

TOOL LIST (not illustrated)

| Part No. | Description | Part No. | Description |
|-------------|---|-------------|----------------|
| GSF 5001 AH | Spanner— $\frac{1}{4}$ " x $\frac{3}{8}$ " UF | GSF 5046 AH | Tommy bar |
| GSF 5001 AK | Spanner— $\frac{1}{8}$ " x $\frac{1}{4}$ " UF | H 090002 | Tool wrap |
| GSF 5006 AN | Spanner— $\frac{1}{2}$ " UF | GSF 5051 BB | Oil gun |
| GSF 5006 AW | Spanner— $\frac{1}{4}$ " UF | H 090011 | Oil can |
| GSF 5026 AK | Box spanner— $\frac{1}{4}$ " UF | LCO 0230 | Clutch spanner |
| GSF 5040 AE | Allen key— $\frac{1}{4}$ " UF | | |

CROSS REFERENCES

| New Mark | Old Mark | New Mark | Old Mark | New Mark | Old Mark |
|-------------|-----------------|------------|-----------|-------------|------------------------|
| GSF 2001 EF | UFB 106/12R | LCO 0077 | LCO 77 | LMAY 351 E | LMA 351 E |
| GSF 2001 EX | UFB 106/28R | LCO 0078 | LCO 78 | LMAY 355C | LMA 355 C |
| GSF 2002 AB | UFB 104/4R | LCO 0081 | LCO 81 | LMAY 359 B | LMA 359 B |
| GSF 2002 AC | UFB 104/5R | LCO 0084 | LCO 84 | LMAY 369 | LMA 369 |
| GSF 2002 AD | UFS 104/6R | LCO 0097 | LCO 97 | LMAY 370 | LMA 370 |
| GSF 2002 CC | UFB 105/5R | LCO 0100 | LCO 100 | LMAY 371 | LMA 371 |
| GSF 2002 CD | UFB 105/6R | LCO 0105 | LCO 105 | LMAY 372 | LMA 372 |
| GSF 2002 CF | UFB 105/8R | LCO 0106 | LCO 106 | LMAY 373 | LMA 373 |
| GSF 2002 EC | UFB 106/5R | LCO 0119 | LCO 119 | LMAY 374 | LMA 374 |
| GSF 2002 ED | UFB 106/6R | LCO 0124 | LCO 124 | LMAY 381 | LMA 381 |
| | | LCO 0145 | LCO 145 | LMAY 415 | LMA 415 |
| GSF 2051 AA | CUFN 104/A | LCO 0170 | LCO 170 | LMAY 636 | MBA 2385 |
| GSF 2051 AB | UFN 105/A | LCO 0171 | LCO 171 | LMAY 510 | LMA 510 |
| GSF 2051 AC | UFN 106/A | LCO 0188 | LCO 188 | LMAY 511 | LMA 511 |
| GSF 2052 AB | UFN 205/A | LCO 0191 | LCO 191 | LMAY 512 | LMA 512 |
| GSF 2059 AA | NP-D86 | LCO 0192 | LCO 192 | LMSY 448 | LMS 448 |
| GSF 2059 CB | NP-D106 | LCO 0193 | LCO 193 | LMSB 766 | LMS 2766 |
| GSF 3002 MR | SD 5584 | LCO 0194 | LCO 194 | LMSC 026 Z | MAA 0769 |
| GSF 3354 CE | F 7 | LCO 0195 | LCO 195 | LMSC 027 Z | MAA 0771 |
| | | LCO 0196 | LCO 196 | LMSC 141 | LMS 3141 |
| GSF 5051 BB | LS 2506/3 | LCO 0200 | LCO 200 | LMSC 570 | LMS 3570 |
| H 001102 | RL 5 | LCO 0206 | LCO 206 | LMSC 659 | LMS 3659 |
| H 001103 | RL 6 | LCO 0211 | LCO 211 | LMSC 739 | LCO 255 |
| H 001104 | RL 7 | LCO 0212 | LCO 212 | LMSC 797 | LMS 3797 |
| H 001543 | RMS 6 | LCO 0214 | LCO 214 | LMSC 799 | LMS 3799 |
| H 004005 | LCO 320 | LCO 0215 | LCO 215 | LMSC 802 | LMS 3802 |
| H 011090 | CS 1957 | LCO 0222 | LCO 222 | LMSC 808 | LMS 3808 |
| H 013316 | CS 4718 | LCO 0225 | LCO 225 | LMSD 258 | LCO 112 |
| H 013331 | CS 4720 | LCO 0227 | LCO 227 | LMSD 264 | LCO 144 |
| H 041158 | 110048/43 | LCO 0229 | LCO 229 | LMSD 265 | LCO 146 |
| H 041163 | 110048/75 | LCO 0230 | LCO 230 | LMSD 266 | LCO 147 |
| H 041164 | 110048/80 | LCO 0254 | LCO 254 | LMSD 267 | LCO 464 |
| H 084001 | LS 2316/1 | LCO 0265 | LCO 265 | LMSD 271 | LCO 457 |
| H 090002 | LS 2316/20 | LCO 0267 | LCO 267 | LMSD 274 | LCO 631 |
| H 090011 | LS 2506/11 | LCO 0268 | LCO 268 | LMSD 485 | LCO 281 |
| H 100004 | LCO 633 | LCO 0271 | LCO 271 | LMSD 486 | LCO 282 |
| H 101409 | SA 3737 | LCO 0272 | LCO 272 | LMSY 758 | LMS 758 |
| H 210002 | NC 6100 | LCO 0278 | LCO 278 | LMSY 271 | LMS 768 |
| | | LCO 0283 | LCO 283 | LMSY 448 | SD 3543 |
| H 980152 | LCO 228 | LCO 0284 | LCO 284 | LSD 4394 | SD 4394 |
| H 990002 | LS 2316/24 | LCO 0285 | LCO 285 | LSD 4758 | SD 4758 |
| LAJ 0038 | LAJ 38, LBG 102 | LCO 0289 | LCO 289 | LSD 4759 | SD 4759 |
| LASY 206 B | LAS 206 B | LCO 0300 | LCO 300 | LSD 4904 A | SD 4904 A |
| LASY 797 | LAS 797 | LCO 0328 | LCO 328 | LSD 4982 | SD 4982 |
| LCN 0389 | LCN 389 | LCO 0329 | LCO 329 | LSO 2521 E | LS 2521/5 |
| LCO 0030 | LCO 30 | LCO 0370 | LCO 370 | LSO 2521 F | LS 2521/6 |
| LCO 0031 | LCO 31 | LCO 0374 | LCO 374 | LTC 0417 | TC 417 |
| LCO 0033 | LCO 33 | LCO 0377 | LCO 377 | | |
| LCO 0040 | LCO 40 | LCO 0466 | LCO 466 | MBA 7049 | LCA 24 $\frac{1}{4}$ " |
| LCO 0041 | LCO 41 | LCO 0468 | LCO 468 | MBA 7156 | NAN 24 |
| LCO 0068 | LCO 68 | LCO 0542 | LCO 542 | GSF 2002 EF | UFB 106/8R |
| LCO 0069 | LC 069 | LMAY 349 D | LMA 349 D | GSF 2002 AD | UFB 104/6R |
| LCO 0076 | LCO 76 | LMAY 351 D | LMA 351 D | | |

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IPSWICH **ENGLAND**

Telephone : IPSWICH 72222

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B.C. TOOKE

RANSOMES

MATADOR

MOTOR MOWER

24 inch (61 cm)

Mark 2 and 2a

OPERATOR'S INSTRUCTIONS
and
ILLUSTRATED LIST OF PARTS

PRICE 5/- (25p)

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MATADOR Mark 2 MOTOR MOWER

ABRIDGED SPECIFICATION

MAIN FRAME. Pressed steel frame combining strength and lightness.

