

INSTRUCTION BOOK

**DANARM**

**110 MANUAL**

**110 AUTOMATIC**

**125 MK II AUTOMATIC**

**CHAIN SAWS**

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**DANARM LIMITED**

SLAD WORKS, SLAD ROAD,  
STROUD - GLOUCESTERSHIRE  
GL5 1RF - ENGLAND

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# DANARM CHAIN SAW

*110 MANUAL*  
*110 AUTOMATIC*  
*125 MK II AUTOMATIC*

## INSTRUCTION BOOK

(Date of Issue 1st April, 1969)

### SPARE ORDERS

WHEN ORDERING PAINTED SPARE PARTS IT IS  
IMPORTANT TO STATE THE COLOUR REQUIRED  
TO SUIT YOUR MACHINE MODEL.

### **DANARM LTD.**

SLAD WORKS, SLAD ROAD,  
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## FOREWORD

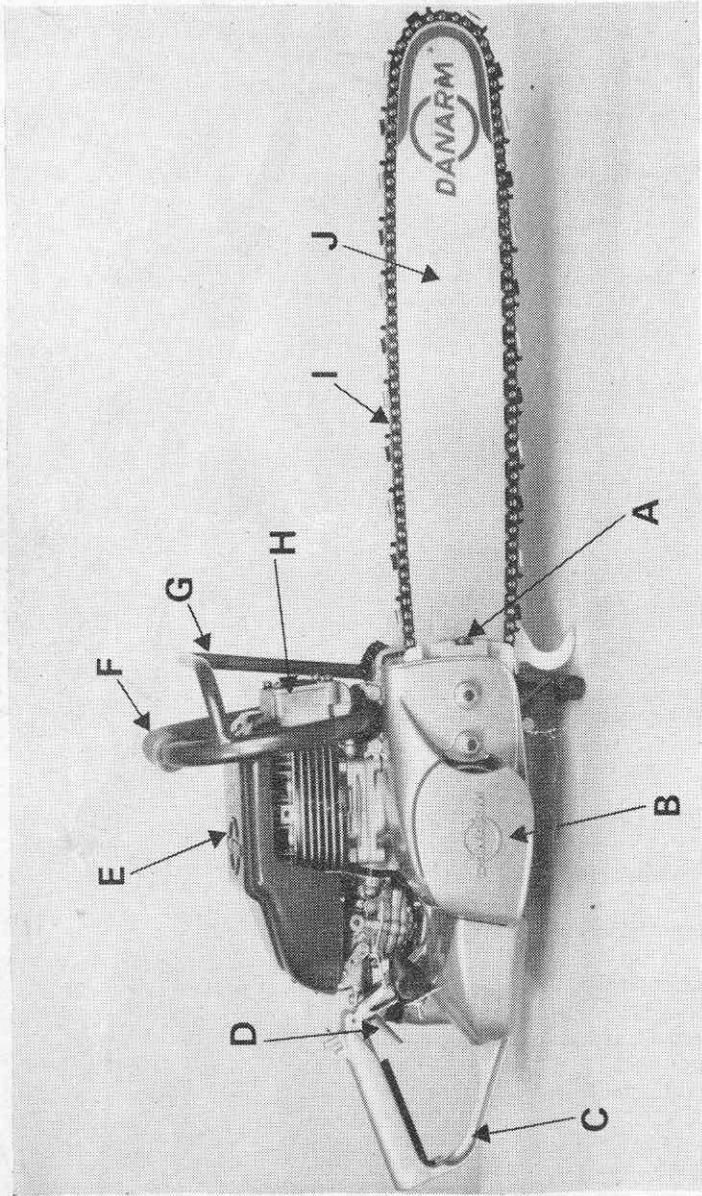
The 110 and 125 type chain saws manufactured in the United Kingdom by Danarm Limited of Stroud are well-proven machines which enjoy a reputation for reliability, high performance and ease of maintenance.

Interchangeability of parts between the three models in this booklet, the 110 Manual, the 110 Automatic and the 125 Automatic Mark II is of consequence to service dealers and users alike and availability of a highly efficient spare parts service is a feature of Danarm operations throughout the world.

Operated and maintained in accordance with the instructions contained in this booklet your Danarm chain saw will fully justify your confidence in the purchase of this British engineered machine.

## LIST OF CONTENTS

Unpacking and Assembling .. .. .	5
Fuel and Lubrication .. .. .	6
Starting Instructions .. .. .	7
Operating Instructions .. .. .	7
Safety Rules .. .. .	8
Routine Maintenance .. .. .	9
Chain Maintenance .. .. .	11
Chain Troubles .. .. .	13
Fault Finding Chart .. .. .	14
Trouble Chart .. .. .	15
Parts List	
Engine Group .. .. .	16
Magneto Group .. .. .	18
Rear Handle Group .. .. .	20
Oil Pump Group .. .. .	32
Clutch Group .. .. .	22
Cutter Bar Group .. .. .	22
Silencer, Air Filter and Cowling Group .. .. .	24
Starter Group .. .. .	28
Decompression Arrangement (125 only) .. .. .	26
Carburettor List .. .. .	30
Tool List .. .. .	35



- A. CHAIN TENSION SCREW
- B. SPROCKET GUARD
- C. REAR HANDLE
- D. THROTTLE LEVER
- E. OUTER COWLING

- F. FRONT HANDLEBAR
- G. GUARD BAR
- H. SILENCER
- I. CHAIN
- J. CUTTER BAR

## UNPACKING AND ASSEMBLING

The fitting of the chain and cutter bar should be carried out in the following steps:

Remove the sprocket guard, with its two nuts and washers, also the outer well side plate.

Install the cutter bar on the two studs, sliding it back as far as it will go.

Loop the chain over the sprocket—be careful, the cutting teeth are very sharp—with the teeth pointing forwards in the top of the cutter bar, and fit the heels of the drive links into the groove all the way round, then pull the cutter bar and chain forward away from the machine. Figure 1.

Fit the outer well side plate and sprocket guard, first unscrewing the chain adjusting screw fully so that the chain adjusting pin fits into the slot in the cutter bar. The sprocket guard should be flush with the cutter bar if the pin has entered properly. Figure 2.

Fit the two washers and nuts, leaving the cutter bar just free to slide. Then tighten the chain adjusting screw, which pulls the cutter bar away from the machine and thus tensions the chain.

When the chain is tight, slacken the adjusting screw so that the chain can be lifted to the point where the heel of the drive link is just clear of the cutter bar, then tighten the two main nuts and re-check the tension. This tension test is made half way along the cutter bar.

When this is done correctly it should be possible to pull the chain freely round the cutter bar with finger and thumb.

