximately  $\frac{1}{2}$  pint which is put in through the large plug in the top of the case. A hexagon oil level plug is fitted low down on the inside of each side frame close to the cylinder housings. Remove this oil level plug when filling or topping up, as the case must not be overfilled. Check the oil level by removing this oil level plug about once a month. This machine should be level when checking this.

Remaining points should be lubricated with S.A.E. 140 Gear Oil, not grease. These are:-

Cutting Cylinder Bearings. Through nipples on cylinder housing each day machine is used.

Main Axle Bearings. Through nipples in hub cap once a week.

Rear Tubular Rolls. Through nipples at end of roll each day the machine is used.

Rear Roller Carriages. Through nipples on brackets once a week.

Bottom Block Ends. Through nipples on ends of block once a week.

Clutch Operating Rod. Through nipples on top of clutch housings once a week.

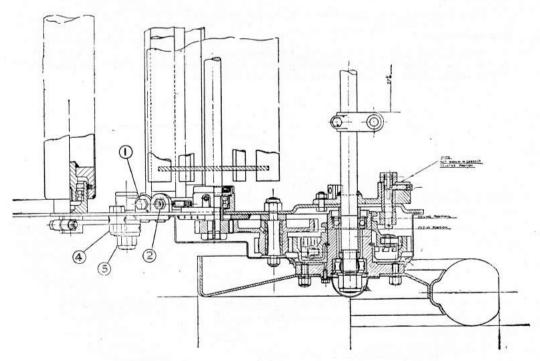


Fig. 9

### **OPERATION**

### Adjusting Bottom Blade to Cutting Cylinder. (Figs. 9 and 11)

The machine should be received with the adjustment correctly made. Any later adjustments can be made as follows:—

Slacken off the small hexagon screw (1), adjust blade up or down by nut (2), until a sliding contact between cylinder and b'ade is obtained. This sliding contact must not prevent the cylinder from revolving freely. Retighten screw (1) and then nut (2) when adjustment is completed.

### To put Cutters Into Gear.

The gear levers (3) on each side of the unit should be moved towards the centre of the machine to put the cutters into gear. Do not attempt this with the machine in motion.

### To Alter Height of Cut.

The machine is supplied set at a medium of cut. To alter this height remove the bolts (4) which secure the rear roll carriages and move the carriages up or down as required. Replace and securely tighten the bolts. Note.—The nuts (5) need not be slackened off to do this.

CAUTION.—The machine should never be used with the bottom blade pressing on the ground as the cutting cylinder may be damaged by the bottom blade being forced upward; also the wear is greater and the machine will be harder to work.

For topping long grass the Overlawn Unit may be used in the lifted position, for a very high cut the bolts (5) may be lowered to the second hole in the rear roll carriages (4) (fig. 11), but for close cutting the bolts will have to be returned to the top holes.

### Tyre Pressure

The pressure should be maintained at 20 lbs. per square inch.

### Rear Roll Scraper

There are two positions for the scraper brackets, one position for use when the machine is set for close cutting and the alternative position when the machine is set for its maximum cutting height. These two positions are clearly indicated in fig. 10.

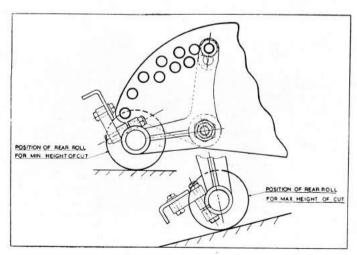


Fig. 10

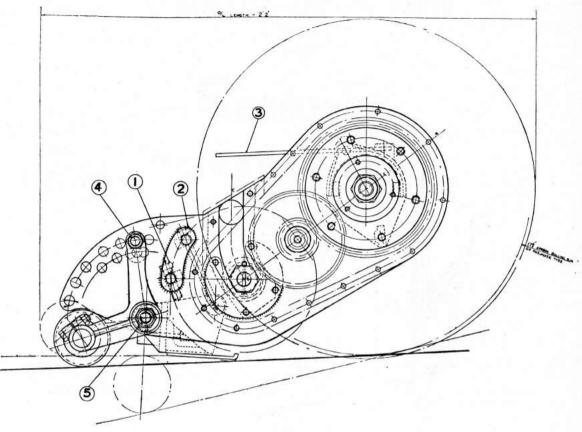


Fig. 11

### MAINTENANCE

### Cleaning

After using the machine it should always be brushed clean of grass and dust and the cylinder turned two or three times to clear the cutting edges, which should then be wiped dry and greased before the machine is put away under cover. During the cutting season it is recommended that every two or three months a careful examination and cleaning be made of the gears and bearings and other interior parts of the gear casings.

