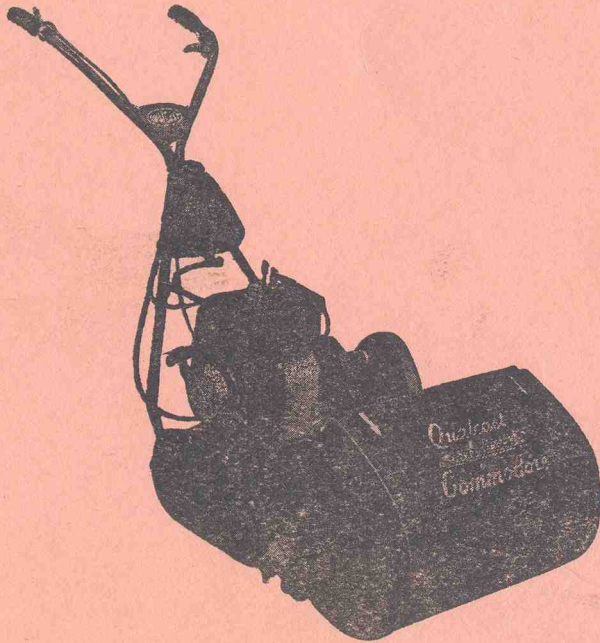




**OPERATING MANUAL**  
and  
**SPARE PARTS LIST**  
for the  
**QUALCAST**  
Commodore  
14" Motor Mower



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**QUALCAST LIMITED**

SUNNYHILL AVENUE, DERBY, ENGLAND

Cables: QUALCAST DERBY Phone: DERBY 21201 (10 lines)

## Instructions for Ordering Spare Parts

It is essential to quote the following :—

- (a) The Model Name of the Machine.
- (b) The chassis serial number stamped on the engine plate. (*See mower assembly illustration*).
- (c) The engine serial number. (*See engine assembly illustration*).
- (d) The PART No. of the part, NOT the illustration No.



**Operating Manual & Spare Parts List**  
**for the**  
**QUALCAST**  
**Commodore**  
**14" Motor Mower**

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# Instructions for using Qualcast 14" Commodore Motor Mower

## I. GENERAL ADVICE

The Qualcast 14-in. **COMMODORE MOTOR MOWER** is especially designed for fine cutting, and one of its outstanding features is the Dual Drive. (See paragraph V 7. (b)) The machine is easily transformed whilst in motion from a fully propelled mower into a cylinder drive only, simply by lifting and holding the clutch control lever on left hand handle arm. This latter arrangement is especially useful when cutting in awkward and confined spaces such as borders, round shrubs and flower beds where it is usually impossible to mow with a less modern type of machine, and also enables user to turn machine round with ease when approaching ends of lawn.

The mower and grassbox should be carefully examined to see if it has been damaged in transit. If so, inform the carrier and the consignor immediately.

Flush out petrol tank with a small quantity of petrol before filling for the first time.

The petrol tank should never be filled while the engine is running. Petrol spilling on a hot engine can be dangerous.

**DO NOT MIX OIL WITH PETROL.** The engine is a 4-stroke type and is designed with separate oil lubrication. It is wise to filter your petrol through a fine wire gauze when filling the tank.

Before starting, always check that there is petrol in the tank and sufficient oil in the crank case. Top up if necessary. Oil and grease working parts regularly.

Do not race the engine. A speed of 3 miles per hour is recommended. At this speed the machine can mow a tennis court in less than 15 minutes.

After use, always wipe blades with oily rag.

Do not start the engine in your shed or garage unless the doors are open. Exhaust gases are poisonous.

Ensure that the engine clutch lever is in the neutral position before pushing the mower over stony ground or gravel paths.



Before commencing to mow, ensure that the lawn is free from stones, bones or other hard substances.

**DO NOT AT ANY TIME REVOLVE THE CUTTING CYLINDER BY HAND WITHOUT ENSURING THAT THE ENGINE IS STOPPED.**

Check all chassis and engine nuts for tightness after the first two and ten hours' running and subsequently after every three months' use.

If your mower is going to be stored for any length of time, drain the engine completely of fuel to prevent gum deposit forming on essential parts. Remove sparking plug, pour a teaspoonful of engine oil into the cylinder, and turn the engine round slowly by hand to spread the oil. Replace the sparking plug.

At the end of the mowing season, clean the machine of all grass cuttings and dirt, also wipe the blades with an oily rag to prevent rusting.

## **II. METHOD OF ASSEMBLING TWO PART HANDLE ARM AND PETROL TANK**

The handle arm is packed in the carton with the machine and is made in two parts consisting of the bottom fork and the top half. Two cables and their control levers are already attached to the top half for easy assembly by the user. The carburetter cable and lever will need connecting to the handle and the engine clutch cable to the chassis in accordance with instructions given below.

The correct procedure for assembling the handle arm is as follows:—(see illustration Page 5).

1. Remove machine from carton, taking care not to damage cables. Place top half on ground behind machine. The dual drive cable will be attached to the chassis, so ensure that it is not twisted and that it lies in a straight line between handle and machine.
2. The bottom fork is assembled to machine on pivot lugs "A" after removal of nuts and bolts No. 104 from sideplates. (The cables must be inside fork for correct assembly.) The bolts are then replaced and left slack in order that the final adjustment for height of handle can be made prior to tightening.
3. Pick up top half of handle and secure to the bottom fork with four bolts. These are left slack to secure the petrol tank to the bottom half of the handle in the manner shown in the illustration (Inset 2).



#### **4. Assembly of engine clutch cable.**

- (a) Keeping cable on inside of handle arm and with clutch control lever, No. 75, in the "in gear" position, locate inner cable nipple in slot provided on left hand sideplate. (See illustration Inset 1).
- (b) Depress cone clutch lever No. 21 towards sideplate with left hand and insert loose sleeve on end of outer cable in slot provided on cone clutch lever. The rubber washer, No. 106, which is situated between sleeve and nipple mentioned above, is placed over the portion of the loose sleeve projecting from the cone lever and retains cable in position when the clutch is operated.

#### **5. Assembly of carburettor cable.**

- (a) Attach control lever No. 153 to handle in the position shown in illustration by threading underneath joint of handle arms and then attaching cable by the rubber clips provided.
  - (b) The carburettor is adjusted at the Works and no immediate adjustment should be necessary.
6. When the cables are being assembled ensure that they are hanging in free loops; the illustration shows clearly the position where they should be attached with the rubber clips. All curves in cables must be as large as possible to prevent any undue strain and wear during operation.
7. Attach petrol pipe to the Carburettor. Once the above has been carried out satisfactorily, height of handle can be adjusted to suit user and nuts and bolts No. 104 fully tightened.

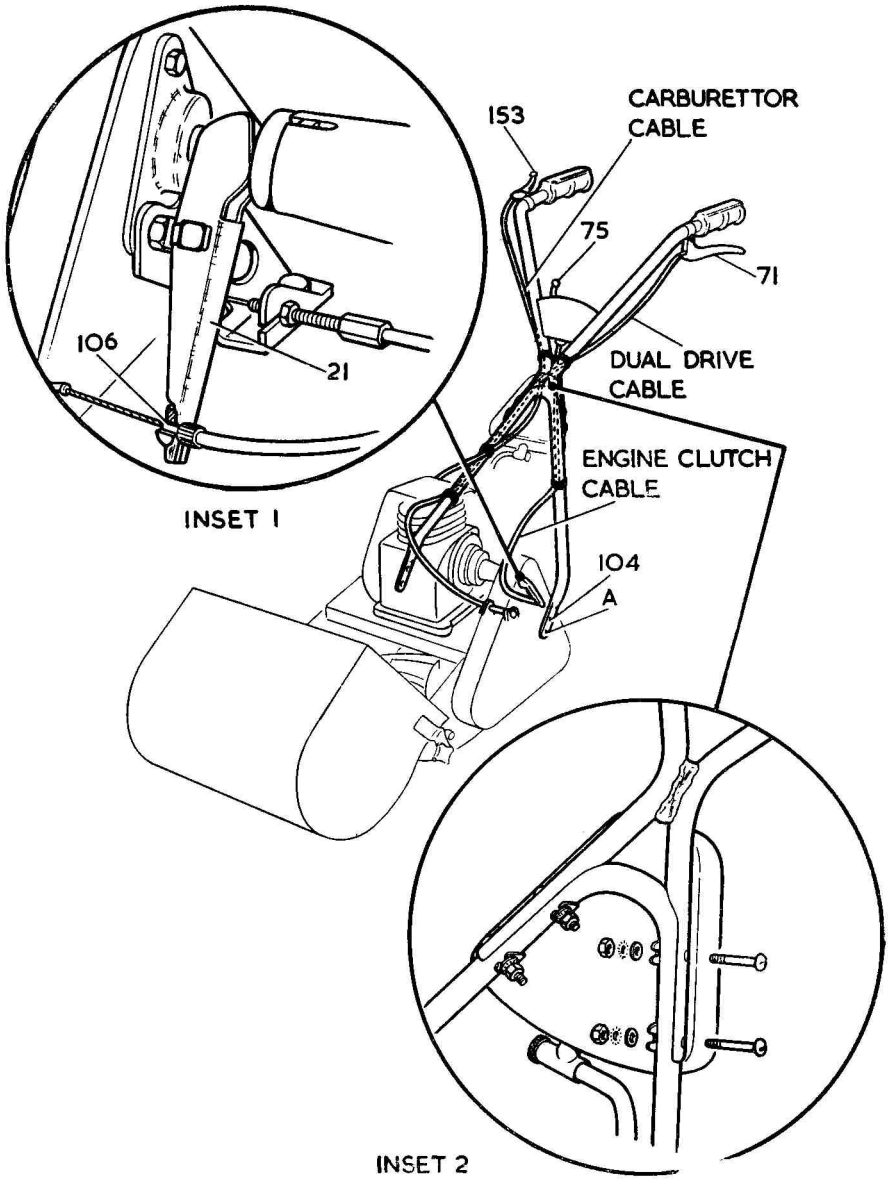
### **III. PRELIMINARY MOWER ADJUSTMENTS.**

#### **1. Height of Cut.**

To adjust machine to required height of cut, loosen the hand wheels securing front roller carriers, move carriers up or down until the desired height is obtained and re-tighten hand wheels. Notches are provided on sideplates and roller carriers to facilitate setting machine for height of cut.