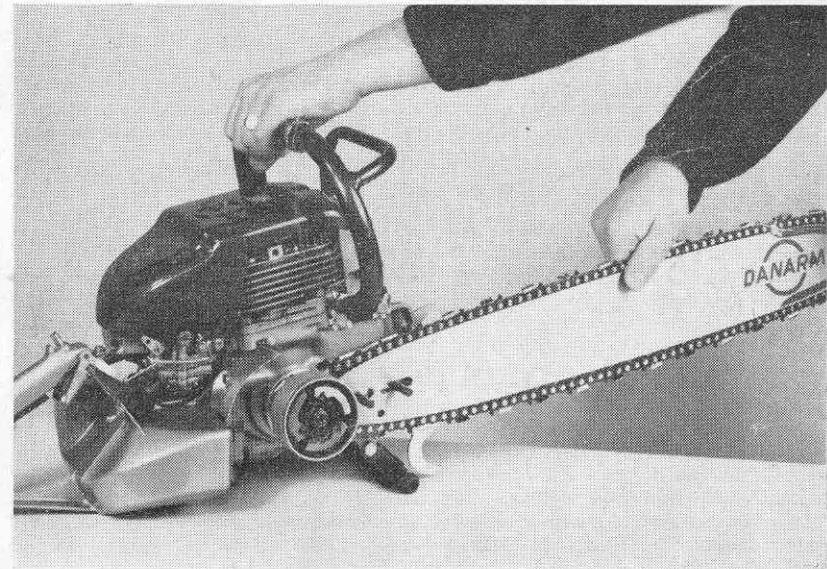


FIG. 1

- A. CHAIN ADJUSTMENT SCREW
- B. SPIGOT
- C. SPROCKET COVER

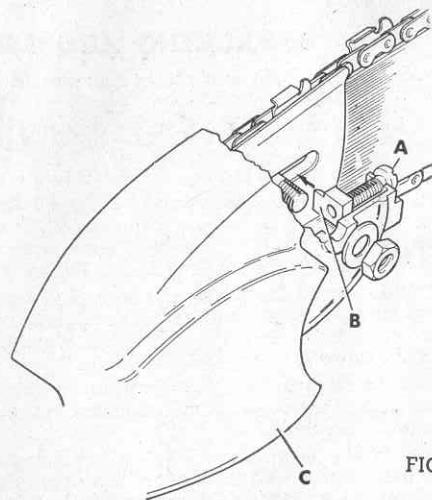


FIG. 2

### FUEL AND LUBRICATION

The only source of lubrication for this type of engine is by means of oil previously mixed in the fuel. On no account should NEAT petrol be used otherwise damage to the engine will occur.

Any brand of Regular grade petrol (gasoline) is recommended and the oil should be a high quality, SAE 30 grade, such as the following:

CASTROL 2-4 (two stroke)	SHELL 2T (two stroke)	ENERGOL 30
DUCKHAMS TWO STROKE	ESSO 2T (two stroke)	SHELL X-100-30

The proportions should be 16 parts of fuel to 1 part of oil, which is  $\frac{1}{2}$  pint of oil to 1 gallon of fuel, or 1 pint of oil to 2 gallons. The fuel should be mixed thoroughly in a separate, clean container and very well stirred or shaken. If the oil is not thoroughly mixed it will settle to the bottom and when you fill the engine tank you will leave the oil behind. So make sure that thorough mixing is achieved, particularly in winter when the oil is thick.

Always clean the sawdust away from the filler caps before unscrewing, otherwise sawdust may get into the petrol tank or oil tank.

Always use a funnel with a fine mesh filter.

### CHAIN OILING

The chain oil tank is at the front of the machine, and can be filled with any ordinary machine oil of about SAE 10-30 consistency. In very cold weather, or with resinous wood, the oil may be mixed with paraffin (kerosine)—4 parts oil to 1 part paraffin. ALWAYS USE CLEAN OIL.

The automatic oiler is adjusted at the factory to deliver a volume of oil suitable for average cutting conditions. A change in volume may be desired when cutting dry and hard woods, heavy pitch or sap, and in sandy or abrasive cutting areas. Oil output may be increased or decreased by an adjusting screw in the end of the pump body (Part No. 55713). Turning the screw clockwise decreases the rate of flow; turning screw anti-clockwise increases the flow. To make any adjustment the oil must be drained from the tank, remove the tank cover and loosen the locknut on the adjusting screw.

This saw is also fitted with a manual operated pump to assist the automatic system should it be desirable to increase the volume of oil in certain cutting conditions without having to adjust the automatic system.

It is advantageous to prime the system by using the manual oiler lever a few times after refilling the oil tank.

**ALWAYS REFILL THE OIL TANK AT THE SAME TIME AS FILLING UP WITH PETROIL MIXTURE.**

### STARTING FROM COLD

When starting in the morning, especially on cold days, it is advantageous to pull the engine over several times with the ignition off and the choke on, in order to free the engine. The standard starting procedure (as described below) should then be followed:

- (1) Place the saw in a convenient place on the ground where it will sit firmly.
- (2) Apply the choke by moving its lever downwards. Move the ignition switch to "ON" (Down position).
- (3) Open throttle lever fully and engage throttle stop by pressing inwards with the forefinger, then release throttle.
- (4) Place one foot on the rest provided and steady the machine by grasping the front handle.
- (5) Pull starter handle gently up to compression point, retain in this position then pull sharply.
- (6) Repeat until the engine fires. If the engine fails to continue to run move choke up to "run" position and re-start. Immediately engine is running disengage throttle stop by pressing lever downwards with the thumb.
- (7) Run the motor just fast enough to turn the chain and work the oil pump until the chain is thoroughly lubricated.

(N.B.—When the engine is new, treat it as you would a new car. Give it plenty of time to warm up. Do not push it through long cuts without easing up periodically. Always cut at full throttle but idle or stop for a short while after, or even during, every long cut for the first ten days.)

An Alternative Method of Starting is:

With the left foot on the footrest and the right hand on pistol grip open the throttle with the forefinger and engage starter slowly with the left hand (as point 5).

### STARTING FROM HOT

The procedure is the same except that the choke may not be necessary. If, however, three pulls will not start the engine, then apply the choke.

If the engine has stopped through running out of fuel, the choke will definitely be needed to prime the system.

If it is suspected that the engine will not start due to over-choking, set the choke at "run" and, with the throttle wide open, pull the engine over several times. It should start in five or six pulls.

### OPERATING INSTRUCTIONS

If you have not previously used a chain saw, it would be wise for you to obtain instruction from your dealer or an experienced friend. If this is not possible, get as much practice as possible making crosscutting (bucking) cuts before attempting the more difficult felling operation.

Always ensure you have a good clear working area around the log and whenever possible, jack the log up clear of the ground. Never permit the saw chain to contact the ground. Always examine the log for stones or sand embedded in the bark and for nails and wire, especially when cutting hedgerow timber.

For preliminary oiling of the chain operate the pump lever several times while the engine is at a standstill.

With the engine idling, rest the saw chain on the log with the felling dog set against the front of the log. Fully open the throttle and proceed to cut by slight forward and downward pressure on the front handle, allowing the saw to pivot about the lowest spike into the log. This will produce cutting towards the far side of the log. Then ease off the pressure on the front handlebar and apply slight downward pressure on the rear handle allowing the cut to continue in the nearside of the log. During this cut it will be necessary to slightly ease the saw away from the log to allow the felling dog to ride downwards. When the cut is approximately in line with the ground apply forward pressure on the front handle using the lower spikes for pivoting as before. Towards the end of the cut level off to prevent the saw chain striking the ground and be ready to release the throttle. Always keep the throttle fully open when cutting, the engine speed being controlled by the pressure on the chain.

Do not allow the engine speed to drop too low, causing the clutch to slip. Never allow an unloaded engine to race on full throttle.

If the chain gets jammed or pinched by the log, the clutch will slip to prevent stalling the engine, so release the throttle immediately before trying to release the cutter bar. Never keep the throttle open when the clutch is slipping because this will ruin the clutch.

The carburettor is set by the manufacturer, and instructions are given on page 10 for the complete adjustment procedure, but during cutting some light re-adjustment of the high speed mixture screw might be necessary. This is the screw on the right-hand side marked "H".

If the engine smokes and shows a reluctance to get up to speed and to fire regularly after cutting has started, it is probably getting too much fuel, so close the adjustment (screw marked "H") slightly by rotating it clockwise a little, no more than  $\frac{1}{8}$  of a turn.

If the engine tends to stall in the cut, although the speed comes up easily and it readily fires evenly when starting to cut, then it is not getting enough fuel, so rotate the adjustment slightly in the other (counter-clockwise) direction.

All carburettor adjustments must be very slight.

## SAFETY RULES

Spilled fuel can be ignited by contact with the hot silencer or with the exhaust gases, or by a random spark from the ignition system. Spilled fuel on the machine or on the ground is dangerous. Dry the machine or move it before starting.

Sawdust around the exhaust can ignite, and the exhaust gases playing directly on sawdust or bark dust can easily start a fire, particularly in the dry season.

Never permit anyone—including yourself—to be near the chain when the engine is running. Always switch off.

Do not carry the saw more than a few paces with the engine running.

Do not wear loose garments, and do wear protective clothes and, if possible, a safety helmet.