### **Cutting Cylinder**

The cutting cylinder can be removed without dismantling the remainder of the machine in the following manner (fig. 12). Remove the small cover and gasket from the main gear cover by removing the screws (1). Take out the four screws (2) securing the cylinder housings to the side frames. The cylinder can now be lifted by a steady upward pull applied simultaneously to each end of the cylinder.

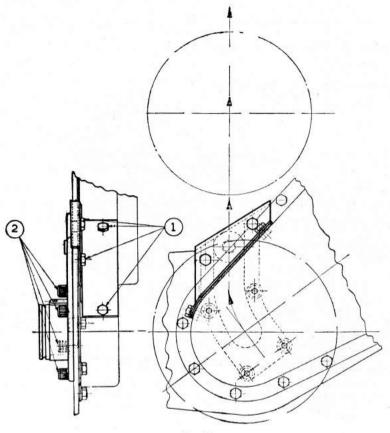


Fig. 12

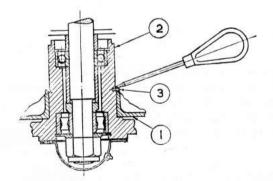


Fig. 13

### Main Gear Wheel

If it is desired to remove the main gear wheel (1) from the pawl box (2), the retaining circlip (3) can be removed by applying a screwdriver under the centre of the circlip and levering it upwards until it springs off (see fig. 13).

# ILLUSTRATED LIST OF PARTS

FOR

# Ransomes "OVERGREEN"

## MARK 7

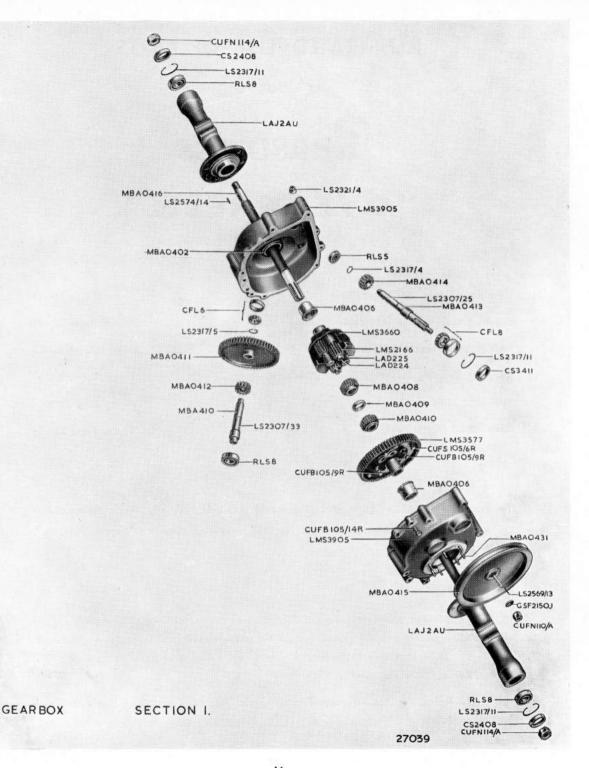
Gear Box (Secti	on 1)	•••		•••	•••		•••	Pages 16—17
Engine, Clutch, \	Wheels and	Handles	(Section	2)		•••		Pages 18—19
Fittings for Cert	es Units (Se	ection 3)				•••		Pages 20—21
Overlawn Coupli	ing and Safe	ty Guard	s (Sectio	n 4)	1000	***	•••	Page 21
Tool List						31,73,73 ***		Page 21
Certes Units (Se	ction 5)						•••	Pages 22-24

To avoid errors and to ensure prompt despatch it is advisable when ordering spares to quote description of part, part number and registered number of the machine.

