OPERATOR'S INSTRUCTIONS

AND

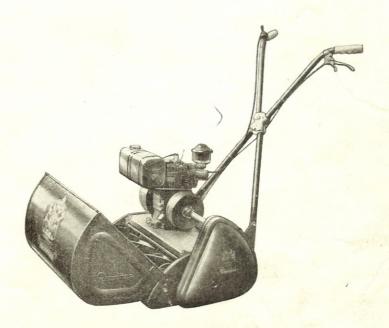
ILLUSTRATED LIST OF PARTS

FOR

Ransomes

"MARQUIS" MOTOR MOWER

18-in. Mark 2 20-in. Mark 3



RANSOMES SIMS & JEFFERIES, LTD

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P.E. C. 6110 (Printed in England)
PRICE 2/-



"MARQUIS" MOTOR MOWER

(ABRIDGED SPECIFICATION)

MAIN FRAME. Pressed steel frame combining strength and lightness.

ENGINE. Clinton 4-stroke motor developing $2\frac{1}{4}$ b.h.p. Fitted with oil bath air cleaner and automatic recoil rope starter.

CLUTCHES. The main clutch is of the automatic centrifugal type. Clutch, plate type, in landroll drive **CUTTING CYLINDER.** 6 knife, all welded cylinder $5\frac{1}{8}$ " (13cm.) diameter.

LAND ROLLS. Two-piece $7\frac{3}{4}$ " (20cm.) diameter landroll with differential action for easy turning.

HANDLES. Tubular steel fitted with durable plastic handgrips. Adjustable in height and width. **PERFORMANCE.** 18" (45cm.) model:—2,000 sq. yds. (1,672 m²) per hour.

20" (51cm.) model:—2,420 sq. yds. (2,023 m²) per hour.

PETROL CONSUMPTION. ½-pint per hour (0.28 litre per hour).

WEIGHTS. 18" (45cm.) machine 156 lbs. (70 Kg.). 20" (51cm.) machine 176 lbs. (80 Kg.).

GENERAL DESCRIPTION

The "Marquis" is a fully driven power mower fitted with a 117 c.c. Clinton 4-stroke engine with automatic recoil rope starter. This smooth running engine drives through a centrifugal clutch and, to give increased manoeuvrability, a plate clutch is incorporated in the land roll drive

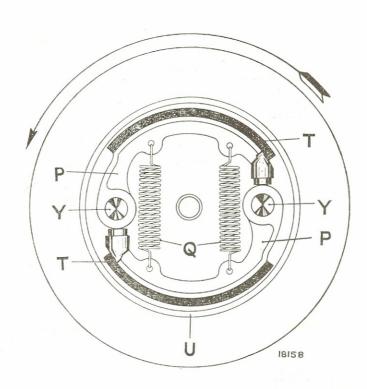
The "Marquis" is so designed that any adjustments that may be necessary can easily be made and the purpose of this instruction book is to enable the owner-user to get the best possible service from his machine. A separate book is issued to cover the Clinton engine.

A list of parts is included in this book and it will help us or our Agents to give prompt attention to any demands if the registered number of the mower is quoted when ordering spares. This number will be found stamped on the name plate, located on the side frame.

MAIN DRIVING CLUTCH

This clutch (Fig. 1) is of the automatic type and comes into operation as the engine speed increases. To delay the action of the centrifugal clutch shoes (P), springs (Q) are fitted which allow an engine speed of up to 500 r.p.m. without engagement. As the engine speed increases above this, the clutch shoes gradually take up the drive. Should an overload be put on the clutch, the tendency will be for the clutch to pull down the engine speed and then slip without stalling the engine. The clutch shoes are lined with bonded Ferodo linings (T) and to detach the shoes release the Allen screw in the clutch ring boss, remove circlip from clutch shaft and slide clutch ring (U) back. The shoes (P) can now be slid off the studs (Y) When replacing the shoes care must be taken to see that the hinged ends point towards the direction of running. It is essential to use the correct lining and method of riveting for this purpose.

CLUTCHES



LAND ROLL PLATE CLUTCH

This clutch will allow the cutting cylinder to remain under power whilst the land roll is disengaged from the motor. The land roll clutch should always be disengaged when starting the motor or when leaving the machine with the motor running. (See fig. 2, page 4).

LUBRICATION

POWER UNIT

For lubrication instructions and recommended oils see the separate engine manual.

MOWERS

The following points should be oiled after every 8 working hours, with the oil gun supplied in the tool kit and using a good quality SAE 30 or 50 oil, NOT grease.

1. Clutch shaft bearing through nipple A. (Fig. 3, page 5).

Land roll spindle bearings through nipple B in R.H. end of spindle (fig. 5, page 8) and through nipple C in L.H. side of deck plate (fig. 3, page 5) (18-in. machines only). The 20 inch machine has sealed bearings.