Never start cutting until you have a clear place to work, a firm footing, and a safe exit from falling timber or rolling logs. Do not wait to take the saw with you. Always give adequate warning to others in the vicinity when you are felling a tree.

Watch out for falling limbs when a tree is coming down, particularly dead trees, on which the vibration of cutting can loosen branches.

When limbing a fallen tree, branches touching the ground are often dangerously springy when cut. Stand on the opposite side of the log.

Never operate the saw in a closed room—fumes are deadly.

## ROUTINE MAINTENANCE

This saw is remarkably reliable and, with very little care, will have a long life. Regular maintenance—which does not take much time—will prove most rewarding in performance, economy and extended life. The periods given hereunder are just a rough guide.

**Cutter Bar:** At regular intervals reverse the cutter bar in order to distribute the wear.

### DAILY

**General:** Make a point of cleaning the machine off after use, checking the tightness of all nuts and screws.

### WEEKLY

**Cooling Fins:** Remove the cowling and clean the cylinder and cylinder head fins. Tighten the cylinder head screws, the cylinder base nuts and the silencer nuts at the same time.

**Cutter Bar:** Remove the chain weekly (see chain instructions) or more often if necessary. Clean the groove of the cutter bar to remove accumulated dirt and sawdust.

**Air Filter:** Remove the air filter element carefully and clean by blowing and gently tapping. If sawdust falls into the air inlet manifold, remove and clean it out. Replace carefully.

### MONTHLY

**Spark Plug:** Remove the plug, examine for fouling and set the points to a gap of .015/.020 inches. If the plug is very dirty you may be running with too rich a mixture, too much oil in the petrol, badly mixed fuel, or an unsuitable oil.

The plug must be a Champion XJ8.

**Fuel Filter:** Clean the felt once a month at least.

### De-carbonising:

From time to time, in order to de-carbonise the engine, undo the six capscrews and remove the cylinder head. Turn the engine, with the aid of the pull starter, until the ports are clear. With a suitable softwood stick push the carbon through the exhaust ports to the outside. Before doing this, place a piece of cloth covering the piston top so that dirt does not get inside the cylinder.

Finally, turn engine so that the piston is at its highest point and remove carbon from the piston top.

Also, scrape off accumulated carbon in the cylinder head.

Before replacing cylinder head fit new gasket. Replace cylinder head with the sparking plug hole on the pull starter side.

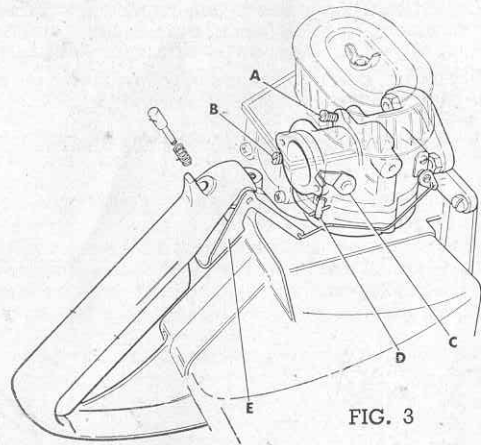


FIG. 3

- A — IDLE SPEED MIXTURE SCREW
- B — IDLE MIXTURE SCREW
- C — CHOKE LEVER
- D — HIGH SPEED MIXTURE SCREW
- E — THROTTLE LEVER

**Carburettor Adjustment:** Sometimes the carburettor inadvertently gets badly out of adjustment, and it is wise to start again from the basic settings. As shown (Figure 3) there are three adjustments:

- (a) the idle speed throttle screw which controls the amount the throttle is open when idling, and hence the idling speed;
- (b) the idle mixture screw which controls the needle which gives the proportion of fuel and air when idling: body marked "L" adjacent to screw;
- (c) the high speed mixture screw controls the needle which gives proportion of fuel and air at full throttle: body marked "H" adjacent to screw.

The basic settings are obtained as follows:

- (a) unscrew (counter-clockwise) the idle speed throttle screw until it no longer touches the lever, screw it in until it just touches the lever, and then give it a further  $1\frac{1}{2}$  turns. This will be a little too fast—purposely, as will be seen hereunder;
- (b) turn the idle mixture screw in fully (clockwise) without forcing it—otherwise it will damage its aluminium seat—then unscrew it  $\frac{1}{2}$  of a turn;
- (c) turn the high speed mixture screw in fully in the same manner, and screw back  $\frac{3}{4}$  turn.

When the engine is warm, if there is hesitation in picking up from idling when the throttle is opened, then unscrew the idle mixture screw slightly, but it should never be more than one turn open. This will probably slow down the idle speed a little.

The idle speed throttle screw has been set slightly high initially to allow for this slowing down, so if the chain is moving unscrew the idle speed throttle screw slowly until the chain stops.

The final adjustment of the high speed mixture must be made when sawing and is dealt with in the Operating Instructions on page 7.

If it is necessary to open the idle mixture needle screw for more than a full turn then there must be an air leak somewhere which needs correction.

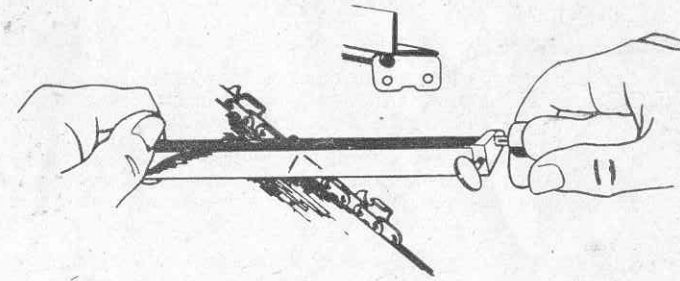


FIG. 4

## CHAIN MAINTENANCE

When it is necessary to use pressure for cutting it is a sure sign that the chain is dull. This should be corrected immediately. Never cut with a dull chain—this will ruin the chain, sprocket, cutter bar and engine. **FILE LITTLE BUT OFTEN.**

To file the chain in place, tighten it on to the cutter bar, sharpen the accessible teeth, then slacken and move the chain around to another section. Continue until all the teeth are sharpened.

Use a sharp file and the file holder provided (Figure 4). Take a firm grip and make a steady pass through the tooth without rocking. The file angle should be as shown in the diagram, and the file should be held horizontally.

When a chain has been filed several times, the teeth recede and the depth gauges must be filed down accordingly. It is very inadvisable to file too much off the depth gauge as it will make the chain very fierce and rough and this can then only be corrected by filing the cutting teeth back until the correct relation in height (clearance or gap) of depth gauge and cutting tooth is achieved.

Left and right sides of the chain must be absolutely even, i.e., the same in angle and height—this is vital—otherwise the chain will run off to one side.

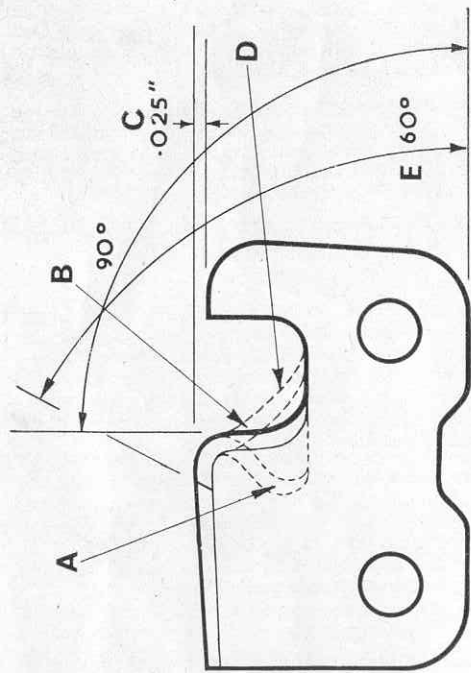
If the chain does not appear to be cutting as freely and as well as it should, take it off immediately and replace with spare chain. If you find no fault with chain consider the kind of wood you are cutting—perhaps its knotty nature or particular hardness will be the explanation. In any case, it is a wise precaution to carry a spare chain with you which you should interchange immediately you see that your chain is dull or damaged. Experienced professionals usually carry three sharp chains when they go out in the morning. One is a spare in case of accidental damage, and the two used are sharpened after work.