ENGINE. 288 c.c. J.A.P. Fourstroke type 4/3. Fitted with Amal Carburettor, Wico Magneto and oil bath air cleaner.

CLUTCHES. Centrifugal clutch in main drive. Plate clutch in landroll drive. Cylinder drive clutch.

CUTTING CYLINDER. 5 or 7 knife, 5 $\frac{3}{4}$ " diameter, (146 mm) all welded cylinders running on ball bearings.

LAND ROLLS. Rubber treaded two-part, 9 $\frac{1}{4}$ " (23 cm) diameter incorporating differential, and running on enclosed ball bearings.

PERFORMANCE. $\frac{5}{8}$ acre per hour. (2.500 m²).

PETROL CONSUMPTION. 1 $\frac{1}{2}$ pints (0.85 litre) per hour approx.

WEIGHT. 322 lbs. (146 kg).

GENERAL DESCRIPTION

This mower has been designed for smooth, fast cutting of large lawns, tennis courts, public gardens, etc., and it incorporates many new design features. The petrol engine is fitted with a kick-starter, simple and positive in action, and lightness and strength is ensured by the use of a one-piece pressed and welded steel frame. A centrifugal clutch is incorporated in the main drive, a plate clutch in the landroll drive controlled by a lever at the mower handle, and a cylinder clutch is controlled from a lever on the deck plate. The landroll is rubber treaded to give maximum traction. The tip-over grassbox, of large capacity saves time and labour.

Servicing is easy as all parts needing attention are readily accessible, and the cutting units can be removed as complete assemblies without disturbing the main chassis.

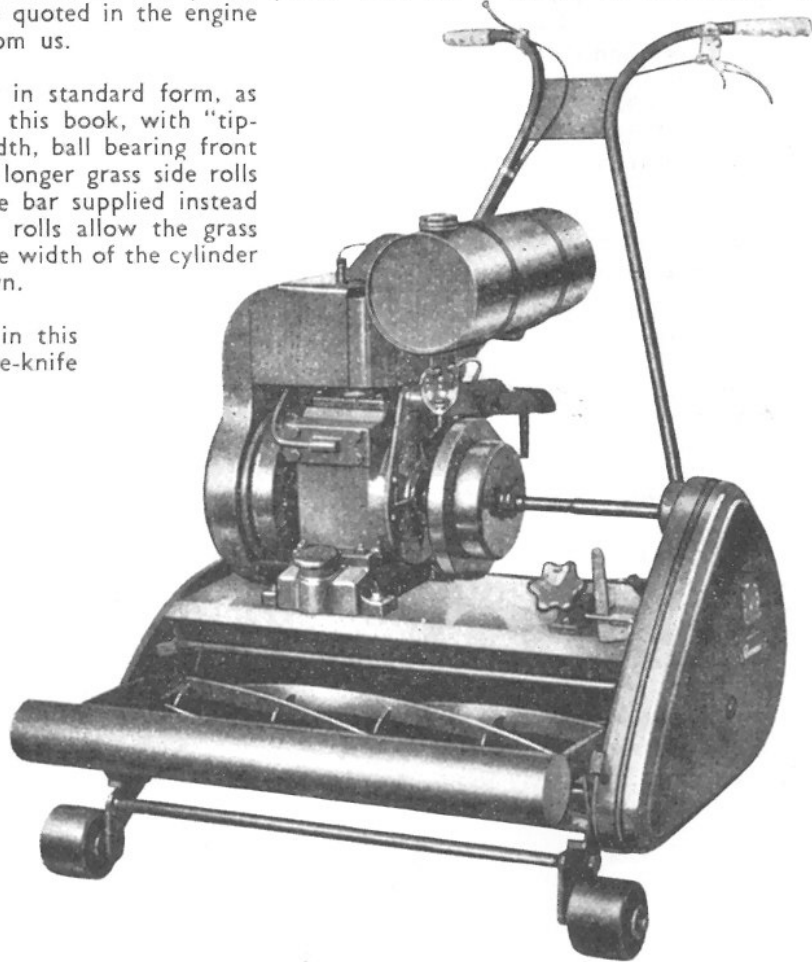
These machines are made in our most up-to-date factory and a lengthy first-class service is assured by the care and attention to detail which is a by-word of all Ransomes products. Nevertheless, in the course of time certain adjustments and routine maintenance will be necessary and the purpose of this manual is to help by explaining how every user can keep his mower in perfect condition.

A list of parts is included in this book, and it will help us and our Distributors to give prompt attention to any demands if the registered number of the mower is quoted when ordering any spares.

A separate book is provided for the petrol power unit but it should be understood that engine replacement parts as quoted in the engine manual can be obtained from us.

The "Matador" is sent out in standard form, as illustrated on the cover of this book, with "tip-over" grassbox and full width, ball bearing front roll. For rough cutting in longer grass side rolls can be fitted, and a balance bar supplied instead of a grassbox. These side rolls allow the grass to be presented to the entire width of the cylinder without being pressed down.

The Matador is illustrated in this form and fitted with a five-knife cylinder.



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.

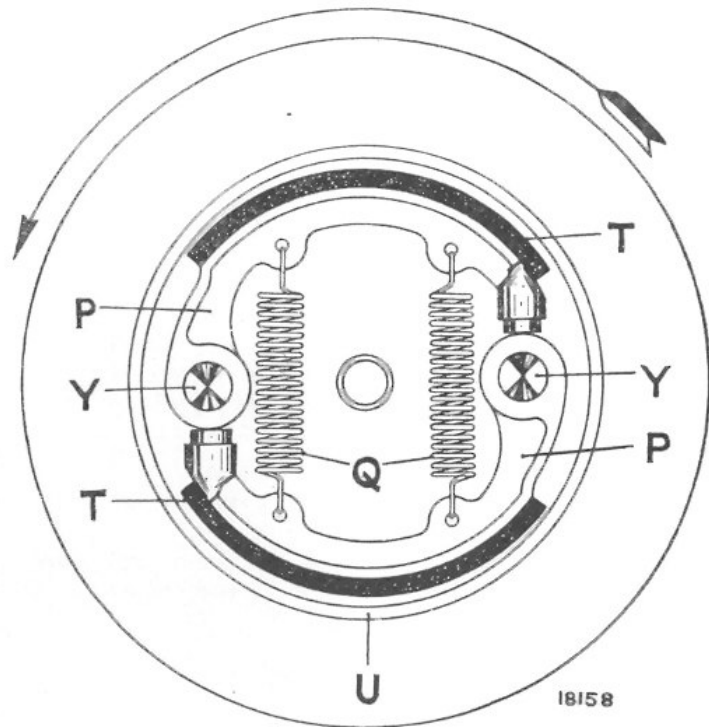


Fig. 1. Main Driving Clutch

LAND ROLL PLATE CLUTCH

This clutch will allow the cutting cylinder to remain under power whilst the land roll is disengaged from the engine. The land roll clutch should always be disengaged when starting the motor or when leaving the machine with the engine running. (See Fig. 2, page 5).

CUTTING CYLINDER CLUTCH

This clutch is provided for the purpose of allowing the cutting cylinder to be put out of action, leaving the machine free to move without cutting, in effect using the machine as a roller only. This clutch is out of gear when the operating lever is in the position nearest to the side frame. To engage the clutch the engine must be idling or stopped, then move the handle away from the side frame.