Land rolls, through nipples S which will be found through surface of each roll

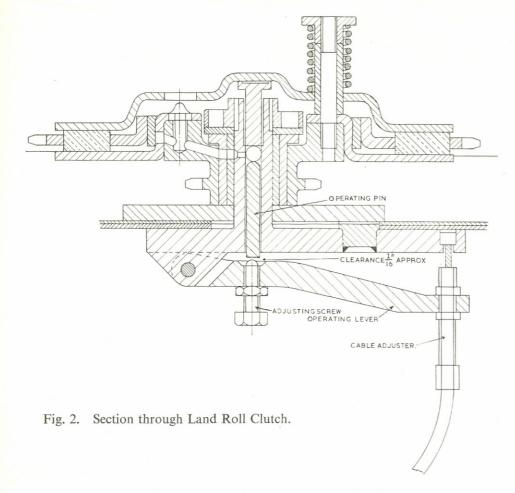
(Fig. 5 page 8).

4. Cutting cylinder bearings through nipples D (fig. 3, page 5).

Land roll clutch through nipple G in outer plate. Chain case must be removed to expose this oiling point (fig. 4, page 6).

Wood rolls. Oil spindle between the rolls and at each end.

Driving chains should be oiled weekly.



OPERATING INSTRUCTIONS

TO START ENGINE

- 1. Consult the appropriate Engine Manual.
- 2. See that the land roll clutch is disengaged.

TO OPERATE MACHINE

The mower can be operated either by driving on the land roll clutch, or by leaving the clutch engaged and driving with the throttle lever through the main centrifugal clutch. This latter method is most convenient for straightforward cutting and the former method for difficult conditions, say, round flower beds and mowing up to blind ends.

To drive on the land roll clutch, allow the engine to warm up, increase the engine speed, then engage the clutch gradually, at the same time opening throttle. Let clutch fully in and the mower will glide forward. Adjust the throttle to achieve a comfortable walking speed. To stop the machine, disengage the clutch and close throttle.

When leaving the machine with the engine running, in order to empty the grass box or for any other reason, throttle down until the cutting cylinder stops revolving, otherwise the rotating cylinder will tend to bruise the grass.

To drive on the centrifugal clutch and throttle allow the engine to warm up, then reduce engine speed until the clutch shaft stops revolving. Engage the landroll clutch and the machine can be controlled solely by the throttle lever. Speeding up the engine will bring the centrifugal clutch into action and consequently the machine will move off. By reducing the engine speed the mower will come to a standstill. With a little practice it will be found that manipulation of these machines, with this self-energising clutch becomes very simple, with an exceptionally smooth take off, especially when starting and stopping in long grass.

For safety purposes the land roll clutch should always be disengaged if the machine is to be left standing for such things as emptying the grass box. The mower should be driven at a comfortable walking pace, and it can be operated and adjusted to suit individual requirements for all types of cutting. Do not try to help the machine to do its work, but simply hold it steady and watch the cutting so as to get a regular and even cut.

ADJUSTMENTS

ADJUSTING THE CUTTERS

Every machine is despatched from our works with the cutting cylinder properly set to the bottom blade, but it is possible that this adjustment may be upset during transit to the user. If the mower does not cut perfectly, set the cutting cylinder carefully to the bottom blade so that the revolving

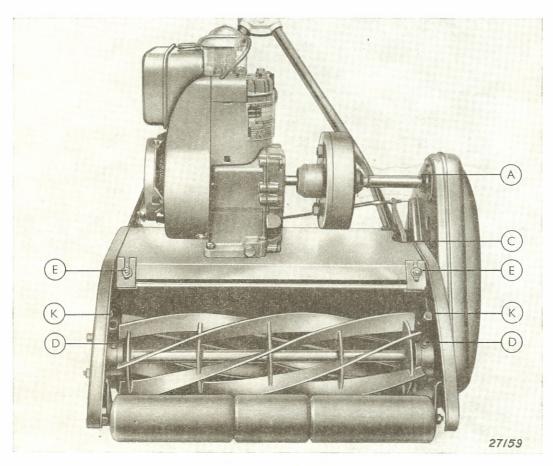


Fig. 3. View of front of Machine.

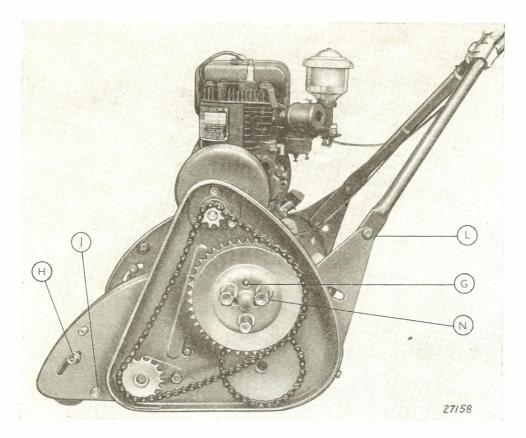


Fig. 4. View of transmission side of machine, with chaincase removed.

cutters just touch the bottom blade throughout the whole length and at the same time causing no great frictional pressure.

For setting the knives a simple method is used, viz: adjusting screws (K)—see fig. 3—on either side of machine.

To set cutting cylinder closer to the bottom blade, turn screw in a clockwise direction. It is advisable when adjusting to make a small adjustment to each screw alternatively.

When correctly set, the cutters should revolve freely and at the same time cut a leaf or piece of writing paper cleanly, when held at the edge of the bottom blade. This test should be made over the entire width of the blade.

If the cutting cylinder is set hard on to the bottom blade no cleaner cut is made, but extra work and undue wear is put on the machine.

After adjustments make sure that the cutting cylinder driving chain is not too tight.