NOTE. Lockwashers where not quoted in this list are of the standard single coil type.

Split pins are also not quoted, but are the standard mild steel type. Nuts. The mark of the nut applicable to any bolt or screwed pin, etc., will be found in brackets by the side of the mating part.

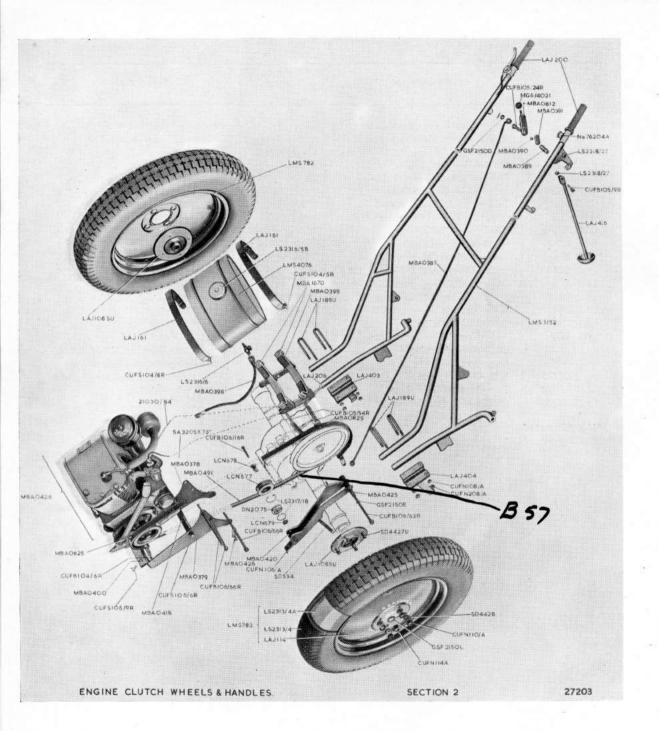
All shafts, studs, etc., are supplied complete with nuts, keys, split pins, and washers where applicable.



### GEARBOX. Section 1

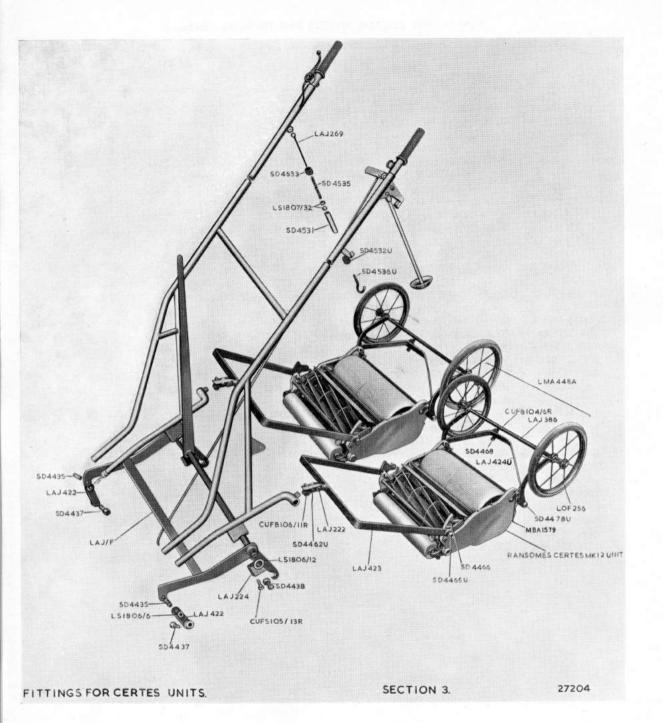
Mark	Description	Mark	Description
CFL 6	Roller Bearing—Intermediate Shaft	LS 2317/5	Circlip—1" dia. External
CFL 8	Roller Bearing-Input Shaft	LS 2317/11	Circlip-21/4" dia. Internal
CS 2408	Oil Seal-Axle Bearing	LS 2321/4	Oil and Drain Plug
CS 3411	Oil Seal-Input Bearing	LS 2569/13	Key-Input Pulley
CUFB 105/14R	Bolt—Gearbox (UFN 105/A)	LS 2574/14	Key-Brake Drum
CUFB 105/9R	Bolt-Main Gear Wheel	NC 6100	Lubricator—Axle Housing
CUFS 105/6R	Screws-Main Gear Wheel	MBA 0402	Bearing—Differential
*GP 1/1.5	Grooved Pins-Differential Pin	MBA 0406	Sleeve-Differential Bearing
GSF 2150D	Washer—5 dia.	MBA 0408	Differential—Gears
GSF 2150J	Washer—§" dia.	MBA 0409	Spacing Washer
*LAD 221	Pins—Differential Housing	MBA 0410	Intermediate Shaft
LAD 224	Bush-Differential Pinion	MBA 0411	Intermediate Gear
LAD 225	Distance Piece-Differential Pinion	MBA 0412	Intermediate Pinion
*LAD 232	Locking Plates-Main Gear Wheel	MBA 0413	Input Shaft (UFN 110/A)
LAJ 2AU	Axle Housing	MBA 0414	Input Pinion
LMS 2166	Differential Pinion	MBA 0415	Input Pulley
LMS 3577	Main Gear Wheel and Boss	MBA 0416	Axles (CUFN 114/A)
294762640 1266600	Differential Housing	MBA 0431	Studs—Axle Housing (UFN 105/A)
LMS 3905	Gear Box	RLS 5	Ball Bearing—Input Shaft
LS 2307/25	Key-Input Pinion	RLS 8	Ball Bearing-Intermediate Shaft
LS 2307/33	Key-Intermediate Gear	RLS 8	Ball Bearing—Axles
LS 2317/4	Circlip—7" dia. External		