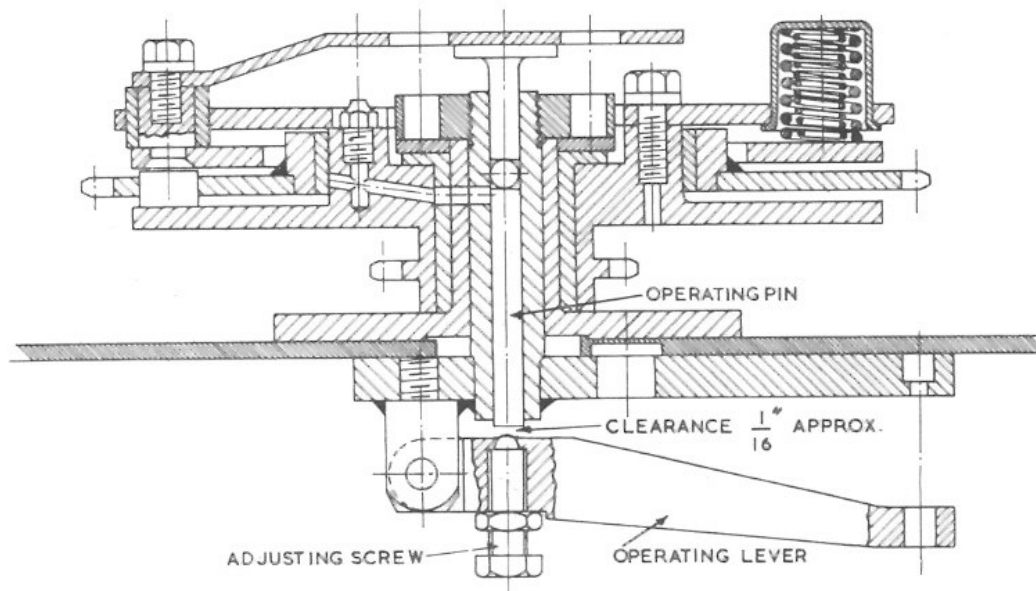


Fig. 2. Section through Land Roll Clutch.

Matador Mowers are fitted with 288 c.c. J.A.P. 4-stroke engines and full lubrication instructions for these units are given in the manual supplied with mower.

Check periodically that the fan is not choked by cut grass.

LUBRICATION — MOWERS

The following points should be oiled every eight working hours the machine is used, with the oil gun supplied in the tool kit and using a good quality SAE 50 oil.

1. Clutch shaft bearing through nipple A. (Fig. 3, page 6).
2. Land roll spindle bearings through nipples in housings.
3. Land rolls, through nipples C which will be found through surface of each roll (Fig. 4, page 7).
4. Cutting cylinder bearings through nipples D. (Fig. 4, page 7).
5. Front roll carriages through nipples E. (Fig. 5, page 8).
6. Front roll through nipple F at each end of roll.
7. Land roll clutch through nipple G in outerplate. (Fig. 3, page 6). Chain case must be removed to expose this oiling point. (Fig. 3, page 6).
8. Starting free wheel. A LITTLE oil through nipple in flywheel.
9. Kick-starter spindles.
10. All other oiling points such as pin joints on carriage rods, chains and kick-starter bearings should be oiled weekly.

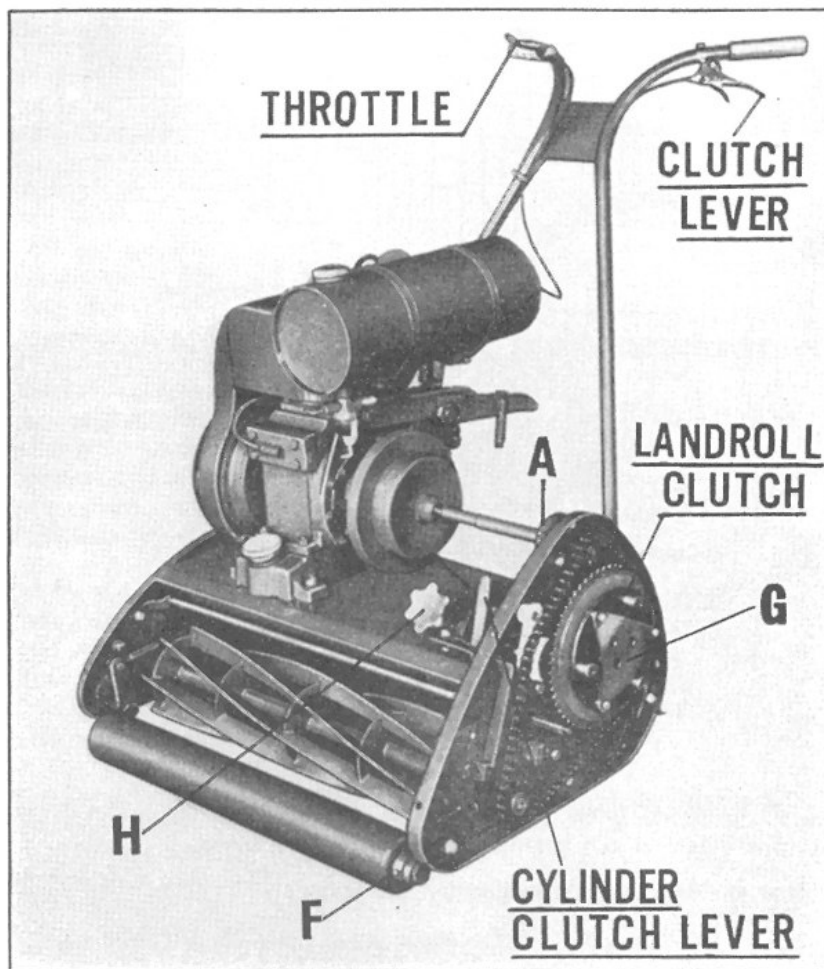


Fig. 3.

OPERATING INSTRUCTIONS

TO START ENGINE

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

TO OPERATE MACHINE

Engage the cylinder clutch lever, the main driving clutch will engage automatically as the engine is speeded up.

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 land roll 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 engine speed the mower will come to a standstill. With a little practice it will be found that the manipulation of these machines, with this self-energising clutch becomes very simple, with an exceptionally smooth take-off, especially when stopping and starting in long grass.

For safety purposes the land roll clutch should be disengaged if the machine is to be left standing for such things as emptying the grass box. The machine 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 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. 4—on either side of machine.

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

When correctly set, the cutters should revolve freely and at the same time be able to cut cleanly a leaf or a piece of writing paper 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 to the machine.

After adjustments make sure that the cutting cylinder driving chain is not too tight, and check that the concave is correctly positioned. (see paragraph on page 9).

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

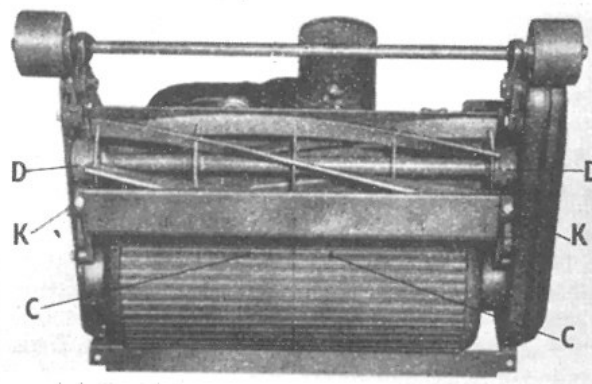


Fig 4.