CAUTION—Never touch the cutting cylinder when engine or motor is running.

TO ALTER HEIGHT OF CUT

Slacken the nuts H and J (fig. 4, page 6) and slide brackets up or down as required, taking care to see that the front roll is kept square to the bottom block.

CAUTION—The mower should never be used with the bottom blade pressing on the lawn. If it does, the spiral cutters are liable to be damaged by the bottom blade being forced upwards; the machine will also work heavily and the turf will be badly marked. It is fallacy to think that grass is cut shorter by having the blade hard on or touching the ground. If the blade is just clear of the ground, it does not press the grass down and a cleaner cut is made.

To see if the height of cut is set correctly, tilt the mower backwards until it rests on its handles, place a straight edge across the land and front rolls; the bottom blade should be clear of the straight edge. In dry weather $\frac{1}{8}$ " to $\frac{3}{16}$ " and in wet weather $\frac{3}{16}$ " to $\frac{5}{16}$ " should be allowed for the mower sinking into the turf.

ADJUSTING THE HANDLES

The height of the handles can be adjusted to suit the user. Slacken the bolts L (fig. 4 page 6) at the bottom of the handles, alter the height as required, and retighten the bolts.

The width of the handles can be adjusted or offset, for working close to walls. Slacken the bolts in the centre clamp, adjust as required, and re-tighten bolts.

ADJUSTING LAND ROLL CLUTCH

Adjustment is provided at the lower end of the Bowden cable. When adjusted correctly there should be a small amount of play between the end of the operating pin and lever when the clutch is in the drive position, i.e., the clutch should drive firmly when engaged and be completely free when disengaged. The operating pin is shown in fig 2, page 4).

ADJUSTING TRANSMISSION CHAINS

Both chains are adjusted by positioning the land roll plate clutch assembly. (Fig. 4). To adjust, disengage the clutch by lifting the clutch lever, rotate the outer plate until the two holes line up with two holes in the nut beneath, insert the special clutch pin spanner provided in the tool kit and turn anti-clockwise to slacken nut. Slide the clutch body to tighten the chains and then re-tighten nut. When adjusted correctly the chains should be slightly slack in all directions. (see fig. 4, page 6)

If at any time a chain is removed, take care when replacing that the gap in the spring clip

points away from the direction of rotation.

ADJUSTING THE CONCAVE.

When cutting grass under various conditions the user may find that the cuttings tend to be thrown clear of the grass box. To eliminate this the concave should be adjusted. First check that the base of the concave registers correctly with the back edge of the bottom block. Slacken the two self locking nuts on the front edge of the main frame E (fig. 3, page 5) and move the concave forwards until there is approximately inch clearance between the cutting cylinder and the concave on the centre line. In some cases, this may be more easily achieved by reversing the position of the fixing lugs. Re-tighten lock-nuts after adjustment. The grass should now be thrown into the grassbox, striking the back of the box on a line approximately one inch from the top edge.

If, after this adjustment, the grass is still not collected cleanly, do not attempt to alter the position of the grassbox. A worn or misaligned cutting cylinder or concave with incorrect profile will cause poor grass delivery, and in either of these cases your Service and Repair Agent should be

consulted.

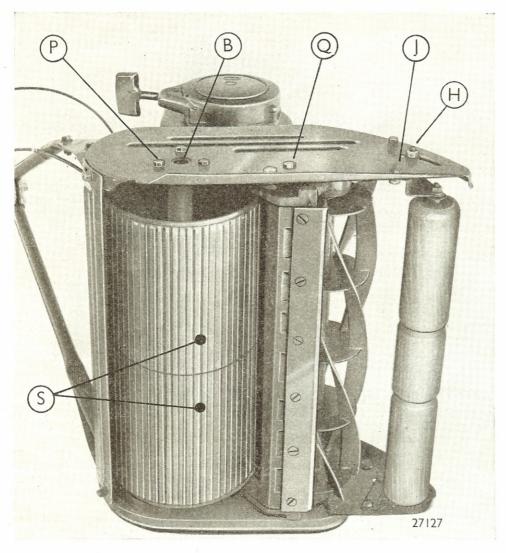


Fig. 5

MAINTENANCE

REMOVING LAND ROLL ASSEMBLY

First undo screw in chain case and remove it and then take off land roll clutch assembly complete with chains. To remove this assembly proceed as follows. Undo the three hexagonal nuts N (fig. 4, page 6), and take off springs and distance tubes: the outer plate, chain wheel and chains can now be removed. Using the special pin spanner, slacken and remove the securing nut, and remove intermediate chain wheel and clutch stiffener plate.

Now unscrew the chain wheel on the land roll spindle noting that this component has a L.H, thread. To prevent the land roll spindle turning with the chain wheel, engage the special key (LCG 427) in the slot at the opposite end of the spindle. After removing the set screws P (fig. 5, page 8) (three each side of the machine) which secure the land roll spindle bearings, the entire assembly may be dropped out of the main chassis. Assemble in reverse order.

REMOVING CUTTING CYLINDER AND BOTTOM BLADE ASSEMBLY

Remove chaincase cover, concave and driving chains. Prevent the cutting cylinder turning by placing a piece of wood in cutters and unscrew the cylinder pinion, noting that this spinion has a L.H. thread. Remove the two screws Q (fig. 5, page 8) from each side of the machine which secure the cutting unit and the entire assembly can be dropped out of the mower.