<sup>\*</sup>Not illustrated



# POWER UNIT, CLUTCH, WHEELS AND HANDLES. Section 2

Mark	ark Description		Description
CUFB 104/6R	Bolt Belt Guard (CUFN 104/A)	LCN 679	Clutch Pulley Collar
CUFB 105/9R	Bolt—Handle Foot (LS 2318/27)	LMS 782	Wheel-complete
CUFB 105/54R	Bolt-Petrol Tank Bracket	LMS 3152	Handle Assembly
	(CUFN 105/A)	LMS 4076	Petrol Tank-complete
CUFB 106/9R	Bolt—Engine Mounting	LS 2313/4	Pneumatic Tyre
	(CUFN 106/A)	LS 2313/4A	Inner Tube
CUFB 106/11R	Bolt—Engine Mounting	LS 2316/5B	Filler Cap-Petrol Tank
CUFB 106/16R	Bolt—Clutch Pulley (CUFN 106/A)	LS 2316/6	Petrol Tap
CUFB 106/34R	Bolt-Clutch Lever (CUFN 106/A)	LS 2317/18	Circlip—17" Internal
CUFB 106/62R	Bolt-Clutch Arm (CUFN 106/A)	LSA 1025	Fibre Washer-Petrol Tap
CUFB 106/66R	Bolt-Engine Bracket	MBA 0378	Engine Bracket R.H.
	(CUFN 106/A)	MBA 0379	Engine Bracket L.H.
CUFS 104/5R	Screw-Petrol Tank Strap	MBA 0387	Clutch Rod
	(CUFN 104/A)	MBA 0389	Distance Tube—Clutch Lever
CUFS 104/6R	Screw—Petrol Tank Strap	MBA 0390	Distance Piece—Clutch Lever
CHECKE	(CUFN 104/A)	MBA 0398	Petrol Pipe
CUFS 106/6R	Screw-Rear Engine Bearer	MBA 0399	Leather Strip—Petrol Tank
DN 2075	Bearing—Clutch Pulley	MBA 0400	Engine Bearer—front
GSF 2150D	Washer— $\frac{5}{16}$ " dia.	MBA 0418	Engine Bearer—rear
GSF 2150E	Washer—3" dia.	MBA 0420	Clutch Arm
GSF 2150L	Washer—§" dia.	MBA 0425	Distance Tube—Clutch Arm
LAJ 1085U	Wheel Flange	MBA 0426	Engine—complete
LAJ 114	Wheel Disc	MBA 0446	Bracket—Clutch Spring
LAJ 161	Strap-Petrol Tank	MBA 0491	Vee Belt-Clutch - 857.
LAJ 189U	'U' Bolts—Handles	MBA 0812	Clutch Lever
LAI 200	(CUFN 108/A, 208A)	MBA 0825	Belt Guard
LAJ 206	Handle Grips	MBA 1670	Petrol Tank Bracket
LAJ 206 LAJ 373A	Wood Sleeve-R.H. Handle	MG 6/4021	Knob-Clutch Lever
	Registration Plate	76204A	Cut-out Switch
LAJ 403 .   LAJ 404 ·	'U' Bolt Plate R.H.—Handles	SD 534	Clutch Spring
LAJ 416	*U' Bolt Plate L.H.—Handles Foot—Handle	SD 4427U	Studs-Wheel Flange (CUFN 110/A)
LCN 677		SD 4428	Cone Collar-Wheel Disc
CN 678	Clutch Pul'ey		
CIV 0/0	Clutch Pulley Shaft		