ADJUSTMENTS

TO ALTER THE HEIGHT OF CUT

This is regulated by the hand nut H (see Fig. 3, page 6) which, if turned in a clockwise direction, raises the cutters. Should the front roller get out of alignment with the main roller, it can be corrected by adjusting the right hand bearing bracket by means of nut "L" (see Fig. 5, page 8), after slackening the clamping bolt. Any adjustment of height of cut can be firmly locked.

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 a 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 $\frac{3}{16}$ in. to $\frac{1}{4}$ in., and in wet weather $\frac{1}{4}$ in. to $\frac{1}{2}$ in. should be allowed for the machine sinking into the turf.

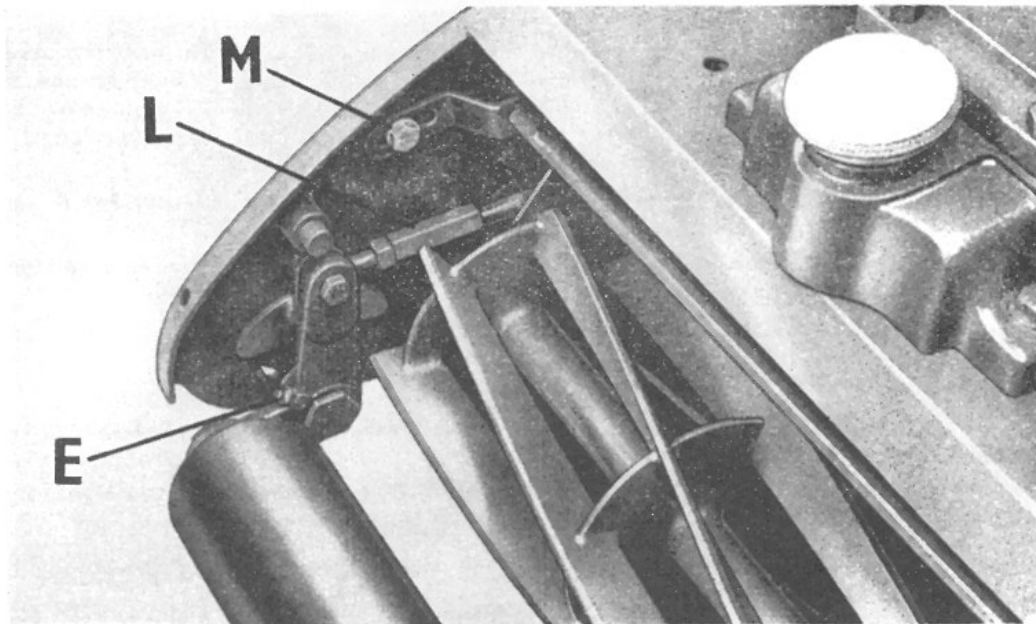


Fig. 5.

ADJUSTING THE HANDLES

The height of the handles can be adjusted to suit the user. Slacken the bolts at the bottom of the handles, alter the height as required and re-tighten the bolts.

ADJUSTING TRANSMISSION CHAINS

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

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 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 disengaged, i.e., the clutch should drive firmly when engaged and be completely free when disengaged.

ADJUSTING THE CONCAVE AND GRASSBOX

CONCAVE. After adjustments have been made to the cutting cylinder, the user may find that the grass cuttings tend to be thrown wide of the grassbox, in spite of the fact the latter is correctly aligned with the machine (see below).

This indicates that the concave needs adjusting. First make sure that the base of the concave registers correctly with the back edge of the bottom block. Now slacken the setscrews "M" (fig. 5) which hold the concave hinge brackets to the side frames and move the concave forward until there is approximately 1/16 in. clearance between the concave and the cutting cylinder on the centre line. Retighten the nuts when this adjustment has been made.

The cuttings should now be thrown into the grassbox, striking the back of the box on a line about one inch from the top edge. If after this adjustment the cuttings are not collected cleanly consult your Service and Repair Agent. A worn or misaligned cutting cylinder or a concave with an incorrect profile will cause poor delivery of grass cuttings into the grassbox.

GRASSBOX. If for any reason the grassbox support arms have been taken off it is essential that when they are replaced, they should be so aligned that the front edge of the grassbox is parallel to the machine. Provision is made for adjustment by slackening the cup headed bolts—(item 9, fig. 6) and moving the support arms to suit. Retighten the bolt securely after the adjustment has been made.

MAINTENANCE

AIR CLEANER

The air cleaner should be examined periodically and cleaned; when used in very dusty conditions frequent inspection is necessary. Running the engine with a choked air cleaner causes a very rich mixture to be drawn into the cylinder.

The oil cup should be washed and refilled every 60 to 120 hours, depending on dust conditions. The wire screens in the cleaner should be washed every 300 hours. To do this, remove them from the oil cup and submerge in petrol.

REMOVING CUTTING CYLINDER AND BOTTOM BLADE ASSEMBLY

Remove chain case and cylinder chain. Remove the two screwed pins from the clutch fork. Unscrew screw in end of spindle by turning clockwise, the pinion and sliding spline will now come off complete with spring. Undo the six bolts securing the cutting unit to the frame; the complete unit can now be withdrawn from the bottom of the machine. Assemble in the reverse order.

REMOVING LAND ROLL ASSEMBLY

Remove chain case and land roll driving chain. Undo the nut in the centre of the land roll chain wheel which will remove the chain wheel. Slacken off and remove the six bolts (three each side) which secure the land roll spindle bearings and the entire assembly can be dropped out of the main chassis. Assemble in the reverse order.

MAINTENANCE

REMOVING FRONT ROLL OR SIDE ROLLS ASSEMBLY

Remove the two bolts (one each side) from the top of the front roll carriages. Take off chain case and then remove the pivot pin bolt from each side. Tap pivot pin inwards so that the shoulder of the pivot pin clears the side frame, disconnect the springs from the side frames and the complete front roll assembly can be lifted out. Assemble in reverse order.

CORRECTION OF MINOR FAULTS

| FAULT | REMEDY |
|---|--|
| Grass is cut in uneven strips, leaving a 'step' between each cut. | Front rolls are not square with bottom blade. Make necessary adjustments as per instructions on page 8. |
| Grass is cut unevenly in wavy or hummocky fashion. | Alignment of cutting cylinder has been upset, probably through running into an obstruction. Consult your nearest Service Agent, a list of whom has been sent with your machine. |
| Grass is torn off instead of being cut cleanly. | Adjust cutting cylinder to bottom blade (see page 7). If grass is still not cut cleanly, cutting blades require grinding. |
| Grass is entirely removed and mower works very hard. | Bottom blade is set too low. Check for correct clearance. (See page 7). |
| Engine races but mower moves forward sluggishly. | 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 clutch chainwheel. |
| Cuttings not entering grassbox properly. | Adjust throw of concave (see page 9). |

GENERAL ADVICE

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.

ILLUSTRATED LIST OF PARTS

24 inch MATADOR Mark 2 & 2A

| | |
|--|-------------|
| MAIN FRAME, HANDLES, PRIMARY DRIVE AND GRASS BOX (Section 1) ... | Pages 12—13 |
| LAND ROLLS AND TRANSMISSION (Section 2) | Pages 14—15 |
| CUTTING UNIT (Section 3) | Pages 16—17 |
| FRONT ROLLS AND SIDE ROLLS (Section 4) | Pages 18—19 |
| TOOL LIST (Section 5) | Page 20 |

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.

 MK.1A - B02452

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.