REMOVING FRONT ROLL ASSEMBLY

Loosen off height adjusting nuts H (fig. 4, page 6) and drop the wood roll spindle until it is clear of the chassis. Remove nuts on end of wood roll spindle and draw out spindle. If it is desired to remove the adjusting brackets undo completely the height adjusting nuts and withdraw the brackets from their pivot bolts. Assemble in the reverse order.

GENERAL ADVICE

After the first few hours use the machine should be checked to see that all bolts and nuts are still tight.

Every machine leaves our factory in perfect condition. If any damage is apparent when delivery is made, report the details at once to the makers or to the agent supplying the machine.

Do not start the engine in your shed or garage unless the doors are open as exhaust fumes are dangerous.

Before cutting, make sure the lawn is free from stones, etc., these may well damage the cutting cylinder.

Do not refuel while the engine is running, petrol (gasoline) spilt on a hot engine may well cause a fire, and avoid spilling fuel on the lawn as this will destroy grass.

The mower should not be put away with grass cuttings left in the box.

Always stop the engine before touching cutting cylinder or driving chains.

After using the machine apply a little oil with a brush to all the cutters. This will prevent them from rusting.

CORRECTION OF MINOR FAULTS

FAULT

Grass is cut in uneven strips leaving a "step" between each cut. Grass is cut unevenly in wavy or

hummocky fashion.

Grass is torn off instead of being cut cleanly.

Grass is entirely removed and mower works very hard.

Engine races but mower moves forward sluggishly.

Cuttings not entering grassbox properly.

REMEDY

Front rolls are not square with bottom blade. Make necessary adjustments as per instructions on page 6.

Alignment of cutting cylinder has been upset, probably through running into an obstruction. Consult your nearest Service Agent.

Adjust cutting cylinder to bottom blade (see page 5). If grass is still not cut cleanly, cutting blades require grinding.

Bottom blade is set too low. Check for correct clearance. (See page 6).

Cylinder may have run into an obstruction. Stop engine and clear. If no obstruction this may be due to clutch slip. Adjust cable and if fault is not cured, fit new pads to clutch plate.

Adjust throw of concave (see page 7).

ILLUSTRATED LIST OF PARTS

"MARQUIS" MOTOR MOWER

18-in. AND 20-in. MODELS

Main Frame, Engine and Handles (Section 1) ... Pages 10—13
Cutting Units and Front Rolls (Section 2) Pages 12—14—16
Land Rolls and Transmission (Section 3) Pages 16—19
Tool List Page 19

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.

Spare parts for the Engine will be found in the Maker's Engine Manual.

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 its mating part.

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

The system of notation for ironmongery has recently been revised. Marks shown in square brackets refer to the old system of notation.

18" Machine.

ENGINE, MAIN FRAME AND HANDLES Section 1. (See Fig. 6).

Mark	Description	Mark	Description
C 7	Rivets—Clutch Linings	LCG 99	Bearing Housing—Clutch Shaft
	[Illustrated as C6]	LCG 100	Spacing Washer
CUFB 104/4R	Bolts-Clutch Shaft Bearings	LCG 101	Cover Plate
	(CUFN 104/A)	LCG 102	Felt Washer
CUFB 105/5R	Bolts-Handle Tube, bottom	LCG 189	Cover Plate—Cylinder Slot
	(CUFN 105/A)	LCG 1329	Clip—Clutch Cable
CUFB 105/6R	Bolts-Handle Tube, bottom	LCG 1487	Clutch Cable
	(CUFN 105/A)	LCO 228	Clutch Lever
CUFB 105/9R	Bolts—Engine Feet	LCO 438	Stud—Clutch Shoe
CUFB 106/13R	Bolts—Handle Clamp		(CUFN 208/A)
	(CUFN 106/A)	LCO 457	Clutch Ring
CUFS 106/6R	Screws—Bottom Block	LMA 9B	Grassbox Complete
GSF 2150C	Washer—¼" dia. [LS 1806/2]	LMS 271	Clutch Shoes Complete
GSF 2150D	Washer—5" dia. [LS 1806/3]	MAA 0078	Flywheel
GSF 2202EX	Key—Clutch Ring [LS 2307/38]	MAA 0535A	Handle Tube—Top
LS 2316/24	Handle Grips	MAA 0537A	Handle Clamp
GSF 1056AX	Circlip—Clutch Ring	MAA 0662	Concave Complete
NC 6100	Lubricator	LCG 1224	Clutch Shaft
No 100S	Throttle Lever	MBA 1440	Engine Complete
RL 5	Ball Bearing—Clutch Shaft	MBA 0630	Main Frame
SD 4904A	Spring—Clutch Shoes	MBA0870	Handle—Tube bottom
SD 4982	Clutch Linings	MBA 1436	Throttle Cable
SD 5199	Bush—Clutch Shoes	*MBA 1437	Cable Clevis
LAJ 38	Rubber Buffer—Clutch Shoes	*MBA 1438	Cable Spring Bracket
LAY 63	Clip Clutch and Throttle Cables	*MBA 1439	Cable Bracket