#### **2. Cables.**

The cables are correctly set at the Works and should not require any immediate adjustment, but adequate cable adjusters are provided for this purpose. (See illustration on Page 5).







#### IV. DESCRIPTION OF ENGINE.

Engine.	Petrol, four stroke, single cylinder, air cooled.
Cylinder Dimensions.	Bore, 50.8 millimetres. Stroke, 38.1 millimetres. Cubic Capacity, 75 c.c.
Max H.P.	1.0 at 3,000 revolutions per minute.
Valves.	Mushroom. Side valve.
Valve Clearances.	Exhaust .015. Inlet .007. Inlet valve opens 2 degrees after Top Dead Centre. With above valve clearances the correct opening and closing of the valves will follow.
Camshaft.	One piece helical gear driven.
Piston.	Material, low expansion aluminium alloy. 1 Compression Ring, 1 Scraper Ring, 1 Oil Control Ring. Gudgeon Pin fixing by 2 circlips.
Connecting Rod.	Material Aluminium alloy. Big end bearing, plain and direct on crankshaft.
Crankshaft.	Material, Steel Forging. Dia. of take off—.75 in.
Main Bearings.	Steel backed white metal lined.
Ignition.	MAGNETO, FLYWHEEL TYPE. TIMING, 22—24 degrees before top dead centre. DRIVE direct main shaft. SPARKING PLUG, size 14 m.m. $\frac{3}{8}$ in. reach LODGE C.A.N. or equivalent. Three eighths inch reach.
Carburetter.	Zenith 13TCA.
Lubrication System.	Special 'Oil-mist' method.
Fuel Consumption.	.8 pints per H.P. hour.
Rotation.	Clockwise, looking at recoil starter.

#### V. OPERATION INSTRUCTIONS.

##### 1. PREPARATION FOR USE.

(a) Fill the petrol tank with commercial petrol. **DO NOT MIX ANY OIL WITH THE PETROL.**

(b) Unscrew the filler plug from the front of the engine and fill with  $\frac{1}{2}$  pint of any one of the following recommended oils or equivalents. When filling, turn engine slowly by hand to expel any air trapped in the sump. After filling replace plug.

Do NOT use a new engine without first filling sump with oil.





## RECOMMENDED LUBRICATING OILS

Ambient Temp.	Shell	B.P.	Castrol	Vacuum	Esso
Below 32° F	X-100 20/20 W	Energol SAE 20W	Castrolite	Mobiloil Arctic	Essolube 20
32°F—90° F	X-10 0 30	Energol SAE 30	Castrol XL	Mobiloil A	Essolube 30
Above 90° F	X-100 40	Energol SAE 40	Castrol XXL	Mobiloil AF	Essolube 40

**Note**—When starting the engine, the engine clutch lever must be in the neutral position.

### 2. TO START ENGINE WHEN COLD.

(a) Turn on Petrol.

(b) Close the air strangler by turning the small lever (1) at the side of the carburetter to the horizontal position as shown dotted in the illustration on Page 9.

(c) Open control lever about one third of its full opening.

(d) Press the tickler (2) on top of carburetter float chamber until the petrol just commences to overflow.

*See Illustration on Page 9.*

(e) To start the engine, grip the rubber handle firmly and pull smartly. Do not pull the rope out to its full extent, and do not release your grip on the handle until the rope has recoiled into position.

The Starter will automatically re-set itself for further use.

(f) After engine has started, gradually open strangler to position shown in the illustration on Page 9 as the engine warms up.

### 3. TO START ENGINE WHEN HOT.

The same procedure should be adopted except do not close strangler or flood the carburetter by pressing tickler.

### 4. SPEED REGULATION.

The speed of the engine is controlled by the lever at the end of the cable attached to the carburetter.

An automatic governor (3) is fitted which will maintain a constant speed whether the engine is running light or under load, accord-



ing to the setting of the control lever. Adjustment to this device should not be attempted unless absolutely necessary.

*See Illustration on Page 9.*

## 5. LUBRICATION.

Complete lubrication of all working parts of the engine including valves, etc., is automatically ensured by the special 'oil-mist' method, whereby it is unnecessary to add upper cylinder lubricant.

Always maintain oil in sump, at correct level as indicated on dip stick.

Do not remove the oil plug whilst the engine is running.

After ever 30 hours running and preferably when the engine is hot, drain the oil by unscrewing the drain plug in the sump at the base of the engine. Flush out with flushing oil (not paraffin). Make sure drain plug is replaced and tightened before refilling with fresh lubricating oil.

## 6. TO STOP ENGINE.

Turn off petrol. This will not stop engine at once since there will still be some petrol in the carburetter to be used before the engine finally receives no fuel. A little economy in petrol may be obtained by turning off the petrol a few minutes before requiring engine to stop.

To stop the engine quickly in the event of an emergency, press the Ignition Cut-out Switch on to the top of the Sparking Plug and keep pressed until the engine stops.

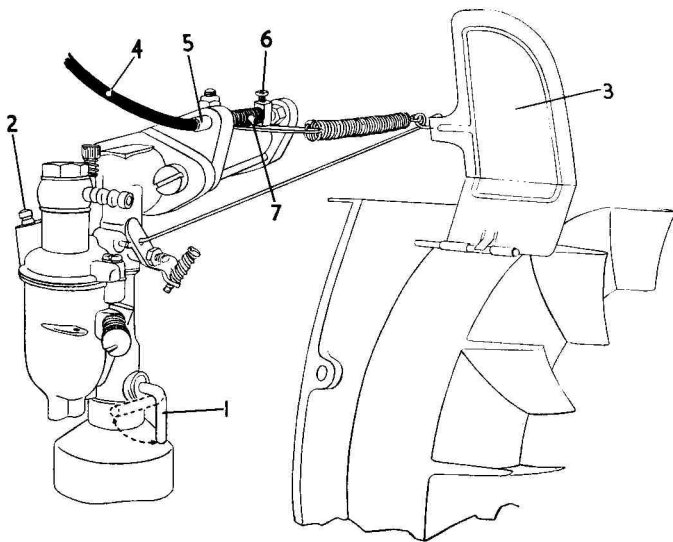
## 7. OPERATION OF MACHINE AND DUAL DRIVE

### (a) To operate machine as fully propelled mower

1. Lift and hold lever on left hand handle arm (this disengages drive to rear roller).
2. Now place the engine clutch lever into the "in gear" position (this engages the drive to the cutting cylinder).
3. Gradually release lever on left hand handle arm (the machine will then move forward with cutting cylinder revolving).

### (b) To operate in confined spaces using dual drive

1. With the engine clutch lever in the "in gear" position lift and hold lever on left hand handle arm. This disengages drive to back roller, allowing machine to be pushed forwards or backwards as required with cutting cylinder still revolving.



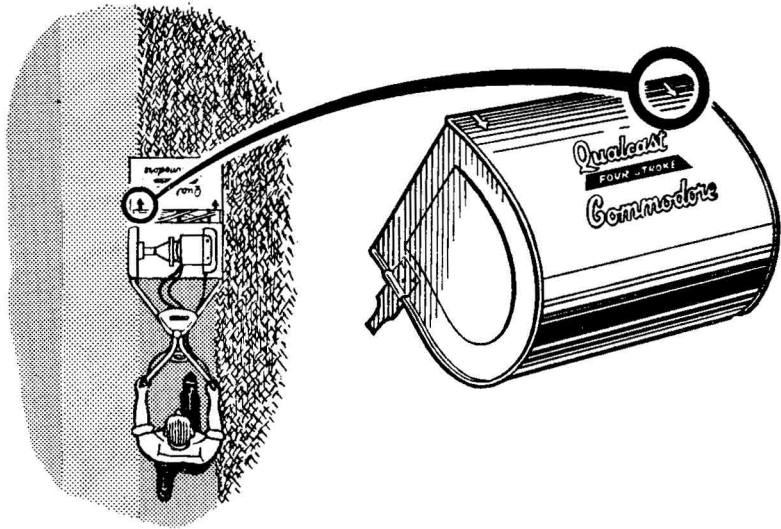


# Swathe Indicator

(PATENT APPLIED FOR)

These unique swathe indicators have been fitted to the grassbox of your Commodore to enable you to easily determine the width of the cutting cylinder in relation to the grassbox.

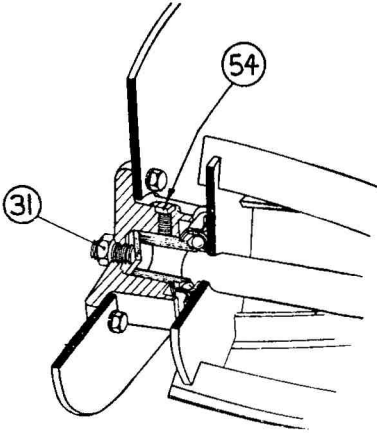
If the indicator is directed along the edge of previous swathe, you will obtain the maximum width of cut, ensure that no part of the lawn is missed and every swathe will be uniform.



## VI. ADJUSTMENT OF MOWER

Stop engine before making any adjustment.