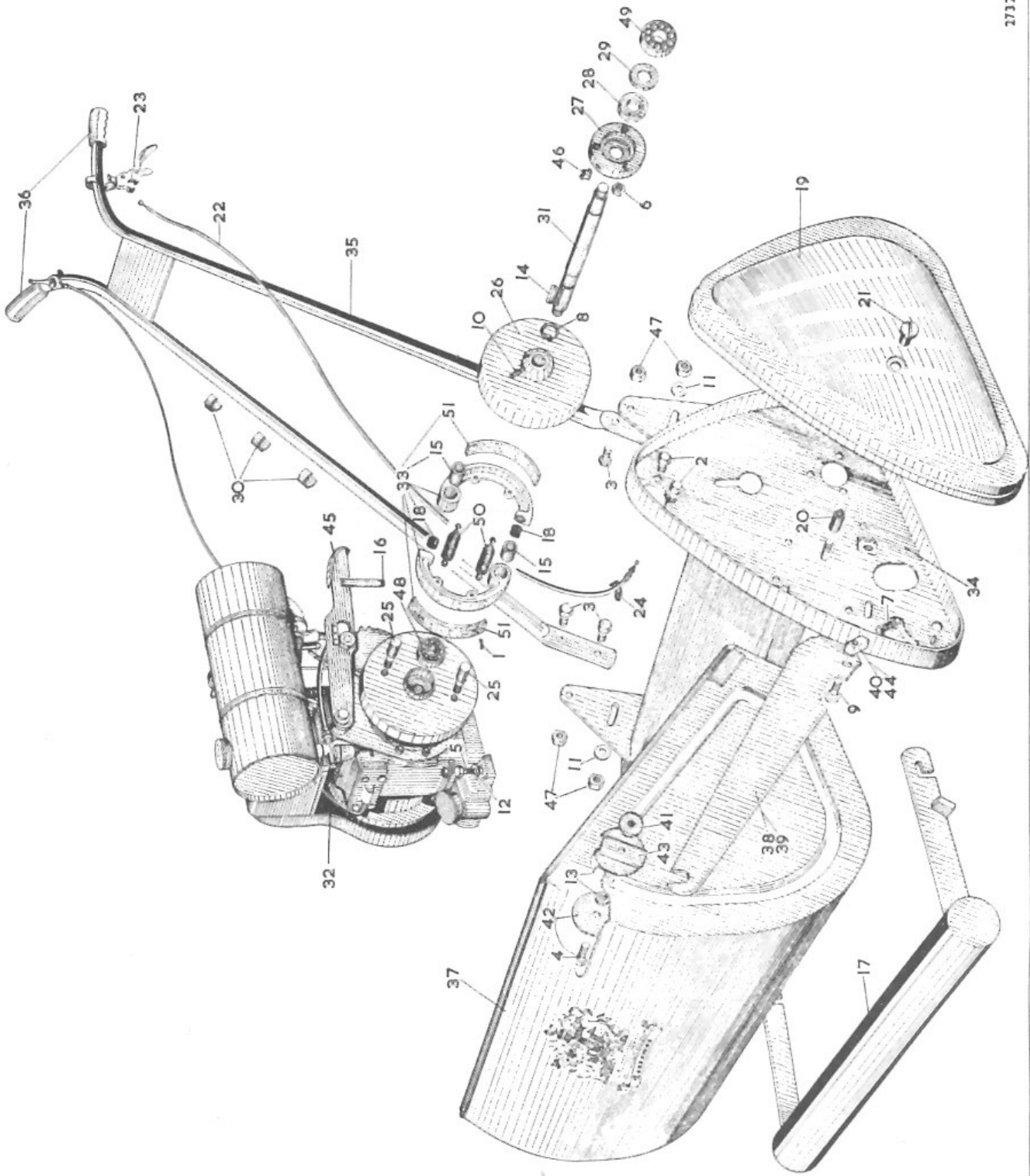


Fig. 6

MAIN FRAME, HANDLES, PRIMARY DRIVE, AND GRASSBOX Section 1

| Fig No. | Part No. | Description |
|---------|--------------|---|
| 1 | GSF 3354 CE | Rivet—clutch lining |
| 2 | GSF 2002 CC | Bolt—clutch shaft bearing housing (GSF 2051 AB) |
| 3 | GSF 2002 CF | Bolt—handles (GSF 2059 AB) |
| 4 | GSF 2002 EF | Bolt—grassbox pivot |
| 5 | GSF 2001 EF | Bolt—engine mounting |
| 6 | GSF 2051 AB | Nut—bearing housing |
| 7 | GSF 2002 CD | Screw—grassbox arm and chassis (GSF 2164 H) |
| 8 | GSF 1056 AX | Circlip—clutch shaft |
| 9 | GSF 2018 ACF | Screw—grassbox arm and boss (GSF 2164 H, GSF 2051 AB) |
| 10 | GSF 2020 JE | Setscrew—clutch ring |
| 11 | GSF 2150 D | Washer—handle bolt |
| 12 | GSF 2150 E | Washer—engine bolt |
| 13 | GSF 2152 C | Washer—grassbox pivot bolt |
| 14 | GSF 2202 EX | Key—clutch ring |
| 15 | GSF 3002 DR | Bush—clutch shoe |
| 16 | LAJ 0038 | Buffer—kickstart lever |
| 17 | LASY 797 | Balance bar |
| 18 | LAJ 0038 | Buffer—clutch shoes |
| 19 | LCO 0030 | Chain cover |
| 20 | LCO 0031 | Distance tube |
| 21 | LCO 0033 | Nut—chain cover |
| 22 | LCO 0227 | Cable—landroll clutch |
| 23 | H 980152 | Control lever—landroll clutch |
| 24 | LCO 0229 | Clip—clutch cable |
| 25 | MBA 2615 | Stud—clutch shoe (GSF 2164 L, GSF 2052 AB) |
| 26 | LMSD 271 | Clutch ring |
| 27 | LCO 0464 A | Bearing housing—clutch shaft |
| 28 | GSF 3571 GT | Felt washer |
| 29 | LCO 0468 | Dust washer |
| 30 | LCO 0542 | Cable clip |
| 31 | LMSD 274 | Clutch shaft |
| 32 | H 100004 | Engine—complete |
| 33 | LMSY 271 | Clutch shoes—complete |
| 34 | LMSB 766 | Main frame assembly |
| 35 | LMSC 141 | Handle assembly |
| 36 | H 990002 | Handle grip |
| 37 | LMAY 636 | Grassbox* |
| 38 | MBA 2393 | Side arm R.H.—grassbox |
| 39 | MBA 2394 | Side arm L.H.—grassbox |
| 40 | MBA 2395 | Boss—side arm R.H. |
| 41 | MBA 2396 | Pivot boss—grassbox |
| 42 | MBA 2397 | Pivot pad—inner |
| 43 | MBA 2398 | Pivot pad—outer |
| 44 | MBA 2399 | Boss—side arm L.H. |
| 45 | H 101409 | Kickstart lever and stop |
| 46 | H 210002 | Lubricator |
| 47 | GSF 2059 CB | Self locknut—handle bolt |
| 48 | H 001102 | Ball bearing—clutch shaft, flywheel end |
| 49 | H 001103 | Ball bearing—clutch shaft, drive end |
| 50 | LSD 4904 A | Spring—clutch shoe |
| 51 | LSD 4982 | Lining—clutch shoe |
| 52 | MBA 5041 | Guard—Flywheel |
| 53 | MBA 4275 | Guard—Clutch shaft |
| 54 | GSF 1094 HC | Screw for ditto |