### FITTINGS FOR CERTES UNITS. Section 3

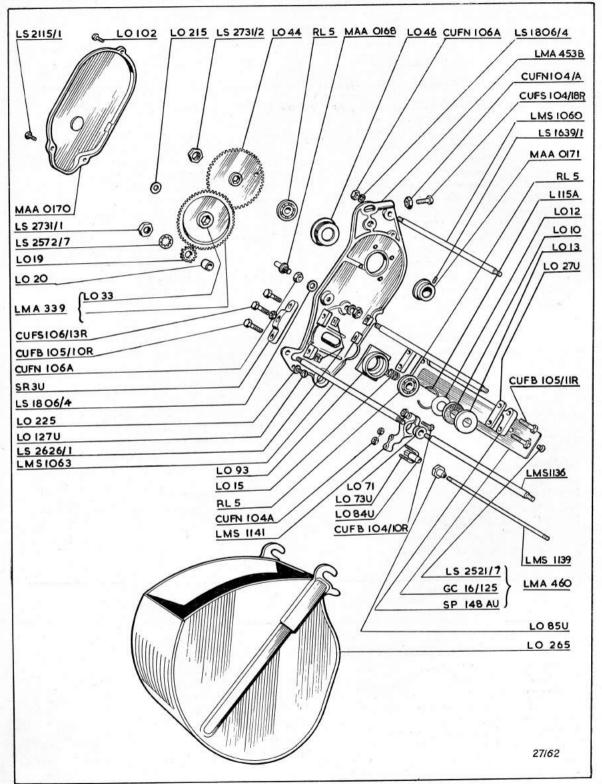
Mark Description		Mark	Description	
CUFB 104/6R	Bolt-Drop Catch (CUFN 104A)	LS 1806/12	Washer—1" dia.	
CUFB 106/11R	Bolt—Universal Joints	SD 4435	Stud-Trailing Link and Lever	
	(CUFN 106/A)	SD 4437	Stud-Trailing Link and Unit	
CUFS 105/13R	Screws-Bearing Cap	SD 4438	Stud-Lifting Lever and Unit	
LAJ/F	Lifting Lever—complete	SD 4462U	Bearing Nuts-Drawbar	
LAJ 222	Swivel Bolt	SD 4465U	Bearing Nuts-Drawbar	
LAJ 224	Cap-Lifting Lever Bearing	SD 4466	Stops-Drawbar	
LAJ 269	Rod-Spring Hook (LS 1807/32)	SD 4468	Drop Catch—Back Stay	
LAJ 386	Axle—Transport Carriage	SD 4478U	Bearing Nuts-Transport Carriage	
LAJ 422	Trailing Link	SD 4531	Tube—Spring Hook	
LAJ 423	Drawbar-Rear Units	SD 4532U	Adjusting Nut-Spring Hook	
LAJ 424U	Back Stay—Rear Units	SD 4533	Adjusting Nut-Spring Hook Rod	
LAJ 426	Balance Weight-Front Unit	SD 4535	Spring—Spring Hook	
LMA 448A	Transport Carriage—complete	SD 4536U	Spring Hook (LS 1807/32)	
LOF 256	Transport Wheel	MBA 1579	Special Bolt—Back Stay	
LS 1806/6	Washer—1" dia.			