### 1. CYLINDER BEARINGS. (See illustration below)



Any excessive play in the cylinder bearings should be taken up immediately. First take the bottom blade out of contact with cutting cylinder (see instruction Adjustment of Bottom Blade) and then slacken right hand cone locking screw about one half a turn only (No. 54) and release lock nut on cone adjusting screw (No. 31). Tighten up cone adjusting screw until play has been removed, but the cylinder still spins freely. Then re-tighten cone locking screw (No. 54) and locknut on cone adjusting screw (No. 31). Re-adjust bottom blade as instructed. The cutting cylinder can be taken out for regrinding

without dismantling the chassis. This is achieved in the following manner:—

- (a) Dismantle sprockets and chains, etc., from cylinder spindle.
- (b) Remove front stretcher
- (c) Unscrew the three bolts holding end plate and bearing housing to L.H. sideplate only.
- (d) Rotate the housing anti-clockwise until it is possible for it to be withdrawn through hole in sideplate.
- (e) The cutting cylinder can then be removed by lifting R.H. side from machine.
- (f) The cylinder is re-assembled in the reverse order.

### 2. ADJUSTMENT OF BOTTOM BLADE

(See Mower Assembly Illustration)

No attempt should be made to adjust the bottom blade until you are satisfied that there is no play in cylinder bearings. Every mower despatched from the factory is adjusted to cut paper 1-250th-inch



thick. If, however, the grass appears bruised, or not cleanly clipped, it is necessary to carefully re-set the bottom blade as follows:

- (a) Tilt the machine backwards with handle resting on the ground. Do not make this adjustment on lawn as petrol spillage may destroy the grass.
- (b) Loosen clamping nuts and bolts (No. 62).
- (c) Ensure that the bottom blade is in perfect alignment with cutting cylinder. If not, correct this by loosening nut (No. 11) and turning the eccentric bush (No. 68) in required direction to raise or lower bottom blade in relation to cutting cylinder. Retain bush (No. 68) in position with spanner provided when retightening nut (No. 11). The bottom blade must be taken out of contact with the cutting cylinder before attempting this adjustment.
- (d) Bring cutting edge of blade up closer to the cylinder by turning nuts (No. 52) in clockwise direction.
- (e) On no account should the bottom blade be allowed to press too heavily on the cylinder.
- (f) Retighten the clamping nuts and bolts (No. 62).

### **3. ADJUSTMENT OF MAIN DRIVE CHAIN**

Remove chain cover (No. 57) first. The main drive chain from the engine shaft to the cutting cylinder can be adjusted for tension by loosening nut (No. 133) and moving the nylon slipper assembly along the slot in the sideplate.

Ensure that eccentric cover is positioned to cover slot in sideplate to prevent entry of grass, dirt, etc.

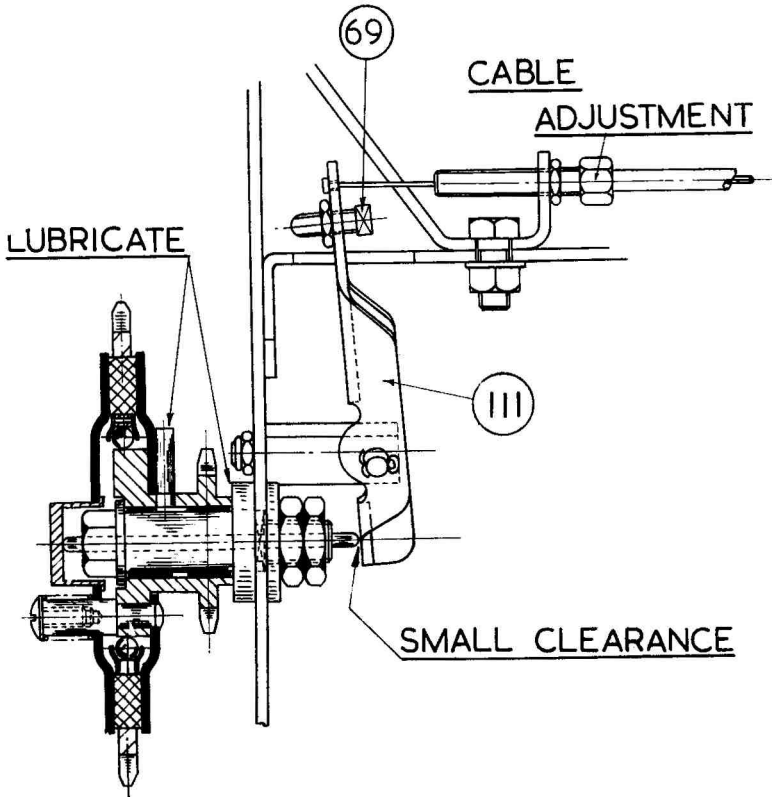
Should the chain adjuster at any time be removed from the machine, care should be taken when refitting to ensure that it is fitted outside the chain.

### **4. ADJUSTMENT CONTROL CABLES**

#### **(a) Engine Clutch**

This is operated by a cable extending from centre of handle arm to the end of the cone clutch lever (No. 21) which pivots on the left hand sideplate. The cable may require adjustment from time to time to take up any stretch. An adjuster is provided where the cable is attached to the handle arm bracket.

*Note:* When the cable is correctly adjusted, it should just be possible to rotate bearing (No. 24) when the clutch is in gear. This ensures that there is clearance between cone clutch lever (No. 21) and thrust bearing.



**(b) Dual drive or rear roller clutch.** (See illustration above)

The cable for this clutch extends from the hand grip on left hand handle arm to lever (No. 111) via sideplate support bracket on engine plate. A cable adjuster is fixed in this bracket to take up any stretch which may occur after use. When cable is correctly adjusted, the lever (No. 111) will be just clear of plate clutch operating rod. The movement of lever (No. 111) is restricted by the adjustable set screw (No. 69). This prevents undue strain being put on plate clutch.





## VII. LUBRICATION OF MOWER

(See Mower Assembly Illustration)

### 1. Cylinder bearings

The ball bearings on the cutting cylinder are sent out from the factory well lubricated. Fresh lubricant may be introduced to the bearing when required by means of two oil caps (No. 61).

### 2. Rear roller bearings

These are of the self-lubricating type, but it may be necessary after a time to oil same. A cover is provided to keep dirt from entering oil hole.

### 3. Front roller spindle

To ensure that the front rollers revolve easily on the spindle, it is recommended that the spindle is oiled frequently.

### 4. Engine clutch

This is of a cone drive type and an internal self-lubricating bearing is fitted adjacent to engine flywheel. Additional oil may be introduced to this bearing by means of the hole in cone (No. 34). Only **two or three** drops of oil are necessary. Excessive quantities will result in lubricant spreading to the driving faces and impairing the efficiency of the drive. **Thrust bearing (No. 24) also requires weekly lubrication.**

### 5. Clutch and Carburettor cables

These should be lubricated frequently by introducing oil inside the outer cable at each end.

Remove chain cover (No. 57) to lubricate the following:—

### 6. Chains

All chains should be kept well greased.

### 7. Plate clutch (Dual drive). (See illustration page 13)

The clutch fitted with self-lubricating bearing rotates on a spindle which is fixed to the sideplate. Fresh oil should be introduced to these bearings frequently by means of the oil channel which is attached to the clutch body between the two sprockets. It is also necessary to lubricate between clutch body and spindle flange adjacent to the sideplate.

### 8. Bearing-Drive sprocket

This ball bearing (No. 49) must be kept well lubricated, being checked at frequent intervals.



## VIII. ENGINE MAINTENANCE.

### 1. FAILURE TO START.

If after a reasonable number of trials the engine should not start, this may be due to one or more of several causes, such as:

(a) Lack of petrol through tap not being turned on or fuel supply choked, or failure to flood carburetter.

(b) Too much petrol through excessive flooding causing too rich a mixture and wet sparking plug. If so, remove and dry plug. Turn engine over smartly a few times by hand with control lever closed. This will expel excessive petrol vapour. Replace plug.

(c) Control lever open too wide. One quarter to one third is correct.

(d) Poor spark arising from dirty plug. Remove and clean plug and adjust points. Gap should be .020 in.—.022 in.

(e) No spark. Remove plug and hold plug body against some unpainted part of the engine with cable attached and turn engine over smartly. There should be a spark at the points of the plug. If not, clean and adjust gap between points. Also check that plug cable is in good condition.

(f) Lack of petrol can sometimes result from dirty filter at junction of petrol pipe and carburetter. Remove plug No. 1 (see illustration on Page 26) at top of float chamber, lift out filter gauze carefully and wash in petrol. Replace filter gauze and screw back union. Do not overtighten.

Make sure that fibre washers are replaced correctly.

If after all above items have been checked, the engine still will not start, the following examination will be required:

#### (g) Carburetter.

If it is suspected that foreign matter may have entered carburetter, remove screws from lid of float chamber and remove float. Then clean out out float chamber and needle seat.

For more detailed instructions, see section on Carburetter Maintenance.

#### (h) Magneto.

If after examining sparking plug and its cable, there is still no spark, remove the flywheel cover and check magneto.

See section on Magneto Service Instructions.

#### (j) Cylinder Compression.

Lack of compression may be caused by:

(i) Insufficient valve clearance. There should be a clearance of .015 in. between exhaust valve stem and tappet and .007 in. between inlet valve stem and tappet throughout the closed period of the valves respectively.

(ii) Valves sticking. Remove valve chest cover to see if valve stems are moving their full distance as engine is turned over.

If not, remove cylinder head, clean away any foreign matter under valve head, on valve stem and free the valve.

(iii) Joint between cylinder and head of cylinder not tight. This is not likely to occur unless the cylinder head has been removed and replaced incorrectly, or replaced with a faulty gasket.