*Includes items 4, 13, 41, 42, 43

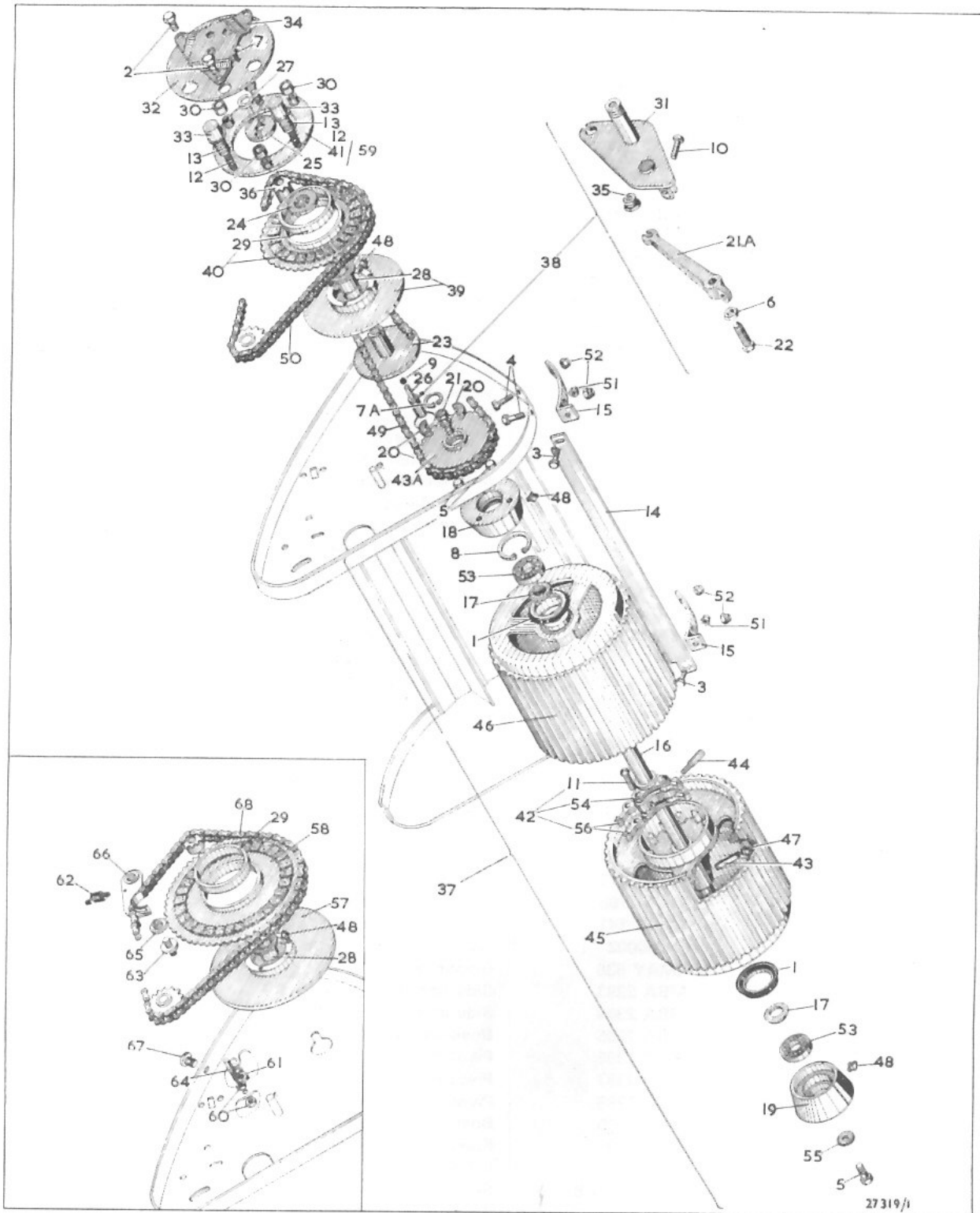


Fig. 7

LAND ROLLS AND TRANSMISSION Section 2

| Fig No. | Part No. | Description | Fig No. | Part No. | Description |
|---------|-------------|--|---------|-------------|--|
| 1 | H 013331 | Oil seal—landroll housing | 57 | LMAY 510 | Inner plate and sprocket (Mk. 2A) |
| 2 | GSF 2002 AB | Bolt—operating plate | 58 | LMAY 511 | Chainwheel assembly (Mk. 2A) |
| 3 | GSF 2002 AD | Bolt—landroll scraper (GSF 2059 AD) | 59 | LMAY 512 | Clutch plate assembly (Mk. 2A) |
| 4 | GSF 2002 CD | Bolt—scraper bracket (GSF 2059 CB) | 60 | GSF 2051 AA | Nut—Tensioner stop (Mk. 2A) |
| 5 | GSF 2002 ED | Bolt—bearing housing and landroll spindle | 61 | GSF 2051 AC | Nut—Tensioner pivot (Mk. 2A) |
| 6 | GSF 2052 AB | Locknut—clutch adjusting screw | 62 | GSF 2246 AV | Spring—Chain tensioner (Mk. 2A) |
| 7 | GSF 2002 AD | Screw—spring plate | 63 | MBA 3663 | Pivot (Mk. 2A) |
| 7A | GSF 1055 AY | Circlip—landroll chainwheel | 64 | MBA 3664 | Stop—chain tensioner (Mk. 2A) |
| 8 | GSF 1055 BT | Circlip—bearing housing—L.H. | 65 | MBA 3665 | Pivot boss (Mk. 2A) |
| 9 | GSF 1200 AH | Steel ball | 66 | LMSD 420 | Chain tensioner (Mk. 2A) |
| 10 | GSF 2180 KM | Rivet—operating lever | 67 | MBA 3668 | Spring Anchor (Mk. 2A) |
| 11 | GSF 2180 PC | Rivet—Pawls | 68 | H 041164 | Driving chain—Cutting cylinder (Mk. 2A) |
| 12 | GSF 2240 DF | Spring—inner clutch | 69 | GSF 2164 J | Washer for 61 |
| 13 | GSF 2240 PF | Spring—outer clutch | 70 | GSF 2164 G | Washer for 2 |
| 14 | LCO 0040 | Scraper—landroll | | | |
| 15 | LCO 0041 | Bracket—scraper | | | |
| 16 | LMSD 264 | Spindle—landroll | | | |
| 17 | LCO 0145 | Thrust washer | | | |
| 18 | LMSD 265 | Bearing housing—L.H. | | | |
| 19 | LMSD 266 | Bearing housing—R.H. | | | |
| 20 | LCO 0170 | Split washer—landroll chainwheel | | | |
| 21 | LCO 0171 | Operating lever | | | |
| 21A | LCO 0188 | Bolt—landroll chainwheel | | | |
| 22 | LCO 0191 | Adjusting screw | | | |
| 23 | LCO 0192 | Clutch bearing | | | |
| 24 | LCO 0193 | Lockwasher | | | |
| 25 | LCO 0194 | Special nut | | | |
| 26 | LCO 0195 | Operating pin | | | |
| 27 | LCO 0196 | Flanged pin | | | |
| 28 | LCO 0200 | Bush—inner clutch plate | | | |
| 29 | LCO 0206 | Bush—clutch chainwheel | | | |
| 30 | LCO 0211 | Sleeve—clutch plate | | | |
| 31 | LCO 0212 | Back plate | | | |
| 32 | LCO 0214 | Spring plate | | | |
| 33 | LCO 0215 | Spring box | | | |
| 34 | LCO 0222 | Operating plate | | | |
| 35 | LCO 0225 | Ferrule—clutch cable | | | |
| 36 | LCO 0466 | Pinion—primary drive | | | |
| 37 | LMAY 349 D | Landroll assembly—complete with housing | | | |
| 38 | LMAY 369 | Operating lever assembly | | | |
| 39 | LMAY 370 | Inner plate and sprocket (Mk. 2) | | | |
| 40 | LMAY 371 | Clutch chainwheel assembly(Mk. 2) | | | |
| 41 | LMAY 372 | Clutch plate assembly (Mk. 2) | | | |
| 42 | LMSY 448 | Pawl box assembly | | | |
| 43 | LMSY 758 | Oil tube, with lubricator | | | |
| 44 | LMSC 570 | Landroll chainwheel | | | |
| 44 | H 084001 | Cotter pin, nut and washer | | | |
| 45 | LMSC 026 Z | Landroll (male) R.H. | | | |
| 46 | LMSC 027 Z | Landroll (female) L.H. | | | |
| 47 | GSF 2541 AB | Lubricator—landroll | | | |
| 48 | H 210002 | Lubricator—bearing housing | | | |
| 49 | H 041158 | Driving chain—landroll | | | |
| 50 | H 041163 | Driving chain—cutting cylinder(Mk. 2) | | | |
| 51 | GSF 2059 AA | Self locknut—Scraper bolt | | | |
| 52 | GSF 2059 CB | Self locknut—Scraper bracket bolt | | | |
| 53 | H 001104 | Ball bearing | | | |
| 55 | LSD 4394 | Retaining washer | | | |
| 56 | LTC 0417 | Pawl | | | |