Not illustrated

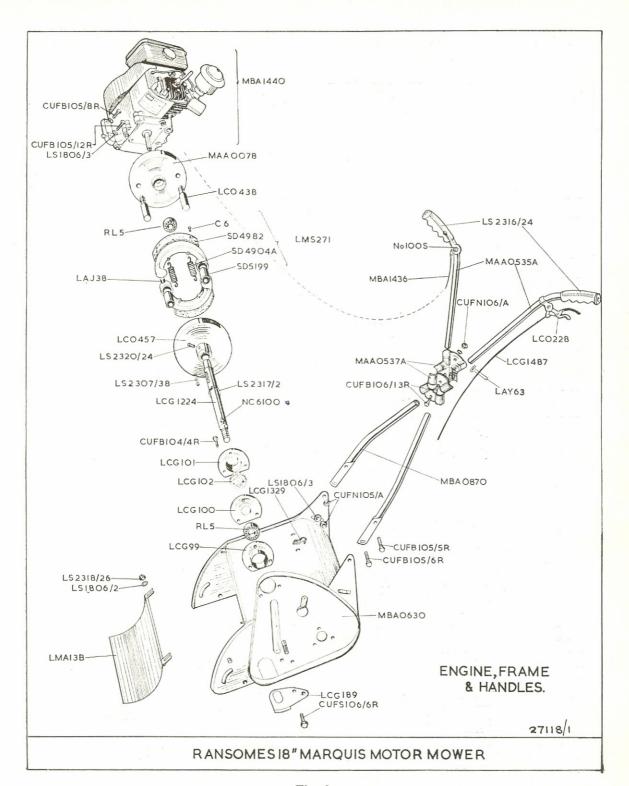


Fig. 6

20" Machine. ENGINE, MAIN FRAME AND HANDLES Section I. (See Fig. 7).

Mark	Description	Mark	Description
C7	Rivets—clutch linings (Illus- as C6)	LCG 1487	Clutch Cable
CUFB 104/4R	Bolt—clutch shaft bearing	LCO 228	Clutch Lever
	(CUFN 104/A)	LCO 438	Stud—Clutch Shore
CUFB 105/5R	Bolts-Handle Tube, bottom		(CUFN 208/A)
	(CUFN 105/A)	LCO 457	Clutch Ring
CUFB 105/6R	Bolts-Handle Tube, bottom	LMS 271	Clutch Shoes Complete
	(CUFN 105/A)	MAA 0078	Flywheel
CUFB 105/8R	Bolts—Engine Feet	MAA 0080	Clutch Shaft
CUFB 105/12R	Bolt—engine mounting	MAA 0535A	Handle Tube—Top
CUFB 106/13R	Bolts—Handle Clamp	MAA 0537A	Handle Clamp
	(CUFN 106/A)	MBA 1441	Engine Complete
CUFS 106/6R	Screws—Bottom Block	MBA 1436	Throttle Cable
GSF 1056AX	Circlip—clutch ring	MBA 1437 *	Cable Clevis
GSF 2150C	Washer—¼" dia.	MBA 1438 *	Spring Bracket—Cable
GSF 2150D	Washer— 5 dia.	MBA 1439 *	Cable Bracket
GSF 2202EX	Key—clutch ring	MBA 1608	Main Frame
LS 2316/24	Handle grips	MBA 1612	Concave Complete
LAJ 38	Rubber Buffer—Clutch Shores	MBA 1617	Handle Tube—bottom
LAY 63	Clip Clutch and Throttle Cables	MBA 1619	Grassbox
LCG 99	Bearing Housing—Clutch Shaft	NC 6100	Lubricator
LCG 100	Spacing Washer	100S	Throttle Lever
LCG 101	Cover Plate	RL5	Ball Bearing—Clutch Shaft
LCG 102	Felt Washer	SD 4904A	Spring—Clutch Shoes
LCG 189	Cover Plate—Cylinder Slot	SD 4982	Clutch Linings
LCG 1329	Clip—Clutch Cable	SD 5199	Bush—Clutch Shoes
		* Not	illustrated

18" Machine. CUTTING UNIT AND FRONT ROLLS Section 2 (See Fig. 8).

Mark	Description	Mark	Description
CUFB 105/5R	Bolt-Front Roll Carriage	LCG 1041	Nut—Gear Cover
	(CUFN 105/A)	LCG 1119	Cutting Cylinder—6 knife
LB 77	Adjusting Spring	LCG 1657	Cutting Cylinder—5 knife
LO 12	Dust Washer	LIH 18 ¹ ₈	Bottom Blade
LO 13	Dust Cover	LMA 477A	Cutting Unit—complete
GSF2150D GSF2150H	Washer— $\frac{5}{16}$ dia. [LS 1806/3] Washer— $\frac{9}{16}$ dia. [LS 1806/7]	LMS 2740	Cylinder with bearings and hous- ings—6 knife
LS 2514/4	Bolt—Front Roll Carriage (CUFN 105/A)	LMS 2742	Cylinder with bearings and hous- ings—5 knife
LS 2521/7	Screw—Bottom Blade	LMS 3728	Bottom Block and Blade
*NA 42C	Side Rolls	MAA 0639	Housing L.H.
NC 6100	Lubricator	MAA 0640	Housing R.H.
RL 5	Ball Bearing	MAA 0641	Adjusting Screw (LS 2318/27)
SD 5988	Front Roll—outer	MAA 0643	Pivot Stud—Bottom Block
LAS 202C	Front Rolls—complete	MBA 0641	Carriage—Front Roll L.H.
*LAS 202D	Side Rolls—complete	MBA 0642	Carriage—Front Roll R.H.
LK 18in	Spiral Cutter	MBA 0643	Pivot Washer—Carriage
LCC 21	Front Roll—inner	MBA 0498	Bottom Block
LCG 156	Felt Washer	MBA 0873	Spindle—Front Roll
LCG 364U	Cylinder Spindle		(LS 2318/27)
LCG 1034	Gear Cover		

^{*} Not illustrated.