It is essential that the proper relation between the heights of the tooth and the depth gauge (clearance; gap) be maintained. When sharpening the cutting teeth, which automatically reduces height, it is also necessary to reduce the height of the depth gauge correspondingly. If this is not done and the depth gauge has the same height as the cutter, the chain will not cut but will hit the timber with the depth gauges causing frequent breakages.

Keep chain in oil overnight.

If it is necessary to replace one or more cutting teeth they must be filed back in accordance with the wear of the other teeth. The depth gauges must be lowered to the height of the others.

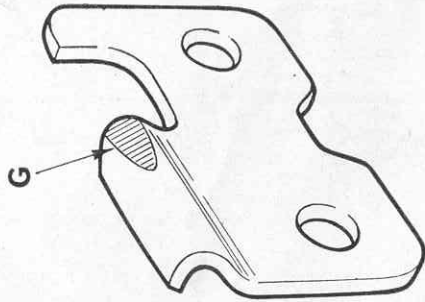
It is essential to use the correct file— $\frac{3}{16}$ -inch round parallel file—for the .404-inch chain.



A. HOOK (WRONG)  
B. SIDE ANGLE (CORRECT)  
C. DEPTH GAUGE CLEARANCE

D. FORWARD SLOPING (WRONG)  
E. TOP ANGLE  
F. MAIN ANGLE

FIG. 5



G. ABRASION MARK

FIG. 6

## CHAIN TROUBLES

Trouble can be experienced in three different ways, which are as follows:

1. The chain requires pressing into the cut more than usual and the sawdust does not come out in large, clean-cut shavings, but contains a lot of fine powdery dust. Pick up a handful and examine it.
2. The saw will not cut straight, but runs to one side, perhaps so much that the engine slows because the chain at the top of the bar is being pressed against the side of the cut. (In rare cases this just happens at the far end of a cut due to a bent cutter bar, but is not a fault of the chain.)
3. The chain is very rough, and is hard to feed smoothly and without grabbing.

IN THE CASE OF (1) above the following are the usual causes:

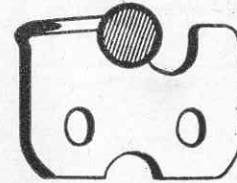
- (a) Chain not sharp.
- (b) Insufficient depth gauge clearance (see Fig. 5C).
- (c) Top angle too steep (see Fig. 5E).

Chains are often rubbed off on the outer curved side of the cutter by abrasion (contact with sand, gravel or metal, or excessive cutting with a dull chain). This brings the cutting edge of the chain inwards, and out of contact with the timber, so it is necessary then to file the teeth back until this condition is removed. Fig. 6 shows how the chain looks when this condition exists. This is probably the most common beginners difficulty, as they are very prone to let the chain dig into the ground thus creating this condition which will not respond to a single sharpening. After correcting the tooth which shows the greatest wear, all other teeth must be filed back to the same length, depth gauges must then be filed to the correct dimension.

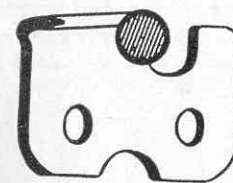
IN THE CASE OF (2) above the chain cuts better on the one side than the other, and the following are the usual causes:

- (a) Teeth dull on one side, perhaps by abrasion.
- (b) Insufficient depth gauge clearance on one side.
- (c) Top angle too steep on one side.
- (d) Main angle on left and right not the same.
- (e) Side angle incorrect on one side.

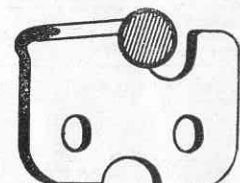
IN THE CASE OF (3) above, there is only one common cause, which is that the side angle is hooked, as shown in Fig. 5A. This cannot occur if the correct size of file is used in the file holder supplied. Roughness can also be caused by the depth gauges having been filed down too far.



Oversize—wrong, cutter edge blunt



Undersize — wrong, cutter has feather edge and hook



Right — correct size — peak performance



# DANARM FAULT FINDING CHART

	Insufficient oil	Dull chain	Chain too loose	Chain too tight	Side cutting edge sloping back	Side cutting edge sloping forward (hook)	Top cutting edge too square	Top cutting edge too fine	Main angle too square	Main angle too fine	Abrasion, earth, sand, etc.	Worn or incorrect sprocket	Insufficient depth gauge clearance	Too much depth gauge clearance	Unequal or unbalanced filing	Unequal or unbalanced depth gauge clearance	Worn or plugged groove in cutter bar	Cutter bar bent or worn
Will not feed easily																		
Will not cut straight																		
Chain grabs																		
Chain loose and worn																		
Link bottoms hammered																		
Link bottoms hammered front																		
Link bottoms worn curved																		
Link bottoms worn flat																		
Link bottoms heel worn																		
Cracked rivet holes																		
Link notch hammered																		
Heel of drive link damaged																		
Bottom of drive link hammered																		
Bottom of drive link worn																		
Bottom of drive link rough																		
Bottom of drive link one side worn																		
Bottom of drive link both sides worn																		
Bottom of drive link grooved																		
Side of chain polished																		

## TROUBLE CHART

IF THE ENGINE WILL NOT START, yet is free and easy, has good compression, the cause is among the following:

- (1) Shortage of fuel—check fuel tank;
- (2) Choke or ignition switch in wrong position;
- (3) Choke used too much;
- (4) Carburettor high-speed mixture adjustment incorrectly set;
- (5) Insufficient spark;
- (6) Frozen water in filter or carburettor.

If the engine is very stiff to turn over (of course it will be stiffer in the winter), it should be examined by a competent mechanic. If the compression is very poor a mechanic is again indicated, but first check the cylinder head bolts and the spark plug for tightness. A whistling sound indicates a broken cylinder head gasket.

If the spark is suspected, remove the cowlings and the plug, re-attach the wire to the plug, rest the plug on the cylinder head, metal to metal, and turn the engine over by pulling the starter. If a blue spark regularly jumps the plug points, even when the engine is pulled over fairly slowly, the ignition is all right, but if you have to give a really sharp pull to get a spark at all, something is wrong. Try another plug (you should always have a spare, and there is one in the tool kit) and if that is not better, then the magneto is at fault.

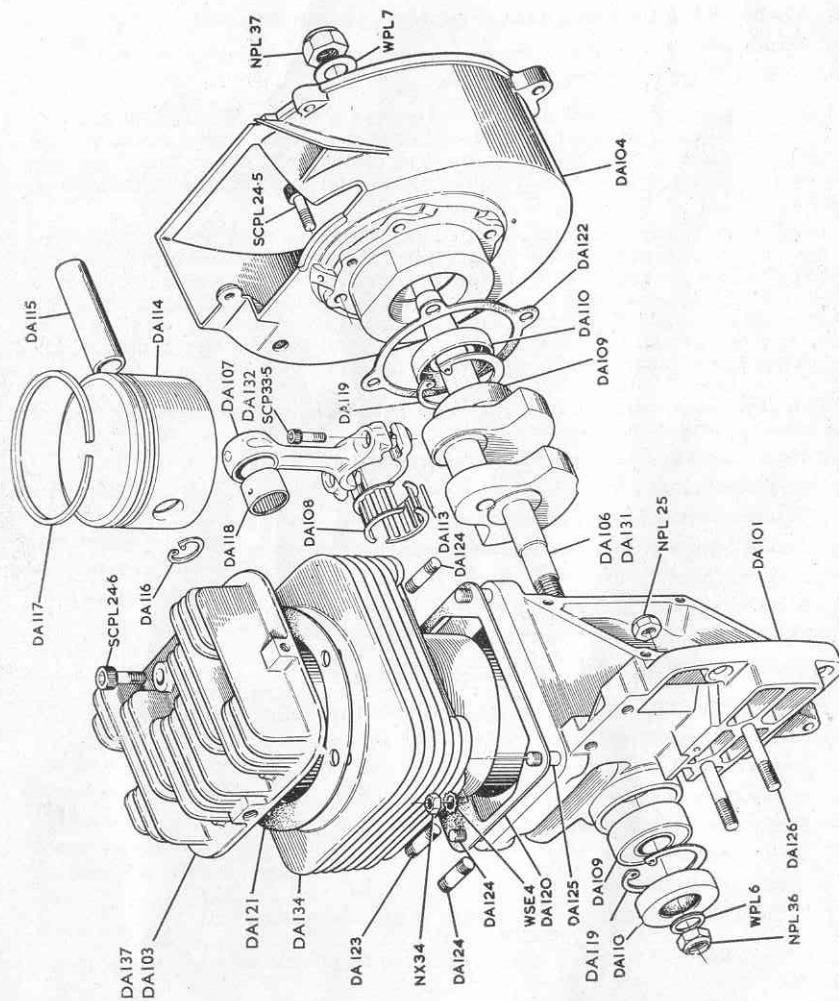
IF THE ENGINE WILL NOT RUN AT FULL THROTTLE yet starts readily, one of the following will be the cause:

- (1) High speed mixture adjustment incorrectly set;
- (2) Fuel filter clogged;
- (3) Faulty or mal-adjusted carburettor;
- (4) Exhaust ports or manifold fouled with carbon;
- (5) Dirty air filter;
- (6) Blocked air vent in filler cap;
- (7) Faulty spark plug (engine will be mis-firing);
- (8) Faulty magneto (engine will be mis-firing).

IF THE ENGINE WILL NOT IDLE yet runs at full speed properly, the following are the most likely causes:

- (1) Incorrect carburettor settings;
- (2) Loose carburettor nuts;
- (3) Faulty carburettor gaskets;
- (4) Faulty carburettor;
- (5) Leaky crankshaft seal;
- (6) Faulty cylinder base gasket or faulty crankcase gasket.

It will be noted that proper routine maintenance eliminates most of the above troubles.



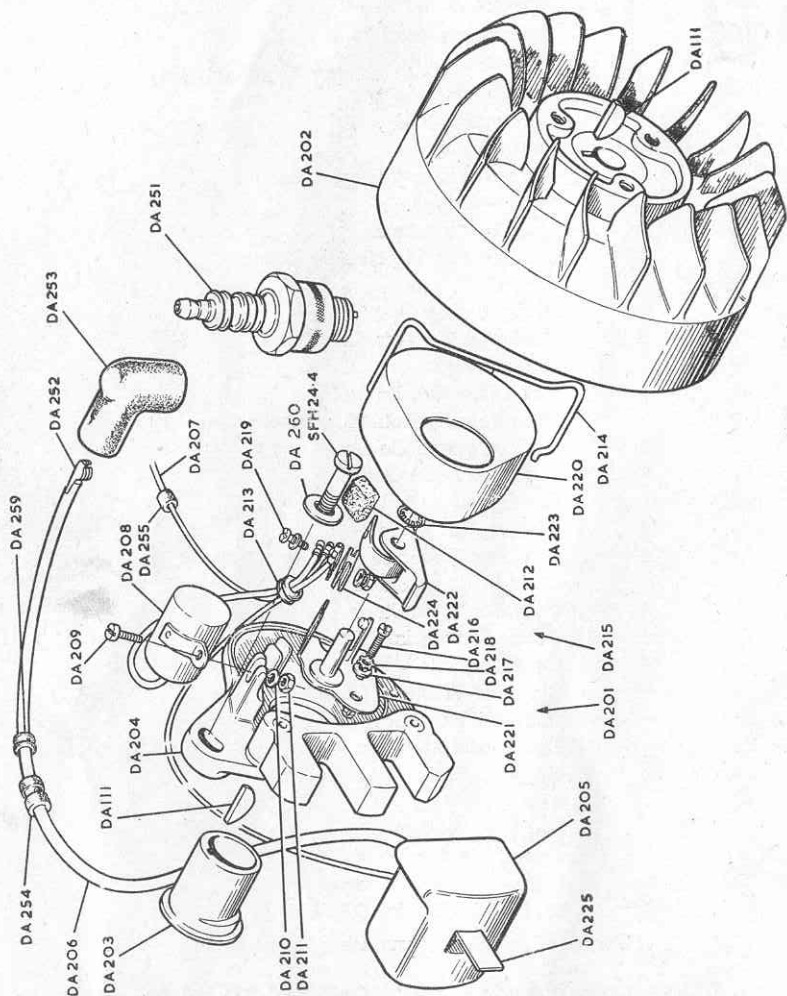
**ENGINE GROUP**

**LIST OF PARTS FOR ENGINE GROUP**

Part No.	No. Off	Description
DA. 101	1	Crankcase
DA. 134	1	Cylinder and Liner Assembly
DA. 103	1	Cylinder Head
DA. 106	1	Crankshaft
DA. 107	1	Connecting Road
DA. 137*	1	Cylinder Head
DA. 131	1	Crankshaft
DA. 132	1	Connecting Rod
DA. 104	1	Fan Housing
DA. 108	1	Big End Bearing Cage 2 Part
DA. 109	2	Main Bearings
DA. 110	2	Main Bearing Seals
DA. 113	12	Big End Bearing Needle Rollers
DA. 114	1	Piston
DA. 115	1	Gudgeon Pin
DA. 116	2	Gudgeon Pin Retaining Clips
DA. 117	2	Piston Rings
DA. 118	1	Small End Needle Bearing
DA. 119	2	Main Bearing Retaining Circlips
DA. 120	1	Cylinder Base Gasket
DA. 121	1	Cylinder Head Gasket
DA. 122	1	Fan Housing Gasket
DA. 123	2	Carburettor Studs
DA. 124	6	Rear Handle Studs (2), Silencer Studs (2), Cylinder Rear Studs (2)
DA. 125	2	Cylinder Front Studs
DA. 126	2	Cutter Bar Studs
NX. 34	4	Cylinder Nuts
WSE. 4	4	Cylinder Washers
SCPL. 24.6	6	Cylinder Head Screws
SCPL. 24.5	4	Fan Housing Screws
NPL. 37	1	Magneto Rotor Nut
NPL. 36	1	Clutch Nut
WPL. 7	1	Magneto Washer
WPL. 6	1	Clutch Washer
SCP. 33.5	2	Connecting Rod Screws
NPL. 25	2	Stud Lock Nuts for DA. 126

\* See decompression arrangement page 26.

**ALL PARTS LISTED ABOVE ARE COMMON TO 110 MANUAL, 110 AUTOMATIC AND 125 MK. II AUTOMATIC MODELS WITH THE EXCEPTION OF THOSE PARTS INDICATED.**