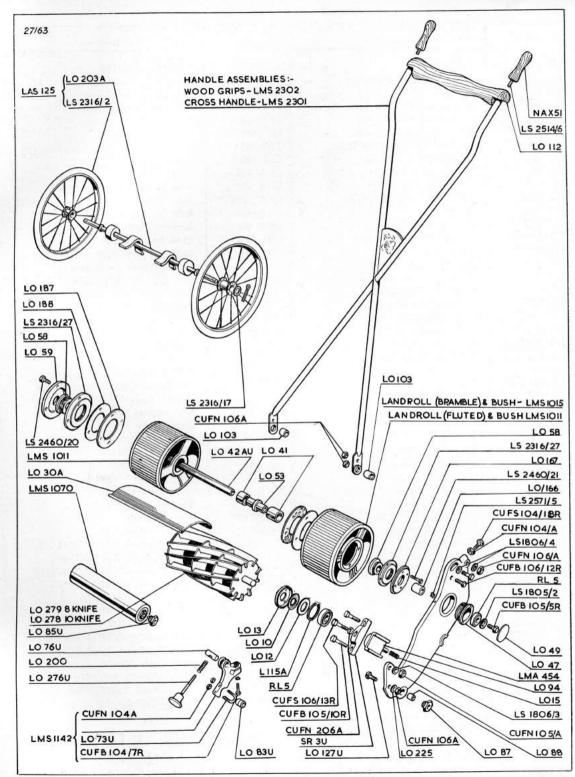
### OVERLAWN COUPLING AND SAFETY GUARD. (Not illustrated)

Mark	Description	Mark	Description
CUFB 104/7R	Bolt—Stone Guard Clip	LMS 1949	Connecting Spindle (LS 1808/8)
	(LS 2318/26)	LMS 1952	Clip-Stone Guard
AS 557	Over awn Coupling and Stone	LS 1806/8	Washer—5" dia.
	Guard-complete	LS 1806/10	Washer—3" dia.
MA 307	Stone Guard-complete	LS 2432/20	Bolt-Long Attachment Bar
MS 75	Attachment Bar-short		(LS 2318/3)
MS 76	Attachment Bar-long	NC 6100	Lubricator
MS 1940	Spindle—(CUFN 412/A)	SD 5077	Setscrew—Short Attachment Bar
MS 1941	Draught Bracket		Proposition select property and

### TOOL LIST

Mark	Description	Mark	Description
LAJ 400	Straight Edge	LS 2507/27	Tyre Lever
LO 142A	9 Ring Spanner	LS 2508A/3A	Box Spanner 1/4" x 15/6" UF
LS 2316/20	Tool Holder	LS 2509/12A	Spanner 7" UF
LS 2506/3	Oil Gun	LS 2509/24A	Spanner 1/4" x 15/10" UF
LS 2506/11	Oil Can	LS 2509/28A	Spanner 3" x 1 UF
LS 2507/6	Pressure Gauge	LS 2509/33A	Spanner 5" x 3" UF
LS 2507/14	Foot Pump	LSA 195	Tommy Bar
LS 2507/21	Box Spanner 5 " UF	The second second	