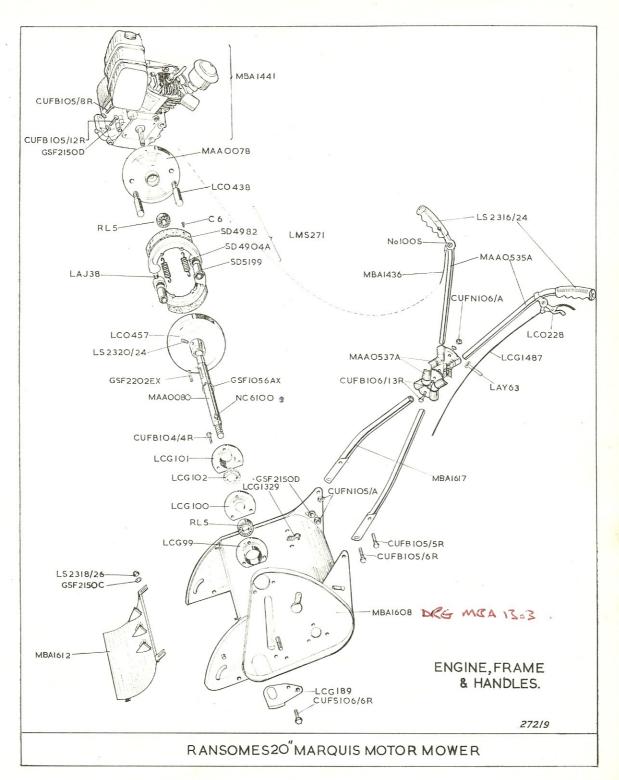


Fig. 7

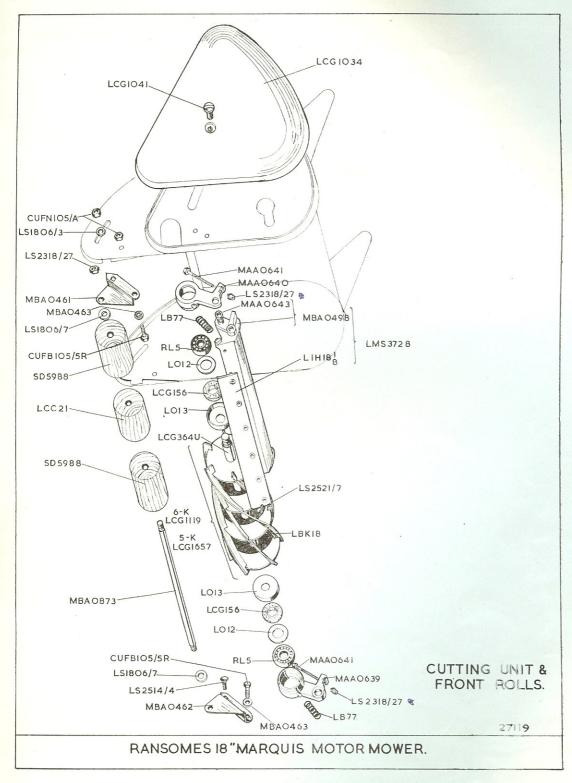


Fig. 8

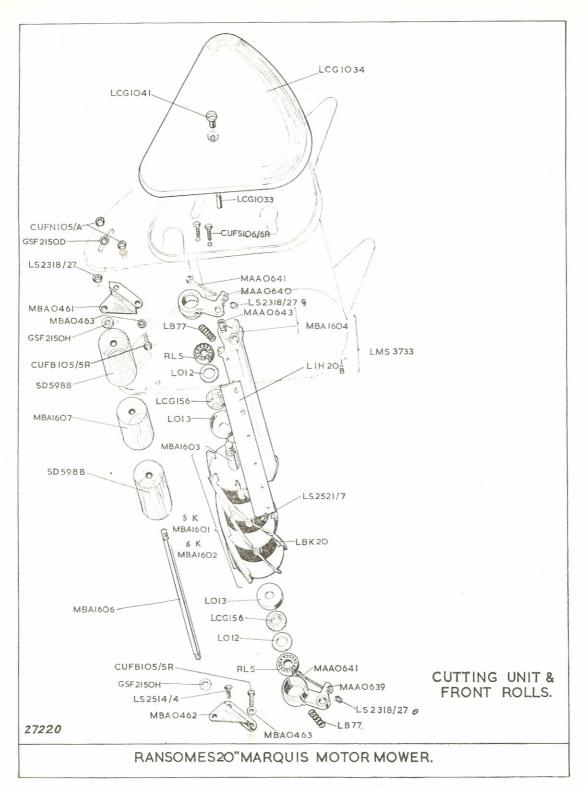


Fig. 9

20" Machine. CUTTING UNIT AND FRONT ROLLS Section 2. (See Fig. 9).