## 2. MAGNETO DESCRIPTION.

The Flywheel Magneto produces a high spark output at low speeds for easy starting, and maintains a maximum spark output over a wide timing range.

It consists of two main parts: a FLYWHEEL and a STATOR PLATE. The Flywheel contains in its rim a permanent magnet of special alloy.

The Stator Plate contains the H.T. Coil mounted on a laminated core, the condenser and the breaker mechanism, all of which are easily accessible.



### 3. MAGNETO SERVICE INSTRUCTIONS.

Ignition is fixed. If the Magneto is removed for any reason, mark the relative position of engine and magneto in order that the timing should not be altered.

The magneto is timed to spark at 22—24 degrees before top dead centre.

If the engine fails to start, and there is indication that the magneto is at fault, the following procedure should be adopted.

(a) Disconnect the H.T. lead from the spark plug, and hold it about  $\frac{1}{8}$ " away from some unpainted portion of the engine. Turn the engine over smartly and a spark should jump this gap.

If no spark is visible, then

(b) Remove the magneto cowling complete with starter.

(c) Remove the flywheel. Remove the pawl hub (123) and spacer (120) Unscrew the hexagon nut (L.H. thread) at the end of the crankshaft. If the flywheel will not withdraw easily, grasp it firmly and while attempting to pull it off, tap the end of the crankshaft with a mallet. Be careful not to damage the thread. Make sure that there are no metallic particles inside the flywheel.

*See Engine Assembly Illustration*

(d) Check that the H.T. cable is not broken, disconnected from the coil, or damaged in any way. Also check other wiring.

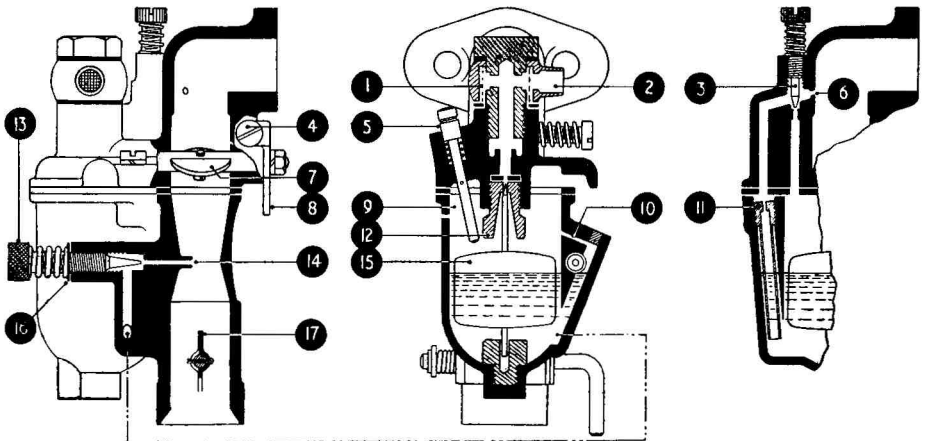
(e) Check that the contact breaker points are clean.

Turn the engine over until the points are fully open. Measure the opening with a feeler gauge. This opening should be .018"—.020". If the points need adjusting, loosen the large screw which locks the breaker plate and move the latter to give the correct opening by turning the small screw, which is eccentric. Then lock the large screw. Check the opening.

The breaker points setting should only be adjusted in the manner described; at no time should the fixed contact be loosened to provide adjustment.

If either the fixed or moving points at any time need replacement, it is recommended that both be replaced at the same time.

(f) A weak or faulty condenser can be detected by badly burnt or pitted points, or a continuous blue spark across the contacts when running. A small white spark is normal. The condenser can be removed by undoing the screws holding the clamp and disconnecting the leads from it.





#### **4. CARBURETTER DESCRIPTION.**

The 13TCA carburetter shown on page 16 has a high non-flooding angle in all directions, and consists of two principal castings. The upper portion or throttle body incorporates the right angle inlet bend and the fixing flange which is bolted directly on to the inlet port of cylinder; the lower portion consists of the float chamber (or bowl) and the air intake. The choke tube is cast integrally as part of the air intake.

##### **Fuel Supply and Metering System.**

Fuel entering the petrol elbow (2) is filtered by the gauze screen (1) and passes through needle seating (12) into the bowl (9). The combined float and needle (15) will rise and close the seating, cutting off further supplies of petrol when the correct level is reached in the bowl (it is not intended that this level should be altered). A tickler or flooder (5) is provided to enable the float to be depressed, and as a result the fuel level will be raised in order to assist starting when cold. A small overflow hole in the bowl above the normal fuel level prevents excessive flooding.

##### **High Speed Operation.**

Fuel metering at high engine speed is controlled by an adjustable main jet. The outlet of the main jet discharge tube (14) is placed at the restricted portion of the choke tube which forms part of the bowl. The main jet adjusting screw (13) has a tapered end which enters the tube (14), thus controlling the quantity of fuel passing into the choke tube. The volume of petrol air mixture passing into the engine is controlled by the butterfly throttle (7) which in turn is operated by the throttle lever (8). A small air-bleed hole (10) is provided in the main jet system; air from the bowl is used for this purpose.

##### **Idle Operation.**

The slow running channel carries petrol from the combined jet and dip tube (11) to the small idling hole (6) on the engine side of the throttle. Air for slow running is taken from inside the carburetter, and is controlled by the slow running jet adjusting screw (3). Turning this screw clockwise enriches the slow running mixture, and vice versa.

##### **Easy Starting.**

This is ensured by the air strangler or choke (17) and during very cold weather the tickler (5) can also be used. When the engine has been switched off a short period it is not usually necessary to use the choke when restarting; it may, however, be an advantage to use the tickler in order to ensure an immediate fire when the engine is turned over.

#### **5. CARBURETTER ADJUSTMENTS AND MAINTENANCE.**

##### **Adjusting Main Jet.** (See illustration Page 16).

The main jet adjustment (13) is set by the engine manufacturer and should not be altered without good reason. This adjustment is always somewhat sensitive on small engines, consequently it should not be altered more than one-eighth of a complete turn until the effect of any such adjustment has been carefully noted. (The shallow notch in the head is provided only to indicate the position of the screw). Always make this adjustment with the engine under load at normal full speed with the throttle wide open. It is not satisfactory to adjust the main jet when the engine is running light on the speed governor with the throttle nearly closed. Turning the screw (13) clockwise, will reduce the fuel flow and weaken the mixture supplied to the engine. Turning it anti-clockwise will increase the flow and provide a richer mixture. **DO NOT FORCE THE SCREW INTO ITS SEATING AS THIS WILL DAMAGE THE TAPER** thereby making correct adjustment extremely difficult. If the setting



is too weak it will result in lack of power and possibly overheating of the cylinder, together with poor pick up or cutting out when the load is applied. Do not attempt to operate on a very lean mixture, as better performance and fuel economy will be obtained if the mixture is set for full power. An excessively rich mixture will produce black smoke from the exhaust and may cause rapid carbon formation in the cylinder head and on the piston crown. Carbon will also quickly form on the sparking plug points, resulting in difficult starting. The washer (16) prevents fuel leaking from the head of the screw. The main jet screw (13) should be set at about  $1\frac{1}{8}$  complete turns in an anti-clockwise direction from the fully closed position.

#### **Adjusting Idle Speed.**

The throttle stop screw (4) should be turned clockwise to increase the idle speed. Conversely turning anti-clockwise will reduce the speed at which the engine runs with the throttle in the closed position. It is usual to set the idling speed at 1000-1100 r.p.m. Smooth idling is ensured by regulating the slow running jet adjusting screw (3). In case of difficulty in obtaining satisfactory idling, make quite sure the gasket between the bowl and the barrel is in good condition and that the attachment flange on the barrel portion is perfectly flat. A thin gasket should always be used at this flange joint. The slow running jet adjusting screw (3) should be set about  $\frac{3}{4}$  of a complete turn in anti-clockwise direction from the fully closed position.

#### **General.**

Flooding may be caused by excessive engine vibration, dirt in the needle seating, a bent float needle or possibly by the tickler (5) sticking down and depressing the float. Should the flooding continue after cleaning and checking the carburetter, the next step is to fit a new float and needle (15) and needle seating (12) as this part is subject to wear as a result of engine vibration. Periodically check and clean the filter gauze in the banjo fixing the petrol pipe to the carburetter. It is not intended that the petrol level should be altered.

#### **6. CONTROL CABLE ADJUSTMENT.**

The control lever is connected to the carburetter by the cable (4) which is located in the carburetter manifold by the ferrule (5). If after considerable use it is found that the cable has stretched, adjustment can be made by loosening the anchor screw (6) pulling the cable through the hole in the anchor and retightening the screw. This adjustment should be made with the control lever in the closed position and the throttle control spring (7) fully expanded. (See illustration Page 9).

**IMPORTANT.** In all cases of bad starting or unsatisfactory performance, first check the setting of the MAIN JET SCREW (13) and SLOW RUNNING JET ADJUSTING SCREW (3).

#### **7. RECOIL STARTER MAINTENANCE AND REPAIRS.**

(See Engine Assembly Illustration).

##### **(A) TO REPLACE NYLON ROPE.**

Remove the Cover Assembly from the mower. First remove Nuts (133) and Washers (5) from the three Fixing Bolts. The Cover Assembly can then be pulled away from the Flywheel Cowl (150) complete with Screen (138). Remove the Rubber Handle (134) and Washer (137) from the old rope. Remove the Centre Screw (124) and carefully lift the Pulley (128) from the Cover in such a way as to avoid disturbing or releasing the Recoil Spring. Remove the old rope from the Pulley.