### **CERTES UNITS (Section 5)**

Mark	Description	Mark	Description
LO 13	O 13 Dust Cap		Spindle-Land Roll
LO 15	Spring-Cylinder Adjusting	LO 44	Main Gear Wheel
LO 19	Cylinder Pinion	LS 2521/7	Screw—Bottom Blade
LO 46	Housing—Land Roll R.H.	LS 2571/5	1" Drive-in Lubricator
LO 47	Housing—Land Ro'l L.H.	LS 2572/7	§" Shakeproof Washer
LO 49	Dust Cap—Housing L.H.	LS 2574/5	Key-Main Gear
LO 53	Distance Sleeve—Land Roll	*LAS 125	Transport Carriage—complete
LO 58	Adaptor—Free Wheel	LAS 785	Grinding-in Stand
LO 59	Cover—Land Roll R.H.	LMA 125	Grassbox (Front Unit only)
LO 71	Bush—Carriage R.H.	LMA 339	Intermediate Gear and Bush
LO 73U	'U' Bolts (CUFN 104/A)	LMA 453B	Side Frame. R.H.
LO 76U	Swivel Nut	LMA 454	Side Frame. L.H.
LO 83U	Centre Pin—Fixed	LMA 460	Bottom Block and B'ade
LO 84U	Centre Pin—Adjustable	*LMS 1011	
LO 85U	Cone Bush	LMS 1015	Land Roll and Bush (Fluted)
LO 88		LM2 1012	Land Roll and Bush (Bramble)
LO 93	Bush for Side Frame	LMC 1040	(Overgreen Units only)
	Housing—Cylinder R.H.	LMS 1060	Rear Stay (CUFN 106/A)
LO 94	Housing—Cylinder L.H.	LMS 1063	Front Stay (CUFN 105/A)
LO 102	Screw—Gear Cover	LMS 1070	Front Roll
LO 103	Bush—Handle	LMS 1136	Carriage Stay (LO 87U)
*LO 112	Cross Handle	LMS 1139	Tie Rod
LO 127U	Grassbox Studs (CUFN 106/A)	LMS 1141	Carriage R.H.
LO 166	Distance Piece L.H.	LMS 1142	Carriage L.H.
LO 167	Cover-Land Roll L.H.	LMS 1147	Centre Stay (CUFN 106/A)
LO 187	Inner Cover-Land Roll	*LMS 2301	Handle Assembly—Cross Handle
LO 188	Cork Washer	*LMS 2302	Handle Assembly—Wood Grips
LO 200	Adjusting Spring—Front Roll	MAA 0168	Intermediate Stud (LS 2731/3)
*LO 203A	Transport Carriage Axle	MAA 0170	Gear Cover
LO 215	Washer-Intermediate Stud	MAA 0171	Locking Co'lar
LO 225	Washer—Grassbox Stud	*NAX 51	Handle Grips
LO 265	Grassbox (Rear Units only)	NC 6100	4" UF Long Thread Lubricator
LO 276U	Handwheel	NC 6101	1/4" UF Short Thread Lubricator
LO 278	10-knife Cylinder (LS 2731/1)	RL 5	Ball Bearings (Skefko)
*LO 280U	Scraper Bracket R.H.	SR 3U	Bearing Cap—Cylinder
*LO 281U	Scraper Bracket L.H.	SR 148AU	Bottom Block
*LO 282U	Scraper Assembly	CUFB 104/7R	Bolt—Carriage L.H.
LOC 16-in.	Spiral Cutters	CUFB 104/10R	Bolt—Carriage R.H. (CUFN 104/A
LS 1639/1	Screw-Locking Collar	CUFB 105/10R	Bolt-Cylinder Bearing Cap
LS 1805/2	Washer—5 dia.	CUFB 105/11R	Bolt—Bottom Block (LS 2626/1)
LS 1806/4	Washer—3" dia.	CUFB 106/9R	Bolt-Overgreen Units only
LS 2115/1	Screw—Gear Cover		CUFN 106/A)
LS 2316/2	Transport Wheel	CUFB 106/10R	Bolt-Overgreen Units only
LS 2316/17	Washer-Transport Wheel		(CUFN 106/A)
LS 2316/27	Free-wheel	CUFB 106/11R	Bo't—Handles (CUFN 106/A)
LS 2317/9	Circlip—1 9/1 Internal	CUFB 106/12R	Bo't—Handles (CUFN 106/A)
LS 2460/20	Bo't—Cover R.H. (LS 1807/32)	CUFB 106/13R	Bolt—Cross Handle
LS 2460/21	Bolt—Cover L.H. (LS 1807/32)	CUFS 104/18R	Screw-Handle Adjusting
*LS 2514/6	Bolt-Handle Grips	CUFS 105/5R	Screw-Land Roll Spindle
LO 41	Bush-Land Roll	CUFS 106/13R	Screw-Cylinder Adjusting
	to Overgreen Outfit	A NAME OF THE PARTY OF THE PART	00000 TO 000000 TO 00000 TO 0000 TO 00000 TO 0000 TO 00000 TO 00000 TO 00000 TO 00000 TO 0000 TO 0000 TO 00000 TO 0000 T

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