Mark	Description	Mark	Description
CUFB 105/5R	Bolt—Front Roll Carriage	LS 2514/4	Bolt—Front Roll Carriage
	(CUFN 105/A)		(CUFN 105/A)
GSF 2150D	Washer— $\frac{5}{16}$ " dia.	LS 2521/7	Screw—Bottom Blade
GSF 2150H	Washer— 9 dia.	MAA 0639	Housing L.H.
LB 77	Adjusting Spring	MAA 0640	Housing R.H.
*LAS 204A	Front Rolls—complete	MAA 0641	Adjusting Screw (LS 2318/27)
*LAS 204B	Side Rolls—complete	MAA 0643	Pivot Stud-Bottom Block
LBK 20in.	Spiral Cutter	MBA 0461	Carriage—Front Roll L.H.
LCG 156	Felt Washer	MBA 0462	Carriage—Front Roll R.H.
LCG 1033	Distance Tube	MBA 0463	Pivot Washer—Carriage
LCG 1034	Gear Cover	MBA 1601	Cutting Cylinder—5 knife
LCG 1041	Nut-Gear Cover	MBA 1602	Cutting Cylinder—6 knife
LIH 20½	Bottom Blade	MBA 1603	Cylinder Spindle
LMA 488A	Cutting Unit—complete	MBA 1604	Bottom Block
LMS 2744	Cylinder with bearings and hous-	MBA 1606	Spindle—Front Roll (LS 2318/27
	ings—6 knife	MBA 1607	Front Roll-inner
LMS 2745	Cylinder with bearings and hous-	*NA 42C	Side Rolls
	ings—5 knife	NC 6100	Lubricator
LMS 3733	Bottom Block and Blade	RL 5	Ball Bearing
LO 12	Dust Washer	SD 5988	Front Roll —outer
LO 13	Dust Cover		
	* Not	Illustrated	

18" Machine. LAND ROLL AND TRANSMISSION Section 3. (See Fig. 10).

Mark	Description	Mark	Description
CUFB 104/5R	Bolt—Scraper (LS 2318/26)	LCG 1448	Screw—Clutch Lever
CUFB 105/5R	Bolt—Landroll Housing		(CUFN 204/A)
LA 25A	Pawl Box	LCG 1452	Clutch Pads
GSF 2150C	Washer—¼" dia. [LS 1806/2]	LCG 1453	Bush-Intermediate Chain Wheel
LS 2309A/33	Rivet—Clutch Lever	LCG 1458	Bush-Intermediate Pinion
LS 2309A/74	Rivet—Pawls	LCG 1468	Stiffener Plate—Clutch
LS 2316/1	Cotter Pin—Pawl Box	LCG 1469	Clutch Bearing
LS 2320/34	Setscrew—Distance Piece	LCG 1470	Locking Washer—Clutch
NC 6100	Lubricator—Housings	LCG 1471	Securing Nut—Clutch
NO 4967	Lubricator—Landrolls	LCG 1475	Operating Rod—Clutch
111049/39	Chain—Landroll Drive	LCG 1476	Flanged Rod-Clutch
111049/68	Chain—Cylinder Drive	LCG 1479	Outer Plate—Clutch
SD 5455	Landroll R.H. (Male)	LCG 1480	Distance Tube
SD 5456	Landroll L.H. (Female	LCG 1481	Nut—Clutch Spring
SD 5467	Distance Piece R.H.	LCG 1482	Clutch Spring
TC 17	Pawls	LCG 1626	Scraper-Land Roll
LCG 356U	Spindle-Landroll	LMA 407	Back Plate complete—Clutch
LCG 360	Distance Piece L.H.	LMA 408	Intermediate Chain Wheel-
LCG 1087	Landroll Chain Wheel		complete
LCG 1176	Cutting Cylinder Pinion	LMA 409	Intermediate Pinion-complete
LCG 1236	Sprocket—Clutch Shaft	LMS 447	Pawl Box complete
LCG 1437	Back Plate—Clutch	MBA 0629	Bearing Housing complete
LCG 1445	Lever—Clutch	MBA 0455	Housing RHLand Roll.
		MGE 82	Steel Ball—Clutch