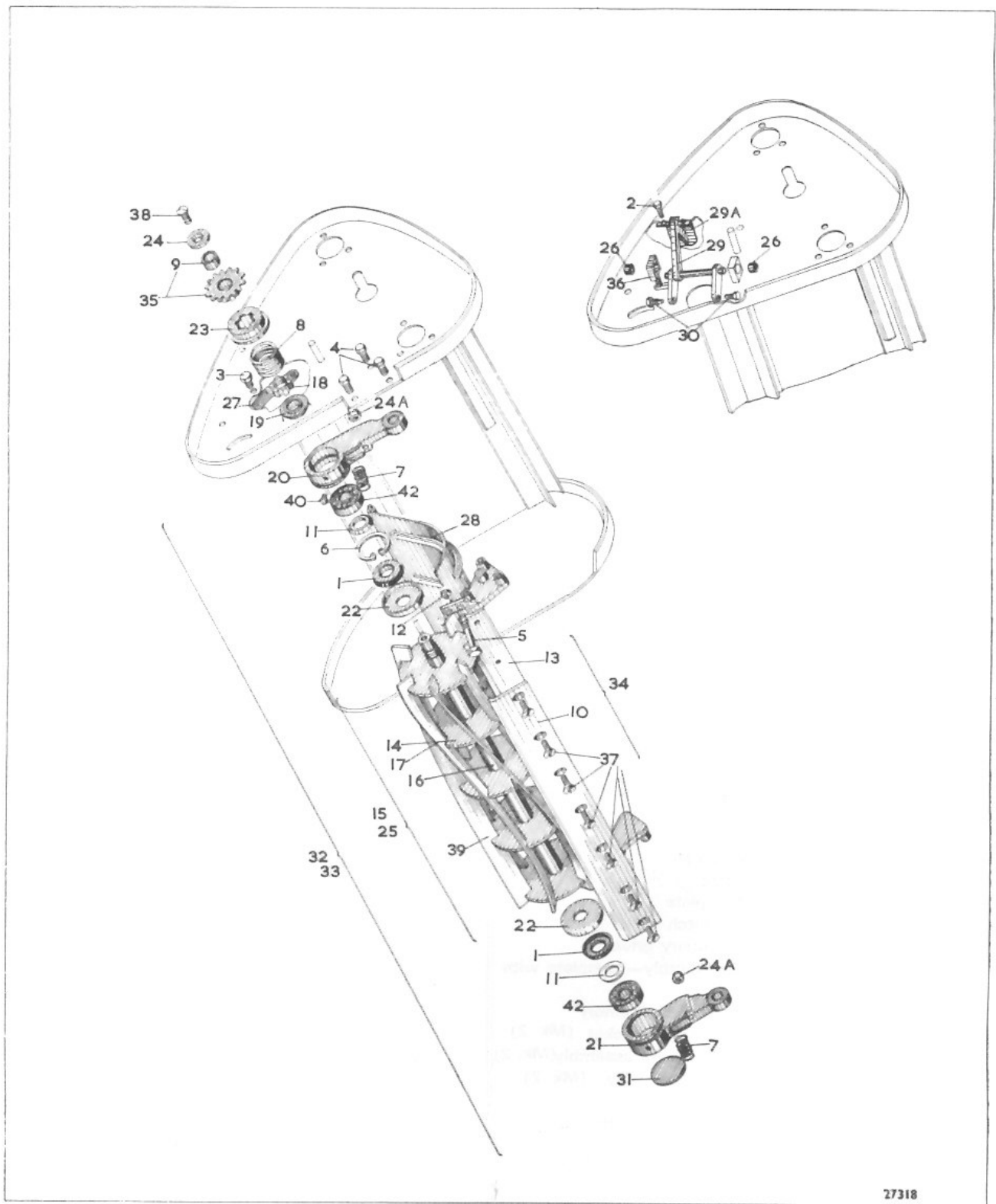
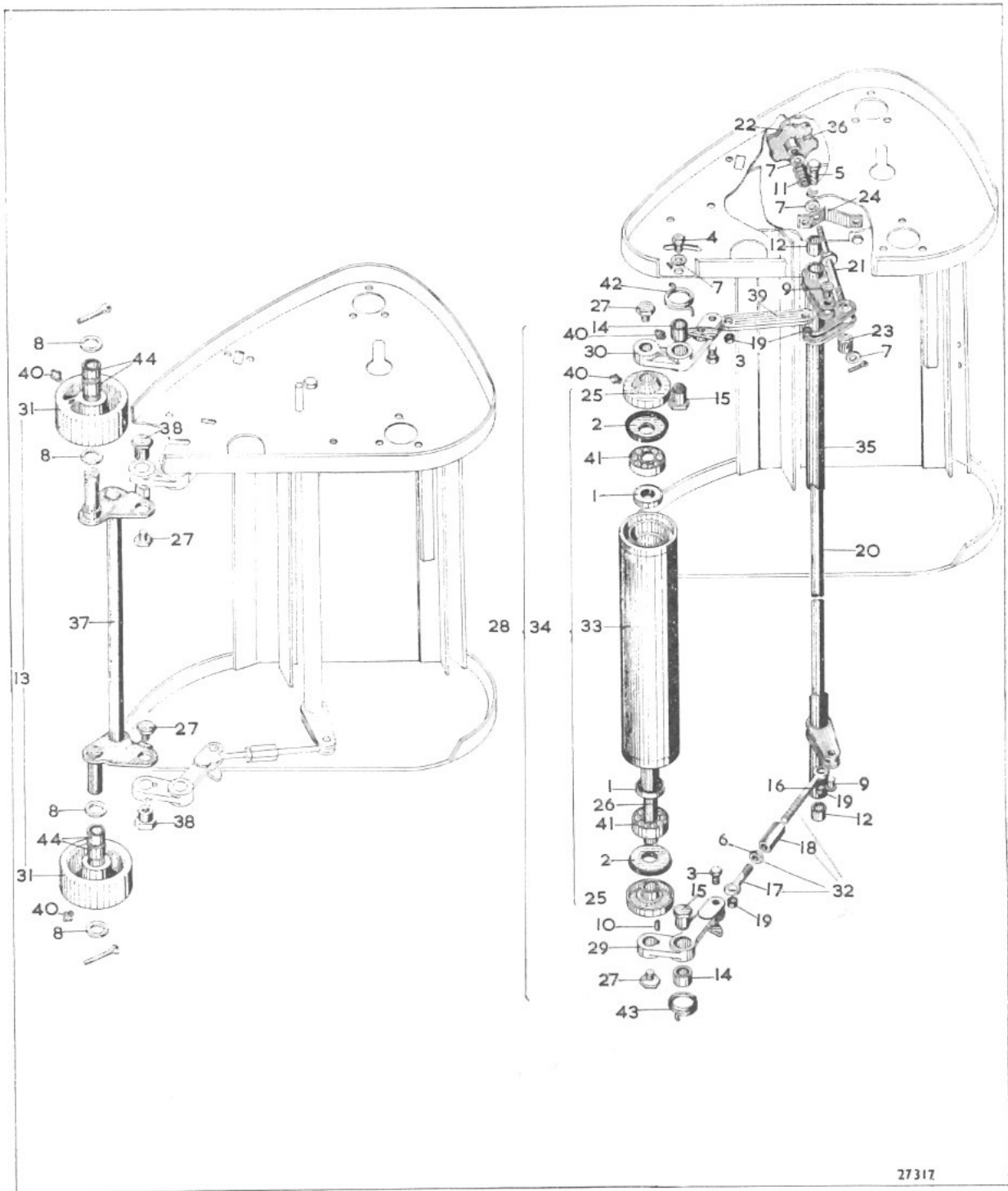