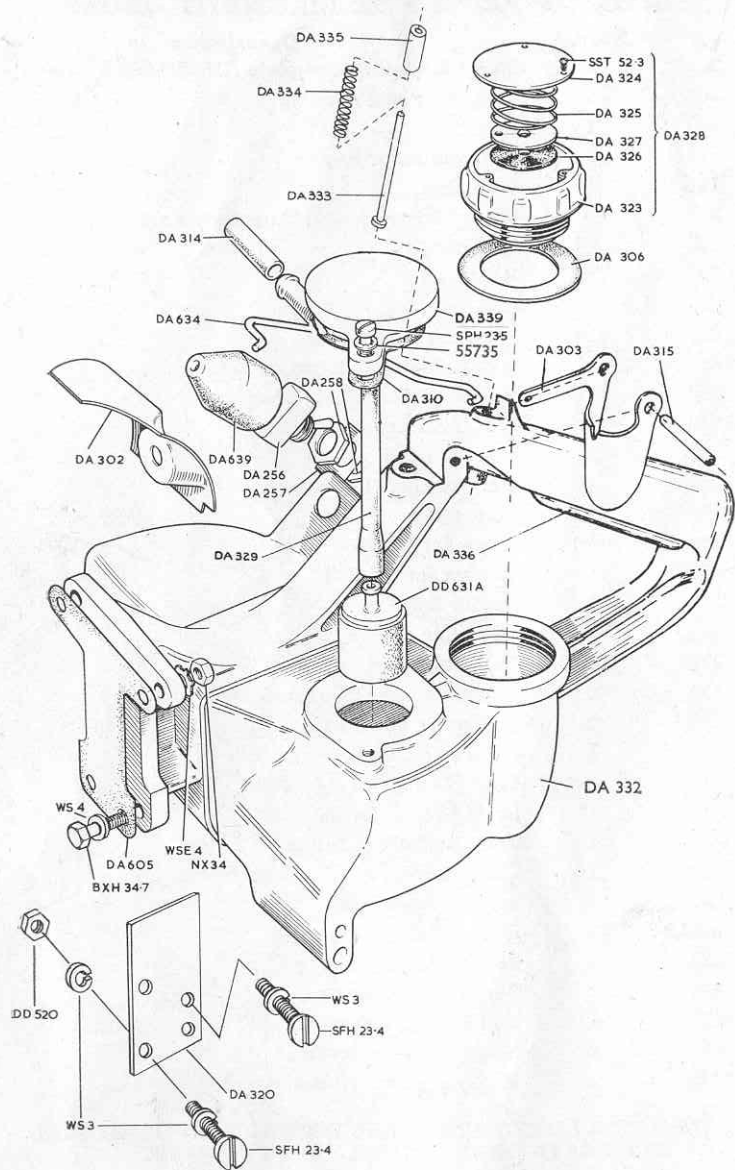


MAGNETO GROUP

LISTS OF PARTS FOR MAGNETO GROUP

Part No.	No. Off	Description
DA. 201	1	Stator Assembly Complete (DA.204-225 inclusive)
DA. 202	1	Magneto Rotor and Fan
DA. 203	1	Cam
DA. 111	1	Magneto Rotor Key
DA. 111	1	Cam Key
DA. 204	1	Stator Plate with Coil Core Assembly
DA. 205	1	Ignition Coil
DA. 206	1	H.T. Lead
DA. 252	1	H.T. Terminal
DA. 253	1	Sparking Plug Cover
DA. 251	1	Sparking Plug (Champion XJ8)
DA. 254	1	H.T. Lead Grommet (Inner)
DA. 259	1	H.T. Lead Grommet (Outer)
DA. 207	1	Cut Out Lead
DA. 255	1	Cut Out Lead Sleeve
DA. 208	1	Condenser
DA. 209	1	Screw for DA.208
DA. 210	1	Washer for DA.208
DA. 211	1	Nut for DA.208
DA. 212	1	Felt Oiler Pad
DA. 213	1	Cable Insulator
DA. 214	1	Breaker Cover Retaining Clip
DA. 215	1	Contact Breaker Assembly inc. DA.219, 221-4
DA. 216	1	Breaker Fixing Screw
DA. 217	1	Plain Washer for DA.216
DA. 218	1	Lock Washer for DA.216
DA. 219	1	Terminal Screw, Nut and Washer
DA. 220	1	Contact Breaker Protection Cover
DA. 221	1	Breaker Base Plate
DA. 222	1	Rocker Arm with Spring
DA. 223	1	Rocker Arm Retaining Clip
DA. 224	1	Terminal Insulator
DA. 225	1	Coil Retaining Strip
SFH. 24.4	2	Magneto Stator Screw
DA. 260	2	Magneto Stator Washer

ALL PARTS LISTED ABOVE ARE COMMON TO 110 MANUAL, 110 AUTOMATIC AND 125 MK. II AUTOMATIC MODELS

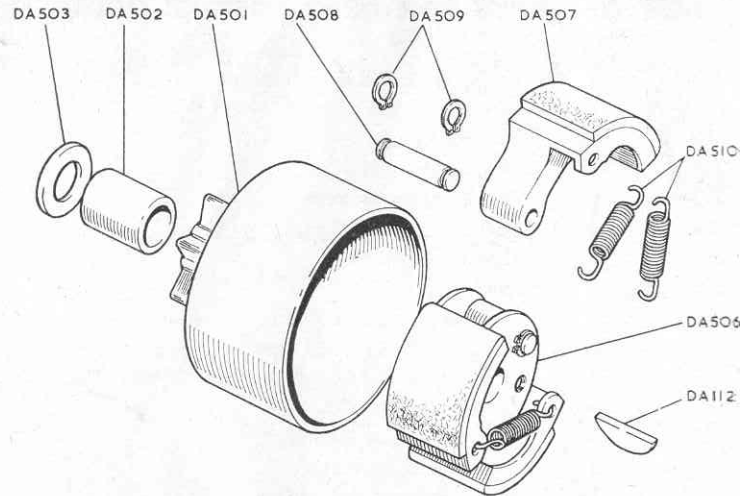


REAR HANDLE GROUP

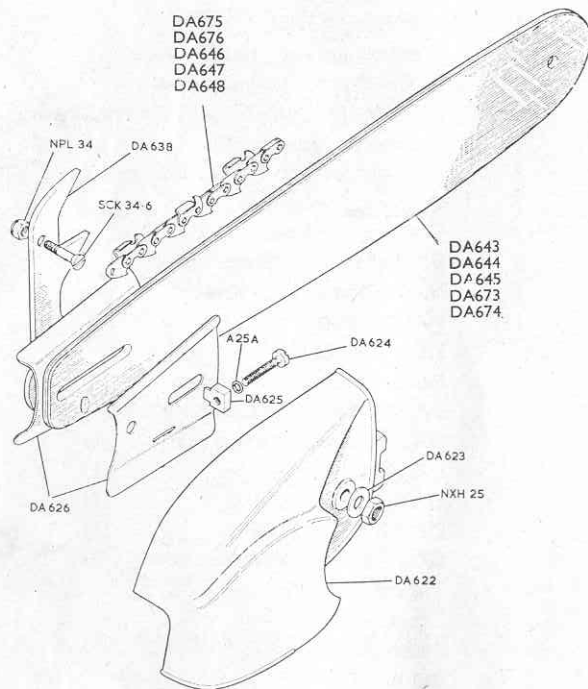
### LIST OF PARTS FOR REAR HANDLE GROUP

Part No.	No. Off	Description
DA. 332	1	Petrol Tank and Rear Handle
DA. 302	1	Sawdust Guard
DA. 303	1	Throttle Lever
DA. 339	1	Fuel Adaptor Flange
DA. 310	1	Fuel Adaptor Gasket
DA. 314	1	Carburettor Fuel Pipe
DA. 315	1	Throttle Lever Pin
DA. 316	1	Plug
DD. 631A	1	Wobble Pipe Filter Head
DA. 329	1	Flexible Fuel Pick Up Pipe
DA. 256	1	Ignition Cut Out Switch c/w On/Off plate DA. 257 and 2 Hexagon Nuts DA. 258
DA. 257	1	On/Off Plate for Switch
DA. 258	2	Locknuts for Switch
DA. 639	1	Switch Protection Cover
DA. 634	1	Throttle Connecting Link
BXH. 34.8	2	Rear Handle Bolts
NX. 34	4	Rear Handle Nuts
WS. 4	2	Washers for Rear Handle Bolts
SFH. 23.5	2	Fuel Adaptor Flange Screws
55735	2	Washers for Fuel Adaptor Flange Screws
DA. 605	1	Gasket for Rear Handle
WSE. 4	2	Washers for Top Handle Fixing
DA. 320	1	Tie Strap for Handle
SFH. 23.4	2	Tie Strap Screws
	3	Washers for Tie Strap Screws
DD. 520	1	Nut for Tie Strap Screw
X. 272	1	Packing Washer
DA. 306		Filler Cap Gasket
DA. 328	1	Petrol Filler Cap Complete
		Consisting of:
		DA.323 Filler Cap Moulding (1)
		DA.324 Retaining Plate (1)
		DA.325 Spring (1)
		DA.326 Valve Rubber (1)
		DA.327 Valve Plate (1)
		SST.52.3 Valve Retaining Screw (3)
DA. 333	1	Throttle Stop Pin
DA. 334	1	Throttle Stop Spring
DA. 335	1	Button Head
DA. 336	1	Rubber Grip