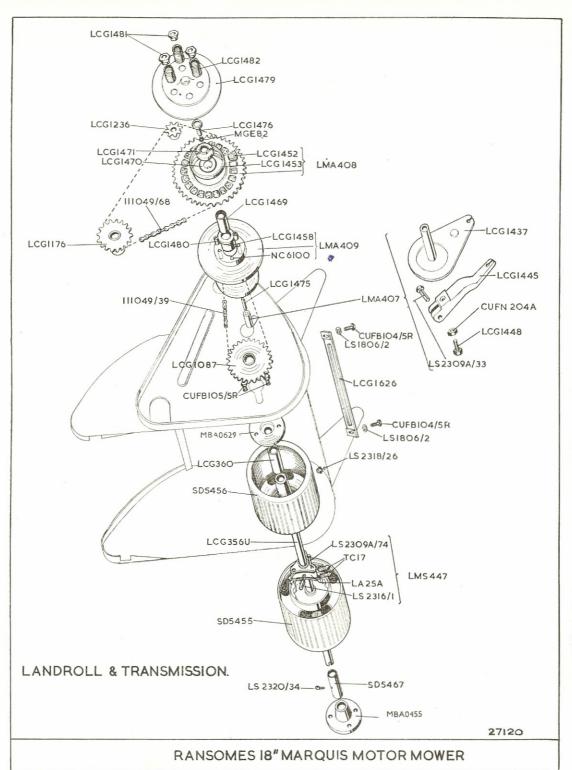


Fig. 10

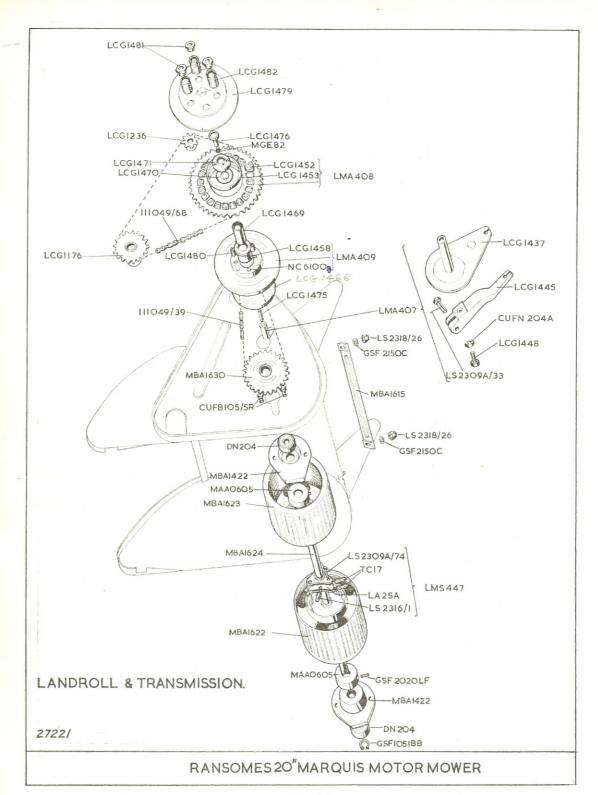


Fig. 11

20" Machine. LAND ROLL AND TRANSMISSION Section 3. (See Fig. 11).

Mark	Description	Mark	Description
CUFB 105/5R	Bolt—Landroll Housing	LMA 407	Back Plate complete—Clutch
DN 204	Ball Bearing	LMA 408	Intermediate Chain Wheel com-
GSF 1051 BB	Circlip—Bearing R.H.		. plete
GSF 2020 LF	Screw—Stop Collar	LMA 409	Intermediate Pinion—complete
GSF 2150 C	Washer—¼" dia.	LMS 447	Pawl Box complete
LCG 1176	Cutting Cylinder Pinion	LA 25A	Pawl Box
LCG 1236	Sprocket—Clutch Shaft	LS 2309A/33	Rivet—Clutch Lever
LCG 1437	Back Plate—Clutch	LS 2309A/74	Rivet—Pawls
LCG 1445	Lever—Clutch	LS 2316/1	Cotter Pin—Pawl Box
LCG 1448	Screw—Clutch Lever	LS 2318/26	Nut-Scraper Bolt
	(CUFN 204/A)	LS 2320/34	Setscrew—Distance Piece
LCG 1452	Clutch Pads	NC 6100	Lubricators—Housings
LCG 1453	Bush-Intermediate Chain Wheel	NO 4967	Lubricators—Landrolls
LCG 1458	Bush—Intermediate Pinion	111049/39	Chain—Landroll drive
LCG 1468	Stiffener Plate—Clutch	111049/68	Chain—Cylinder drive
LCG 1469	Clutch Bearing	TC 17	Pawls
LCG 1470	Locking Washer—Clutch	MAA 0605	Stop Collar-Landroll
LCG 1471	Securing Nut—Clutch	MBA 1422	Bearing Housing
LCG 1475	Operating Rod—Clutch	MBA 1615	Scraper—Land Roll
LCG 1476	Flanged Rod—Clutch	MBA 1622	Land Roll R.H. (Male)
LCG 1479	Outer Plate—Clutch	MBA 1623	Land Roll L.H. (Female)
LCG 1480	Distance Tube	MBA 1624	Land Roll Spindle
LCG 1481	Nut —Clutch Spring	MGE 82	Steel Ball—Clutch
LCG 1482	Clutch Spring		
	50		

18" and 20" Machines. TOOL LIST (not illustrated).

Mark	Description	Mark	Description
GSF 5011 AH	Spanner ¼"× 5 " UF	*LCG 427	Key for Landroll
GSF 5021 AG	Spanner $\frac{3}{8}'' \times \frac{5}{16}''$ UF	LCG 1491	Clutch Spanner
LCC 149	Tool Wrap	LSA 195	Tommy Bar
LS 2506/4	Oil Gun	MBA 1597	Plug Spanner
LS 2507/1	Screwdriver	46400007	Spanner $\frac{1}{4}$ " $\times \frac{1}{8}$ " B.S.W.
LS 2507/11	Plug Gauge	W4	Allan Key-1" U.F.
LS 2508/5A	Box Spanner		

^{*} Not included in standard tool kit supplied with each machine

RANSOMES SIMS & JEFFERIES, LTD

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