To fit the New Rope, knot one end and thread the opposite end through the anchor hole between the Pulley faces. Replace the Pulley and tighten the Centre Screw, making sure that the Centre Bush (126) is located correctly. Wind the Rope round the Drum in an anti-clockwise direction. Before threading the Rope through the Rope Guide Bush, rotate the Rope and Pulley one complete turn in an anti-clockwise direction. This will ensure the correct tension on the Recoil Spring. Thread the Rope through the Rope Guide Bush (130) in the Cover (131) and then through the Rubber Handle. Replace Washer and tie a double knot.

**(B) TO REPLACE THE RECOIL SPRING.**

Remove the Pulley as described above. Spare Recoil Springs are supplied already coiled with a retaining clip. Assemble the Spring into the Cover making sure that the outer loop of the Spring is pushed on to the Anchor Peg in the Cover.

**WARNING:** Do not remove the retaining clip until the Spring is in position

**TO RE-ASSEMBLE THE PULLEY AND ROPE, FOLLOW PROCEDURE DESCRIBED ABOVE.**

**8. ENGINE DISMANTLING.**

- (a) Disconnect plug lead from sparking plug.
- (b) Remove sparking plug.
- (c) Disconnect petrol banjo from top of carburetter float chamber.
- (d) Remove cowl complete with starter.
- (e) Remove governor blade from spindle and disconnect from throttle link.
- (f) Remove carburetter assembly at joint between inlet manifold and cylinder block.
- (g) Remove magneto flywheel, woodruff key, contact breaker cam, and cam spring.
- (h) Remove cylinder head.
- (j) Remove magneto stator plate, drawing plug lead through rubber grommet in magneto backplate.
- (k) Remove engine sump.
- (l) Remove big end setscrews, locking strip, oil splasher, and big end bearing cap.
- (m) Remove piston and connecting rod complete by drawing upwards through cylinder.
- (n) Remove rings from piston, one circlip and gudgeon pin.
- (p) Remove magneto backplate.
- (q) Remove crankshaft.
- (r) Remove valve chest cover, breather retaining spring and crankcase breather.
- (s) Compress valve springs and remove cotter pins.
- (t) Remove camshaft by tapping out camshaft spindle TOWARDS magneto end of engine with a brass drift.
- (u) Remove tappets.

**TO RE-ASSEMBLE, REVERSE THE ABOVE PROCEDURE.**

IX. COMMODORE MOWER SPARE PARTS LIST

# MODEL "DRC"

<i>Part No.</i>	<i>Description</i>	<i>No. off</i>	<i>Ref. No.</i>
DRA.1B	Rear roller assembly ... ..	1	1
DRA.5	Sideplate assembly, R.H. ... ..	1	2
DRA.6A	Sideplate assembly, L.H. ... ..	1	3
DRA.9	Roller carrier, R.H. ... ..	1	4
DR.12	Bolt—Roller carrier ... ..	2	5
DR.13	Washer—Cone clutch control lever ... ..	1	6
M.13	Washer—Front roller ... ..	2	7
DRA.15	Soleplate assembly ... ..	1	8
DR.16	Round head screw—Chain case ... ..	3	9
N.16	Bottom blade screw ... ..	6	10
DR.17	Stretcher—Soleplate ... ..	1	11
DRA.18	Cylinder assembly ... ..	1	12
DR.24	Front stretcher ... ..	1	13
DR.25	Bearing housing, L.H. cylinder ... ..	1	14
DR.26	Bearing housing, R.H. cylinder ... ..	1	15
DR.28	Eccentric—Cone clutch ... ..	1	16
DR.32	Roller—Front ... ..	3	17
DR.33	Spindle—Front roller ... ..	1	18
L.34A	Spanner ... ..	1	19
DRA.35	Delivery plate assembly ... ..	1	20
DR.38	Cone clutch lever ... ..	1	21
DRA.39B	Grassbox assembly ... ..	1	22
S.40	Shakeproof washer ... ..	4	23
DR.46B	Thrust bearing—Cone clutch ... ..	1	24
DR.47	Distance piece ... ..	2	25
S.48	Handwheel—Roller carrier ... ..	2	26
DR.55	Bearing housing—Cone clutch ... ..	1	28
DRA.56	Roller carrier, L.H. ... ..	1	29
DR.58	Handle grip ... ..	2	30
CD.59	Screw—Cone adjusting ... ..	1	31
DR.60	Bearing bush—L.H. rear roller ... ..	1	32
DR.64	Pinnacle nuts ... ..	6	33
DR.66	Cone clutch—Male half ... ..	1	34
DR.67	Sprocket—Clutch driving, 10 teeth ... ..	1	35
DR.68	Chain, .500" pitch, 21" long ... ..	1	36
DR.69	Bottom blade ... ..	1	37
DR.70	Chain, .500" pitch, 19" long ... ..	1	38
DR.71	Sideplate support bracket ... ..	1	39
DR.74	Sprocket—Rear roller, 30 teeth ... ..	1	40
DR.76	Nut grip—Engine plate ... ..	2	41
DR.77	Washer ... ..	10	42
DR.78	Distance bush—Cone clutch shaft ... ..	1	43
DR.80	Distance bush—Cylinder spindle ... ..	1	44
DR.81	Rear stretcher ... ..	1	45
DR.88	Washer—Cone clutch ... ..	1	46
DR.90	Spanner ... ..	1	47
DR.92	Ball bearing—Cone clutch ... ..	1	49
L.92A	Ball race, Cylinder bearing ... ..	2	50
DR.94	Eye bolt—Soleplate adjusting ... ..	2	51
DR.96A	Nyloc nut ... ..	2	52
PM.97	Cable clip ... ..	5	53
CD.100	Screw—Cone locking ... ..	2	54
DR.101	Pivot pin—Clutch lever ... ..	2	55



<i>Part No.</i>	<i>Description</i>	<i>No. off</i>	<i>Ref. No.</i>
DR.104	Tab washer—Clutch lever pivots ... ..	1	56
DR.105	Chain case ... ..	1	57
DR.107	Cover—Cylinder spindle ... ..	1	58
DR.109A	Securing bolt—Cone clutch ... ..	4	59
DR.111	Spanner ... ..	1	60
PM.111	Oiler—Cylinder bearing ... ..	2	61
DR.114	Bolt and nut—Soleplate adjusting arm ... ..	2	62
DR.115	Pivot bracket—Plate clutch lever ... ..	1	63
L.118	Spring washer ... ..	17	64
N.118A	Spring washer ... ..	10	65
N.118B	Spring washer ... ..	2	66
CD.122A	Cone—Cylinder bearings ... ..	2	67
DR.123	Eccentric bush—Soleplate adjusting ... ..	1	68
DR.124	Adjusting screw—Plate clutch lever ... ..	1	69
PM.124	Set screw ... ..	11	70
DR.125A	Plate clutch control lever ... ..	1	71
DR.126A	Plate clutch control cable complete ... ..	1	72
DR.127	Cone clutch control cable complete ... ..	1	73
DR.128A	Shaft—Cone clutch ... ..	1	74
DR.131	Cone clutch control lever ... ..	1	75
DR.132	Spindle adaption washer ... ..	2	76
DR.138	Spring cover—Oil hole rear roller ... ..	2	77
DR.146	Sprocket—Cylinder, 29 tooth ... ..	1	78
DR.156	Washer—Rear roller ... ..	1	79
CD.156	Washer—Cone adjusting ... ..	1	80
DR.160	Bearing bush—Cone clutch ... ..	1	81
DRA.163	Oil seal assembly ... ..	2	82
DR.166A	Cone clutch—Female half ... ..	1	83
DR.174	Soleplate adjusting spring ... ..	2	84
DR.187	Hexagonal head bolt ... ..	7	85
SP.188	Washer ... ..	5	87
DR.190	Sprocket—Engine, 13 tooth ... ..	1	88
DR.217	Eccentric cover—Chain skate ... ..	1	89
DR.260	Bearing bush—Plate clutch ... ..	2	90
DR.298	Bolt and nut—Handle arm ... ..	4	91
DR.316B	Handle arm ... ..	1	92
DRA.341 A	Engine plate assembly ... ..	1	93
DR.345	Washer—Cylinder, rear roller... ..	2	94
DR.347	Spring—Cone clutch ... ..	1	95
PM.357	Cup—Cylinder bearing ... ..	2	96
P.360	Shakeproof washer ... ..	7	97
PM.360	Spring washer ... ..	3	98
DR.367A	Pivot bracket ... ..	1	99
DR.369	Split pin ... ..	4	100
SP.376	Washer ... ..	7	101
PM.386	Spring washer—Double coil ... ..	1	102
DR.396	Washer ... ..	3	103
PMJ.405	Bolt and nut ... ..	3	104
DR.415	Rubber grommet ... ..	1	106
DR.431	Nut—Rear stretcher—Soleplate stretcher ... ..	4	107
DR.435	Spring washer—Cone clutch ... ..	1	108
DR77	Washer for Handle Arm ... ..	2	109
DR.437	Washer—Front stretcher ... ..	4	110
DR.438A	Plate clutch lever ... ..	1	111
DR.441	Locking screw—Flywheel ... ..	2	112
DR.442	Washer—Engine ... ..	1	113
DR.443	Bolt—Engine plate ... ..	3	114
DR.444	Dished washer—Clutch ... ..	1	115
DR.460	Bearing bush, R.H., rear roller ... ..	1	116
DR.468	Chain, .375" pitch, 28½" long ... ..	1	117
DRA.474	Plate clutch assembly ... ..	1	—
DR.474/1	Spring ... ..	3	119