ALL PARTS LISTED ABOVE ARE COMMON TO 110 MANUAL,  
110 AUTOMATIC AND 125 MK. II AUTOMATIC MODELS



CLUTCH GROUP



CUTTER BAR GROUP

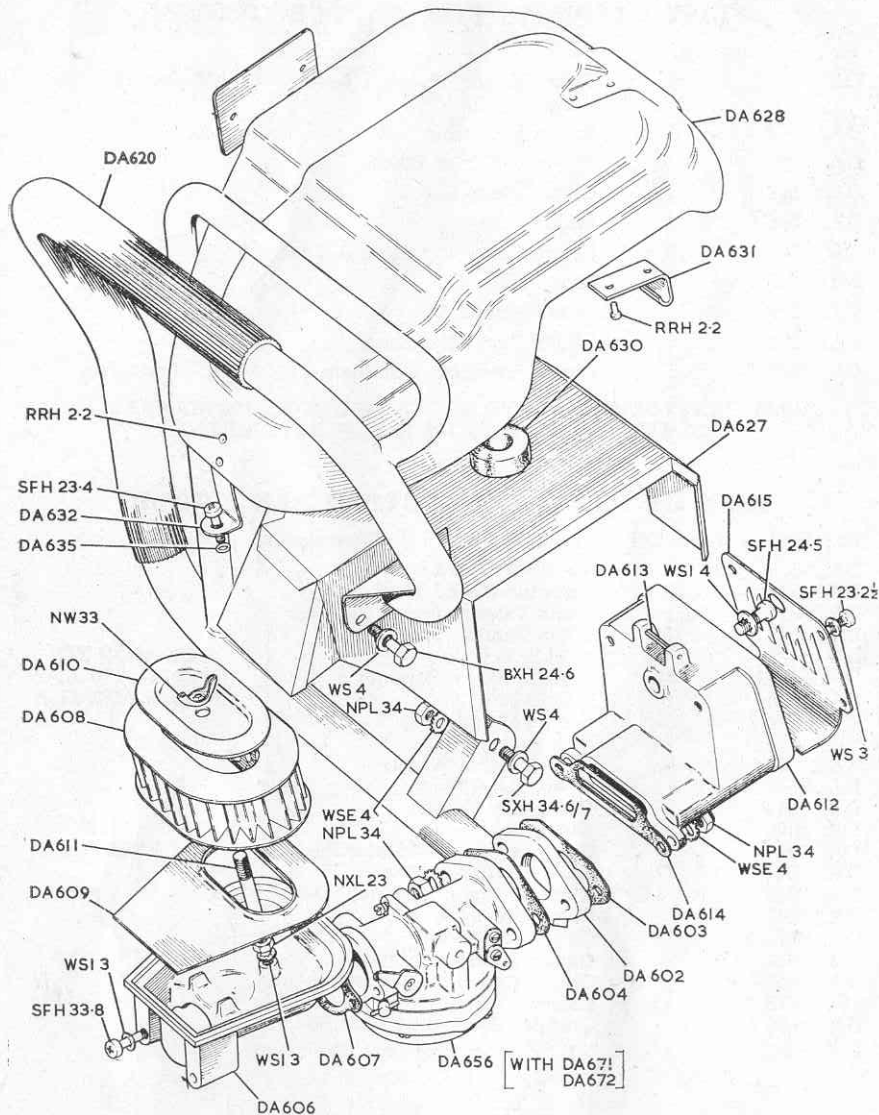
**LIST OF PARTS FOR CLUTCH GROUP**

Part No.	No. Off	Description
DA. 501	1	Sprocket and Housing Assembly, .404-inch Pitch c/w Bearing DA. 502
DA. 502	1	Sprocket Bearing
DA. 503	1	Sprocket Thrust Washer
DA. 112	1	Clutch Drive Key
DA. 506	1	Clutch Driver
DA. 507	3	Clutch Shoes with Linings Attached
DA. 508	3	Shoe Pins
DA. 509	6	Shoe Circlips
DA. 510	3	Clutch Tension Springs
DA. 505	1	Clutch Assembly Complete (DA. 506-510 inclusive)

ALL PARTS LISTED ABOVE ARE COMMON TO 110 MANUAL, 110 AUTOMATIC AND 125 MK. II AUTOMATIC

**LIST OF PARTS FOR CUTTER BAR GROUP**

Part No.	No. Off	Description	
DA. 622	1	Sprocket Guard	} COMMON TO 110 M., 110 A. AND 125 MK. II A
DA. 623	2	Sprocket Guard Washers	
DA. 624	1	Chain Tension Screw	
DA. 625	1	Chain Tension Spigot	
DA. 626	2	Well Side Plate	} '110' SERIES
A. 25A	1	Tension Screw Retainer Ring	
DA. 638	1	Felling Dog	
SCK. 34.6	2	Felling Dog Screws	
NPL. 34	2	Felling Dog Nuts	} '125' SERIES
NXH. 25	2	Sprocket Guard Nuts	
DA. 643	} 1	Cutter Bar 16-inch	
DA. 644		Cutter Bar 20-inch	
DA. 645		Cutter Bar 24-inch	
DA. 646	} 1	Chipper Chain .404-inch Pitch, 16-inch	
DA. 647		Chipper Chain .404-inch Pitch, 20-inch	
DA. 648		Chipper Chain .404-inch Pitch, 24-inch	
DA. 645	} 1	Cutter Bar 24-inch	
DA. 673		Cutter Bar 28-inch	
DA. 674		Cutter Bar 32-inch	
DA. 648	} 1	Chipper Chain .404 Pitch 24-inch	
DA. 675		Chipper Chain .404 Pitch 28-inch	
DA. 676		Chipper Chain .404 Pitch 32-inch	
DA. 683	1	R.H. Felling Dog (not illustrated)—125 only	