Fig. 8

| Fig No. | Part No. | Description |
|---------|-------------|---|
| 1 | H 013316 | Oil seals—bearing housing |
| 2 | GSF 2002 AC | Bolt—Clutch gate (GSF 2059AA) |
| 3 | GSF 2002 CC | Bolt—concave clip (GSF 2051 AB) |
| 4 | GSF 2002 EC | Bolt—bottom block |
| 5 | GSF 2001 EX | Adjusting bolt—cutting cylinder (LCO 0289) |
| 6 | GSF 1055 BT | Circlip—L.H. cylinder bearing |
| 7 | GSF 2240 PR | Spring—cylinder adjusting |
| 8 | GSF 2241 FA | Spring—clutch |
| 9 | GSF 3002 LE | Bush—cylinder pinion |
| 10 | MBA 7049 | Bottom blade |
| 11 | LCO 0145 | Thrust washer |
| 12 | LCO 0254 | Spring peg—bottom block |
| 13 | LMSC 739 | Bottom block |
| 14 | LCO 0265 | Cylinder collar—7-knife |
| 15 | LCO 0267 | 7-knife cutting cylinder |
| 16 | LCO 0268 | Cylinder spindle |
| 17 | LCO 0271 | Cylinder collar—5-knife |
| 18 | LCO 0272 | Splined collar—cylinder clutch |
| 19 | LCO 0278 | Shouldered washer |
| 20 | LMSD 485 | Bearing housing—cylinder L.H. |
| 21 | LMSD 486 | Bearing housing—cylinder R.H. |
| 22 | LCO 0283 | Dust cover—bearing |
| 23 | LCO 0284 | Sliding clutch |
| 24 | LCO 0285 | Retaining washer—cylinder pinion |
| 24A | LCO 0289 | Nut—adusting screw |
| 25 | LCO 0300 | 5-knife cutting cylinder |
| 26 | H 004005 | Bush—clutch lever bearings |
| 27 | LCO 0328 | Clip—concave |
| 28 | LCO 0329 | Concave |
| 29 | LCO 0370 | Cylinder—clutch lever |
| 29A | LCO 0377 | Gate—operating lever |
| 30 | LCO 0374 | Bolt—clutch lever fork |
| 31 | LCN 0389 | Sealing disc—R.H. bearing housing |
| 32 | LMAY 351 D | 5-knife cutting unit complete |
| 33 | LMAY 351 E | 7-knife cutting unit complete |
| 34 | LMAY 355 C | Bottom block and blade assembly |
| 35 | LMAY 381 | Cylinder pinion and bush |
| 36 | LMSC 659 | Bearing housing front—clutch lever |
| 37 | LS 02521 E | Countersunk screw—bottom blade |
| 38 | LS 02521 F | Countersunk screw—cylinder pinion |
| 39 | MBA 7156 | Spiral cutter |
| 40 | H 210002 | Lubricator |
| 41 | GSF 2059 AA | Self locknut—clutch gate bolt |
| 42 | H 001104 | Ball bearing |



27317

Fig. 9

FRONT ROLLS AND SIDE ROLLS Section 4

| Fig No. | Part No. | Description |
|---------|-------------|---|
| 1 | H 011090 | Oil seal—internal type |
| 2 | H 013316 | Oil seal—external type |
| 3 | MBA 2611 | Bolt—carriages and links |
| 4 | GSF 2002 EC | Bolt—pivot pins |
| 5 | GSF 2002 ED | Bolt—crossbar |
| 6 | GSF 2051 AC | Nut—adjusting link |
| 7 | GSF 2150 E | Washer—pivot bolt and adjusting screw |
| 8 | GSF 2150 K | Washer—side roll |
| 9 | GSF 2184 NK | Rivet—carriage links |
| 10 | GSF 2201 CA | Key—R.H. carriage |
| 11 | GSF 2240 NH | Spring—adjusting screw |
| 12 | GSF 3002 FR | Bush—cross tube |
| 13 | LASY 206 B | Side roll assembly—complete |
| 14 | LCO 0068 | Bush—carriages |
| 15 | LCO 0069 | Pivot pin—carriages |
| 16 | LCO 0076 | Adjusting rod—long |
| 17 | LCO 0077 | Adjusting rod—short |
| 18 | LCO 0078 | Adjusting nut |
| 19 | LCO 0081 | Bush—link and adjusting rods |
| 20 | LCO 0084 | Crossbar |
| 21 | LCO 0097 | Adjusting screw |
| 22 | LCO 0100 | Handwheel |
| 23 | LCO 0105 | Swivel nut |
| 24 | LCO 0106 | Bridge plate |
| 25 | LMSD 258 | End cover—front roll |
| 26 | LCO 0119 | Front roll spindle |
| 27 | LCO 0124 | Securing bolt—front roll spindle |
| 28 | LMAY 359 B | Front roll and carriage assembly —complete |
| 29 | LMAY 373 | Front carriage—R.H. |
| 30 | LMAY 374 | Front carriage—L.H. |
| 31 | LMAY 415 | Side roll with bushes |
| 32 | LMSC 797 | Carriage link rod assembly |
| 33 | LMSC 799 | Front roll tube |
| 34 | LMSC 802 | Front roll with bearings |
| 35 | LMSC 808 | Carriage adjusting tube |
| 36 | GSF 2101 BF | Grub screw—adjusting handle |
| 37 | MBA 2541 | Side roll frame |
| 38 | MBA 2547 | Locating boss |
| 39 | MBA 2603 | Link—L.H. |
| 40 | H 210002 | Lubricator |
| 41 | H 001543 | Bearing—front roll |
| 42 | LSD 4758 | Adjusting spring—L.H. |
| 43 | LSD 4759 | Adjusting spring—R.H. |
| 44 | GSF 3002 MR | Bush—side rolls |