<i>Part No.</i>	<i>Description</i>	<i>No. off</i>	<i>Ref. No.</i>
DR.474/2	Spindle ... ..	1	120
DR.474/3	Screw—Spring securing ... ..	3	121
DR.474/4B	Push rod ... ..	1	122
DR.474/5	30 tooth sprocket, inc. friction pads and ball bearing	1	123
DR.474/6	Clamping washer ... ..	1	124
DR.433	Swathe indicator—Grassbox ... ..	2	125
DR.474/8	Thrust washer ... ..	1	126
DR.474/9	Body—Pressure plate ... ..	1	127
DR.474/10	Pressure plate, front ... ..	1	128
DR.509	Driving screw—Cone clutch ... ..	2	129
DR.550	Asbestos insulation tube ... ..	1	130
DR.89A	Grassbox transfer ... ..	1	—
DR.95A	Transfer—Cone clutch control bracket ... ..	1	—
DR.144	Chain skate ... ..	1	131
DR.189	Tool set ... ..	1	—
DR.207B	Transfer—Petrol tank ... ..	1	—
DR.450	Chain connecting link for DR.468—Ref. No. 117 ...	1	—
DR.451	Chain connecting link for DR.68—Ref. No. 36 and DR.70—Ref. No. 38 ... ..	2	—
DR.466	Nylon slipper ... ..	1	132
DR.467	Nut ... ..	1	133
DR.487	Carriage bolt ... ..	1	134
DR.507	Transfer—Cone clutch control ... ..	1	—
L.6976	Spacer for Rear Roller ... ..	1	—
DR.41	Petrol tank ... ..	1	141
DR.129A	Flywheel—Engine shaft ... ..	1	142
DR.167	Key ... ..	1	144
DR.210	Filler cap—Petrol tank ... ..	1	146
87148	Petrol tap ... ..	1	154
87150	Petrol pipe, 12" long ... ..	1	155
DR.245	Fibre washer—Petrol tap ... ..	2	—
87162	Spanner—Spark plug ... ..	1	156
87163	Tommy bar ... ..	1	157

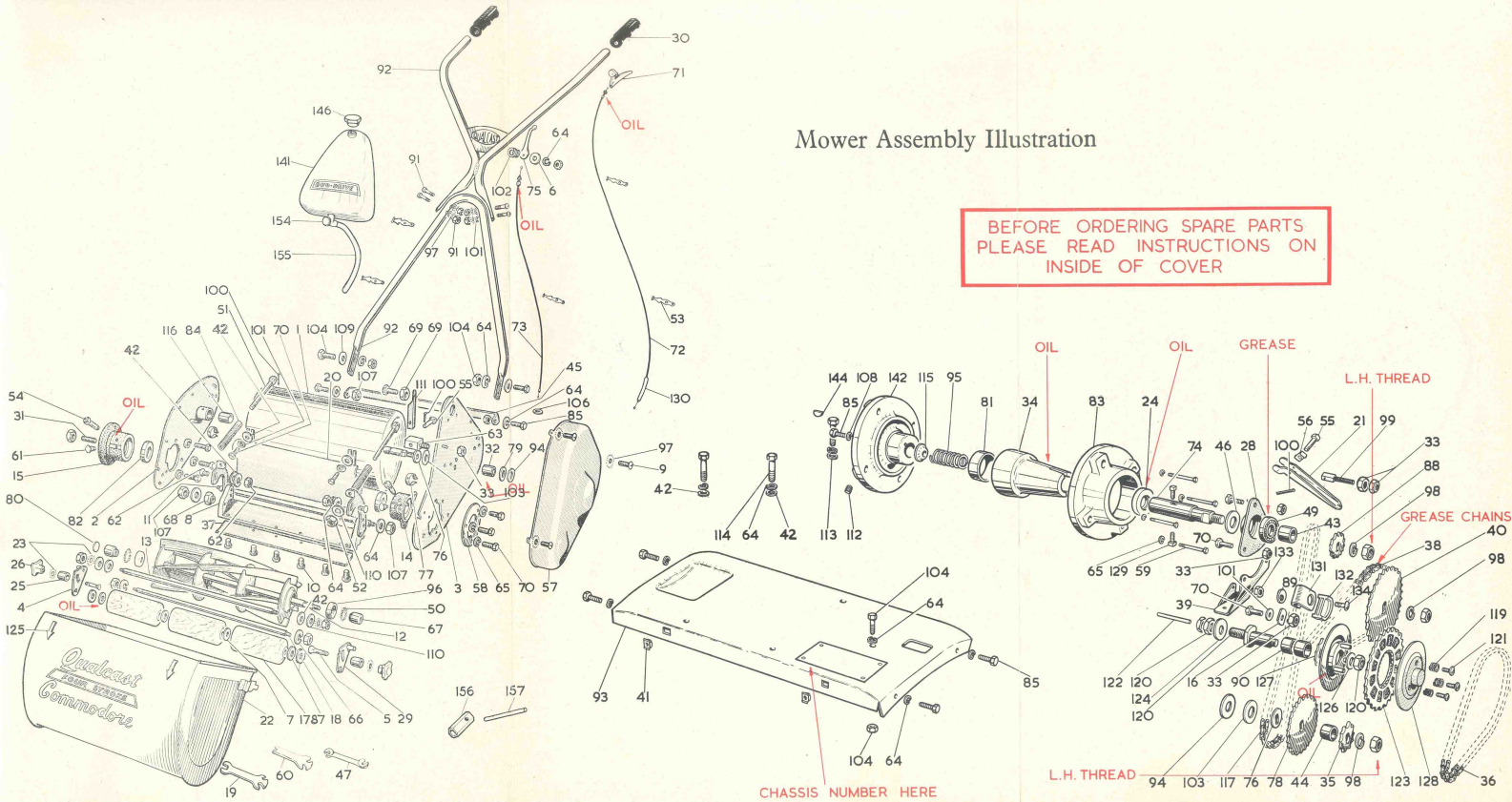
## INSTRUCTIONS FOR ORDERING SPARE PARTS

It is essential to quote the following :

- (a) The Model Name of the machine.
- (b) The chassis serial number. (*See mower assembly illustration*).
- (c) The engine serial number. (*See engine assembly illustration*).
- (d) The PART NO. of the part NOT the illustration Ref. No.

# Mower Assembly Illustration

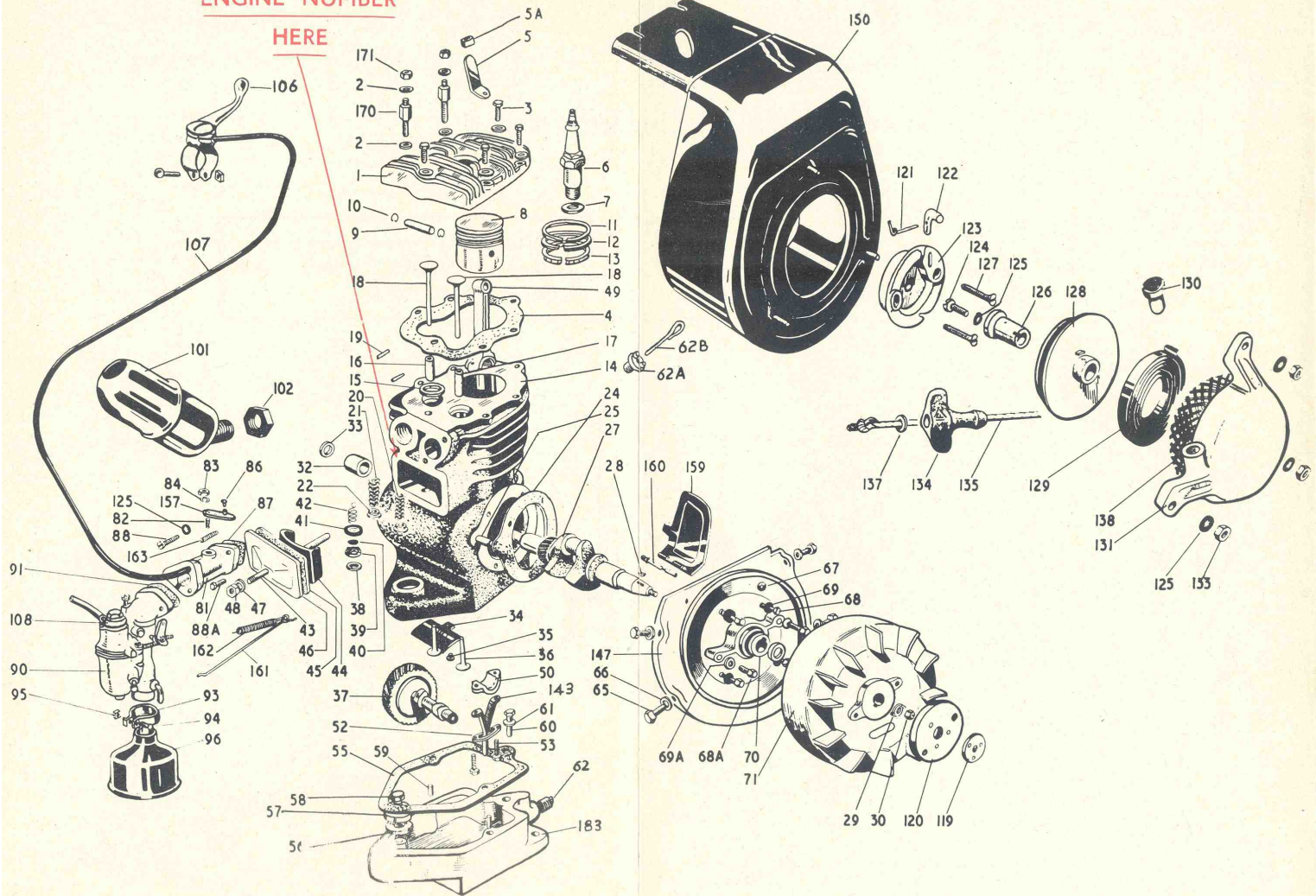
BEFORE ORDERING SPARE PARTS  
PLEASE READ INSTRUCTIONS ON  
INSIDE OF COVER



# Engine Assembly Illustration

ENGINE NUMBER

HERE



# X. ENGINE SPARE PARTS LIST

Model No.: 75 G 14-11A.

Ref. No.	Description	Part No.	No. per Set
1.	Cylinder Head ... ..	E.5926	1
2.	Washer for Cylinder Head ... ..	3N561A	8
3.	Set-Screws for Cylinder Head (Short)	5D336R	4
4.	Cylinder Head Gasket ... ..	E.5927	1
5.	Cut-Out Switch ... ..	E.3969	1
5A.	Rubber Tube ... ..	E.4083	1
6.	Spark Plug ... ..	E.3808	1
7.	Washer for Spark Plug } Supplied together		
8.	Piston ... ..	E.3513	1
9.	Gudgeon Pin ... ..	E.3517	1
10.	Wire Circlips ... ..	E.3518	2
11.	Compression Ring ... ..	E.3514	1
12.	Scraper Ring ... ..	E.3515	1
13.	Oil Ring ... ..	E.3516	1
14.	Cylinder Block ... ..	E.6891	1
15.	Valve Seat Insert—Exhaust ... ..	E.3534	1
16.	Exhaust Valve Guide ... ..	E.3532	1
17.	Inlet Valve Guide ... ..	E.3533	1
18.	Inlet Valve and Exhaust Valve ... ..	E.3526	2
19.	Valve Spring Cotter Pin ... ..	E.3531	2
20.	Inlet Valve Spring ... ..	E.3529	1
21.	Exhaust Valve Spring ... ..	E.3528	1
22.	Valve Spring Retainer ... ..	E.3968	2
24.	Paper Gasket for Flywheel Magneto Back-plate	E.3859	3
25.	Camshaft Spindle ... ..	E.6789	1
27.	Crankshaft ... ..	E.6410	1
28.	Key for Magneto Flywheel ... ..	E.3597	1
29.	Washer for Crankshaft ... ..	E.6887	1
30.	Nut for Crankshaft (Left Hand Thread) ...	L.6076	1
32.	Main Bearing... ..	E.3536	2
33.	Oil Seal ... ..	E.3813	2
34.	Breather Baffle ... ..	E.3561	1
35.	Drive Screw for Breather Baffle ... ..	E.3814	1
36.	Tappets ... ..	E.3535	2
37.	Camshaft ... ..	E.3510	1
38.	Washer for Crankcase Breather ... ..	E.3594	1
39.	Body ... ..	E.3555	1
40.	Disc Valve ... ..	E.3557	1
41.	Breather Cap ... ..	E.3556	1
42.	Breather Retainer Spring ... ..	E.3558	1
43.	Stud for Valve Chest Cover ... ..	E.3544	1
44.	Baffle for Valve Chest Cover ... ..	E.3560	1
45.	Gasket for Valve Chest Cover ... ..	E.3549	1
46.	Cover for Valve Chest ... ..	E.3543	1
47.	Washer for Stud ... ..	1N560A	1
48.	Nut for Stud ... ..	1N31A	1
49.	Connecting Rod	E.3519	1
50.	Big End Bearing Cap { Supplied together complete } with Ref. Nos. 52 & 53		
52.	Locking Strip... ..	E.3523	1
53.	Screws for Big End Bearing Cap ... ..	1D585R	2
55.	Paper Gasket for Sump ... ..	E.3547	1
56.	Washer for Bolt—Asbestos ... ..	E.3749	1
57.	Collar for Bolt ... ..	E.3566	1
58.	Bolt for Sump ... ..	1A139A	1
59.	Dowels for Sump ... ..	E.3819	2
60.	Setscrew for Sump ... ..	1D087A	1
61.	Washer for Set Screw ... ..	E.3821	1
62.	Drain Plug ... ..	E.6893	1
62A.	Filler Plug ... ..	E.6894	1



Ref. No.	Description	Part No.	No. per Set
62B.	Dip Stick for Filler Plug ... ..	E.6895	1
65.	Screw for Flywheel Magneto Cowl ... ..	3D270A	7
66.	Washer for Flywheel Magneto Cowl ... ..	3N560A	7
67.	Grommet ... ..	See Magneto	1
68.	Screw for Flywheel Magneto Backplate ... ..	1D048A	4
68A.	Screw for Magneto Stator Plate ... ..	3D048A	2
69.	Washer for Flywheel Magneto Backplate... ..	E.3844	4
69A.	Washer for Screw for Magneto Stator Plate ... ..	3N560A	2
70.	Cam—Contact Breaker ... ..	See Magneto	
71.	Flywheel ... ..	See Magneto	
81.	Inlet Manifold ... ..	E.3511	1
82.	Stud for Throttle Lever ... ..	E.3565	1
83.	Nut for Throttle Lever ... ..	PP X106	1
84.	Washer for Throttle Lever ... ..	3N610A	1
86.	Screw for Throttle Lever ... ..	3J512A	1
87.	Gasket for Inlet Manifold ... ..	E.3551	1
88.	Screw for Carburetter Assembly ... ..	3J298A	2
88A.	Screw for Inlet Manifold ... ..	3D298A	2
90.	Carburetter ... ..	E.5416	1
91.	Gasket for Carburetter ... ..	E.3550	1
93.	Securing Clip for Air Cleaner ... ..	E.3581	1
94.	Screw for Securing Clip ... ..	E.6078	1
95.	Nut for Securing Clip ... ..	1N537A	1
96.	Air Cleaner Assembly ... ..	E.6754	1
101.	Exhaust Silencer ... ..	E.4000	1
102.	Locknut for Silencer... ..	E.3568	1
106.	Control Lever ... ..	E.7005	1
107.	Control Cable ... ..	E.3853	1
108.	Petrol Banjo ... ..	See Carburetter	1
119.	Spacing Washer ... ..	E.5527	1
120.	Spacer ... ..	E.5535	1
121.	Spring ... ..	E.5526	1
122.	Driving Pin ... ..	E.5525	1
123.	Pawl Hub ... ..	E.5513	1
123a.	Pawl Hub Sub. Assy. Comprised of Items Ref. No. 121, 122 & 123	E6591	1
124.	Centre Screw ... ..	1K298A	1
125.	Washer for Centre Screw, Cover, Inlet Manifold & Carburetter ... ..	E.6865/P	8
126.	Bush ... ..	E.5524	1
127.	Screws for Pawl Hub Spacer ... ..	1H387A	2
128.	Ratchet Pulley ... ..	E.5511	1
129.	Recoil Spring... ..	E.5516	1
130.	Rope Guide Bush ... ..	E.5522	1
131.	Cover ... ..	E.5534	1
133.	Nuts for Cover ... ..	3N31A	3
134.	Rope Handle ... ..	E.5518	1
135.	Nylon Rope ... ..	E.5517	1
136.	Screw for Retaining Spring (Not illustrated).	E.5528	1
137.	Washer for Rope Handle ... ..	3N560A	1
138.	Screen ... ..	E.6590	1
139.	Disc (Not illustrated) ... ..	E.5857	1
140.	Woodruffe Key (not illustrated) ... ..	L.3845	1
143.	Oil Splasher ... ..	E.6426	1
147.	Flywheel Magneto Backplate ... ..	E.6533	1
150.	Flywheel Magneto Cowl ... ..	E.6601	1
157.	Throttle Lever incorporating Anchor and Washer ... ..	E.6755	1
159.	Governor Blade ... ..	E.6529	1
160.	Governor Blade Spindle ... ..	E.6528	1
161.	Throttle Link ... ..	E.6530	1
162.	Governor Spring ... ..	E.6536	1

Ref. No.	Description	Part No.	No. per Set
163.	Throttle Return Spring ... ..	E.6531	1
170.	Studs for Cylinder Head ... ..	E.6619	2
171	Nuts for Cylinder Head ... ..	3N45A	2
180.	Paper Gasket for Drain Plug (not illustrated)	E.6897	1
181.	Paper Gasket for Filler Plug (not illustrated)	E.6898	1
183.	Sump ... ..	E.6973	1

**This list to be read in conjunction with  
ENGINE ASSEMBLY ILLUSTRATION**

## XI. SPARE PARTS LIST FOR ZENITH CARBURETTER.

### TYPE 13.TCA C1433C.

Ref. No.	Description	Part No.
1.	Plug for Petrol Elbow ... ..	013891
2.	Washer for Ref. No. 1 ... ..	11007
3.	Filter Gauze ... ..	013893
4.	Washer for Ref. No. 1 ... ..	11007
5.	Throttle Stop Screw ... ..	015547
6.	Spring for Ref. No. 5 ... ..	08539
7.	Nut fixing Throttle Lever ... ..	P-16639
8.	Spring Washer for Ref. No. 7 ... ..	04692
9.	Throttle Lever ... ..	015824
10.	Screw fixing Bowl to Barrel (2 off)... ..	07967
11.	Spring Washer for Ref. No. 10 (2 off) ... ..	015536
12.	Carburetter Barrel (assembled with Throttle, Throttle Spindle, Throttle Lever and Tickler) ... ..	017075
13.	Washer for Needle Seating ... ..	08523
14.	Needle and Seating ... ..	016465
15.	Gasket (Bowl to Barrel) ... ..	015532
16.	Float and Needle Assembly ... ..	016620
17.	Washer for Adjustment Needle ... ..	16709
18.	Spring for Adjustment Needle ... ..	09846
19.	Adjustment Needle ... ..	013637
20.	Strangler Spindle ... ..	015530
21.	Strangler Flap ... ..	013635
22.	Split Pin fixing Ref. No. 21... ..	05370
23.	Friction Spring ... ..	013650
24.	Retaining Washer for Ref. No. 23 ... ..	08860
25.	Split Pin ... ..	05370
26.	Carburetter Bowl ... ..	017042
27.	Slow Running Tube ... ..	015461
28.	Split Pin for Tickler ... ..	05890
29.	Spring for Air-regulating Screw ... ..	015458
30.	Spring for Tickler ... ..	015454
31.	Air-regulating Screw... ..	015457
32.	Tickler Stem ... ..	016469
33.	Petrol Banjo (not illustrated) ... ..	E.5417

**This list to be read in conjunction with  
EXPLODED ILLUSTRATION OF CARBURETTER on Page 26**

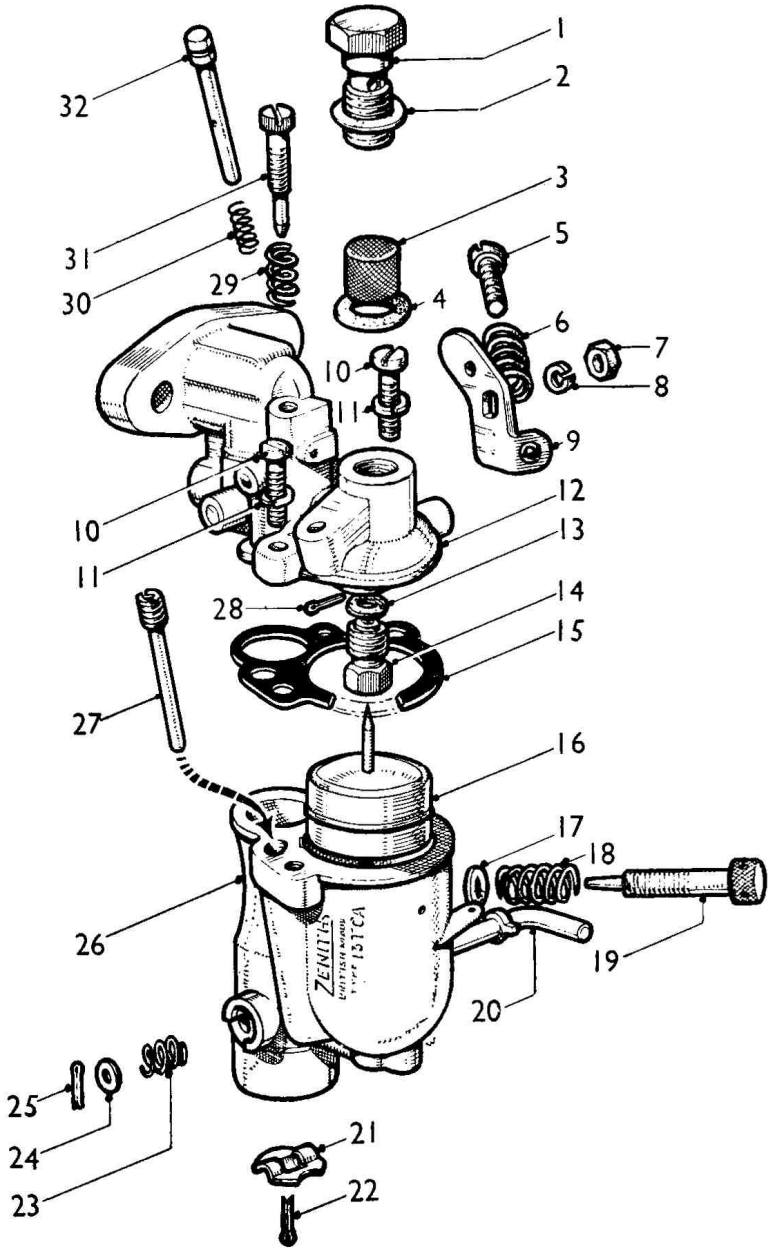
### INSTRUCTIONS FOR ORDERING SPARE PARTS

It is essential to quote the following:

- (a) The Model Name of the machine.
- (b) The chassis serial number. (*See mower assembly illustration*)
- (c) The engine serial number. (*See engine assembly illustration*)
- (d) The PART NO. of the part NOT the illustration Ref. No.



# Carburettor Illustration



## XII. MAGNETO SPARE PARTS LIST.

Ref. No.	Description	Part No.	No. per Set
1.	Flywheel ... ..	E.5010	1
2.	Clip for Condenser ... ..	E.5013	1
3.	Adjuster Plate ... ..	E.5014	1
4.	Inspection Cover ... ..	E.5019	1
5.	Eccentric Rivet. (Not illustrated) ... ..	E.5020	1
6.	Screw for Condenser Clip ... ..	E.5021	2
7.	Breaker Arm and Contact ... ..	E.5799	1
8.	Contact Point and Bolt ... ..	E.5026	1
9.	Nut for Contact Point and Bolt ... ..	1N471A	1
10.	Washer for Contact Point and Bolt... ..	1N611A	2
11.	Screw, locking Adjusting Plate ... ..	1K007A	1
12.	Washer for Screw, locking Adjusting Plate... ..	1N610A	1
13.	Spring Retainer ... ..	E.5032	1
14.	Breaker Spring... ..	E.5033	1
15.	Washer ... ..	E.5034	2
17.	Condenser ... ..	E.5037	1
18.	Cam Sleeve ... ..	E.5038	1
19.	Coil ... ..	E.5039	1
20.	Screw for Inspection Cover ... ..	E.5041	2
21.	Washer for Inspection Cover ... ..	E.5042	2
22.	Pad—Lubricating ... ..	E.5047	1
23.	Lead—High Tension ... ..	E.5049	1
23A.	Suppressor (not illustrated) ... ..	E.5521	1
24.	Grommet—Rubber ... ..	E.5051	1
25.	Cam Spring ... ..	E.5052	1
26.	Stator Assembly ... ..	E.5053	1
29.	Spring Washer for Stem 11 (not illustrated) ... ..	E.5043	1

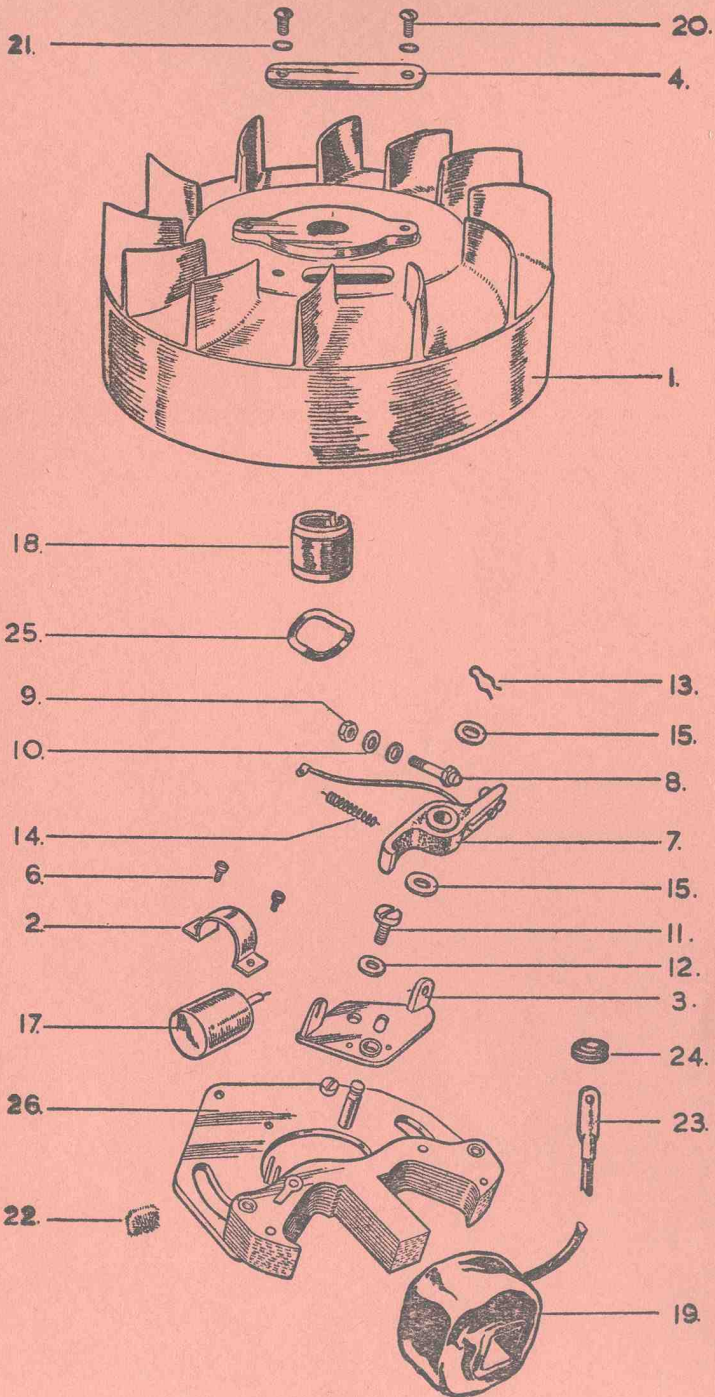
**This list to be read in conjunction with  
MAGNETO ASSEMBLY ILLUSTRATION on Page opposite**

## INSTRUCTIONS FOR ORDERING SPARE PARTS

It is essential to quote the following :

- (a) The Model Name of the machine.
- (b) The chassis serial number. (*See mower assembly illustration*).
- (c) The engine serial number. (*See engine assembly illustration*).
- (d) The PART NO. of the part NOT the illustration Ref. No.

# Magneto Assembly Illustration



Sole Manufacturers

**QUALCAST LIMITED**  
**SUNNYHILL AVENUE**  
**DERBY**

Telephone : DERBY 21201 (10 lines)

Cables : "QUALCAST, DERBY"