SILENCER, AIR FILTER AND COWLING GROUP

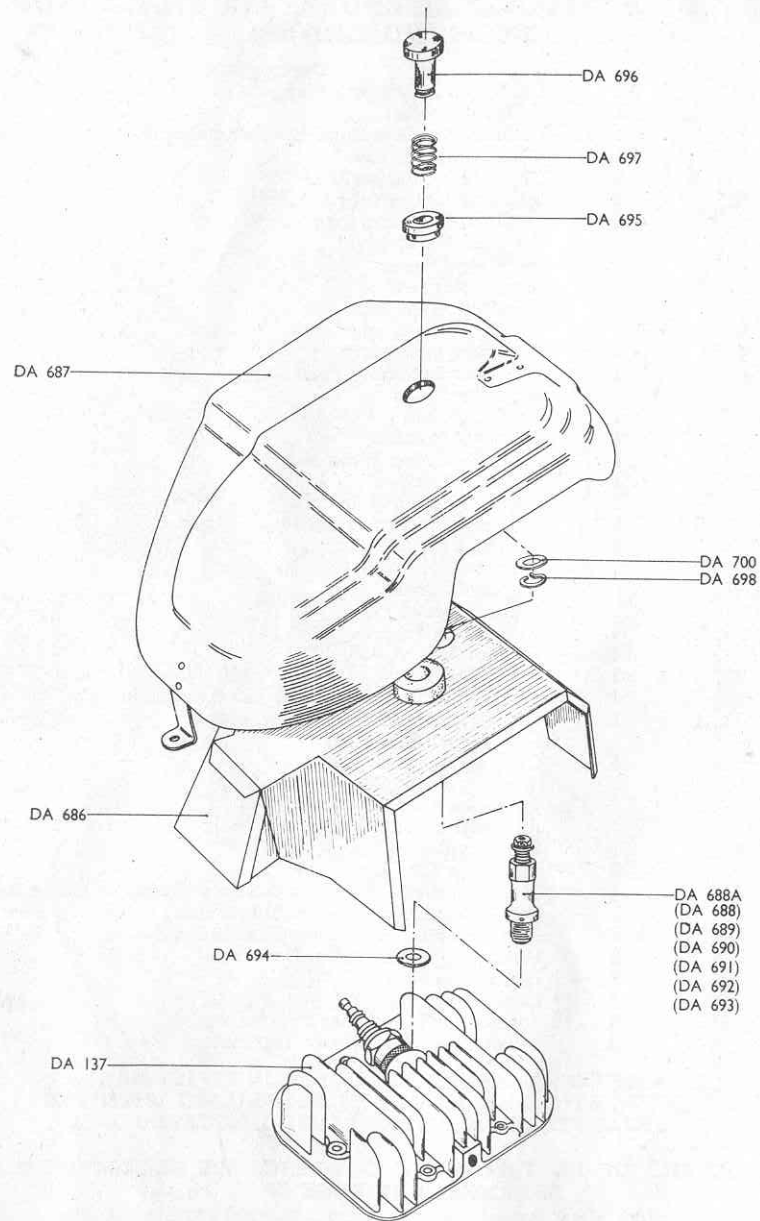
**LIST OF PARTS FOR SILENCER, AIR FILTER AND COWLING GROUP**

Part No.	No. Off	Description
DA. 602	1	Carburettor Adaptor Flange
DA. 603	1	Adaptor Gasket
DA. 656	1	Carburettor Complete. See Separate List for Spare Parts
DA. 604	1	Carburettor Gasket
NPL. 34	2	Carburettor Fixing Nuts
DA. 671	2	Insulator Sleeves for DA.656
DA. 672	2	Insulator Washers for DA.656
DA. 606	1	Air Inlet Manifold
DA. 607	1	Manifold Gasket
SFH. 33.8	2	Manifold Screw
WSI. 3	2	Manifold Washers
DA. 608	1	Air Filter Element
DA. 609	1	Air Filter Base Plate
DA. 610	1	Air Filter Retaining Plate
DA. 611	1	Filter Stud
NXL. 23	1	Stud Lock Nut
WSI. 3	1	Lock Nut Washer
NW. 33	1	Filter Retaining Wing Nut
DA. 612	1	Silencer Body
NPL. 34	2	Silencer Fixing Nuts
SFH. 24.5	1	Silencer Top Fixing Screw
WSE. 4	2	Washers for DA.612
WS. 4	1	Washers for DA.612
DA. 614	1	Silencer Gasket
DA. 615	1	Silencer Baffle Plate
SFH. 23.2 1/2	4	Baffle Plate Screws
WS. 3	4	Washer for DA.615
DA. 627	1	Inner Cowling
DA. 628	1	Outer Cowling
SFH. 23.4	1	Outer Cowling Rear Fixing Screw
DA. 635	1	Screw Retaining Ring
DA. 630	2	Cowling Support Pads
DA. 631	1	Cowling Front Clip
RRH. 2.2	2	Rivets for DA.631
DA. 613	1	Anchor Pin for DA.631
DA. 632	1	Cowling Rear Clip
RRH. 2.2	2	Rivets for DA.632
DA. 684	1	Front Handlebar (fitted with Safety Guard for Gt. Britain)
SXH. 34.6	1	Handlebar Lower Screw (Drive Side)
SXH. 34.7	1	Handlebar Lower Screw (Starter Side)
WS. 4	2	Washers for Handlebar Screws
NPL. 34	2	Handlebar Nuts
WSE. 4	2	Handlebar Washers
BXH. 24.6	2	Screws for Handlebar Top Fixing
WS. 4	2	Washers for Handlebar Top Fixing

110 Manual  
and 110 Automatic only

**ALL PARTS LISTED ABOVE ARE COMMON TO 110 MANUAL, 110 AUTOMATIC AND 125 MK. II AUTOMATIC WITH THE EXCEPTION OF THOSE PARTS INDICATED**

**FOR DETAILS OF 125 AUTOMATIC COWLINGS SEE DECOMPRESSION ARRANGEMENT PAGE 26**



DECOMPRESSION ARRANGEMENT  
DANARM '125' CHAIN SAW

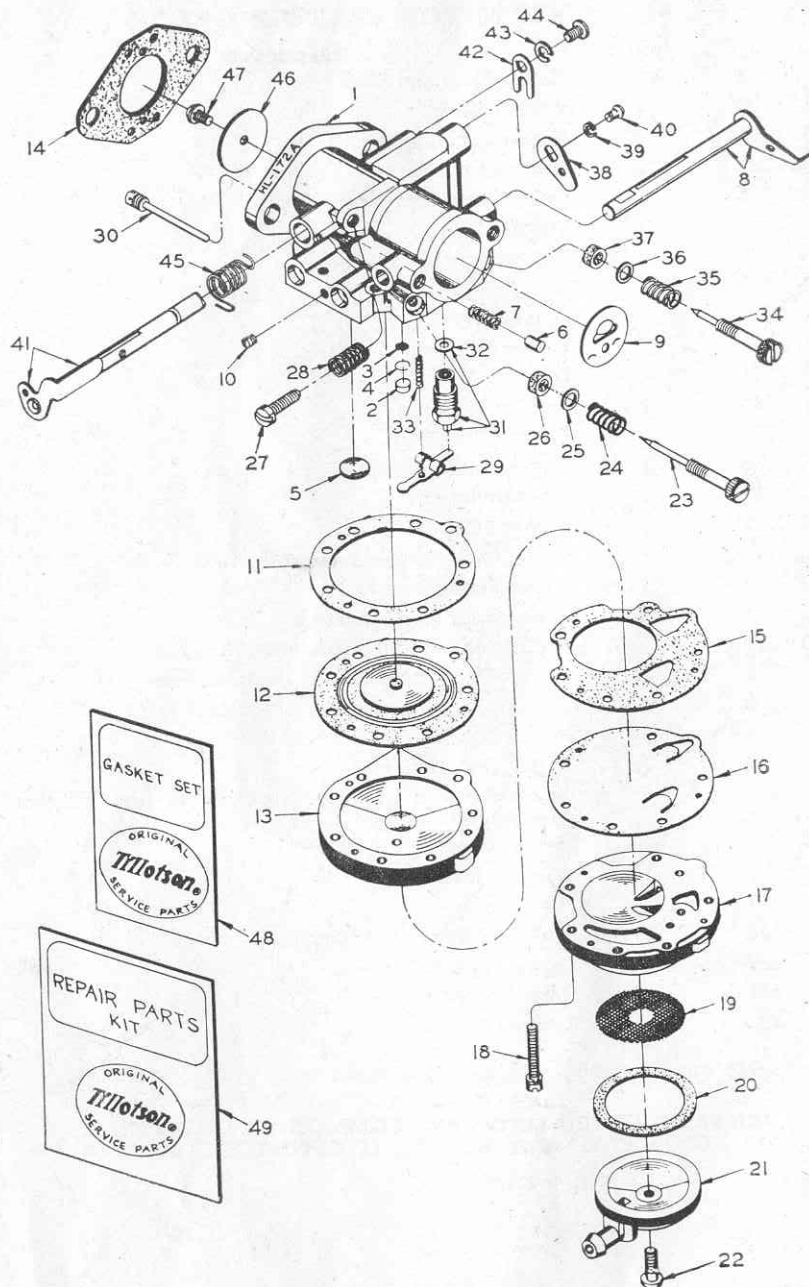
### LIST OF PARTS DECOMPRESSION ARRANGEMENT

Part No.	No. Off	Description	
DA. 687	1	Outer Cowling	} DA. 687A Outer Cowling Assembly
DA. 696	1	Push Button	
DA. 697	1	Return Spring	
DA. 695	1	Guide Bush	
DA. 698	1	Retaining Clip	
DA. 700	1	Washer	
DA. 686	1	Inner Cowling	
DA. 688 A	1	Decompression Valve Assembly	
DA. 694	1	Copper Gasket	
DA. 137	1	Cylinder Head	

THE PARTS LISTED ABOVE ARE COMMON TO 125 MK. II  
AUTOMATIC MODELS ONLY







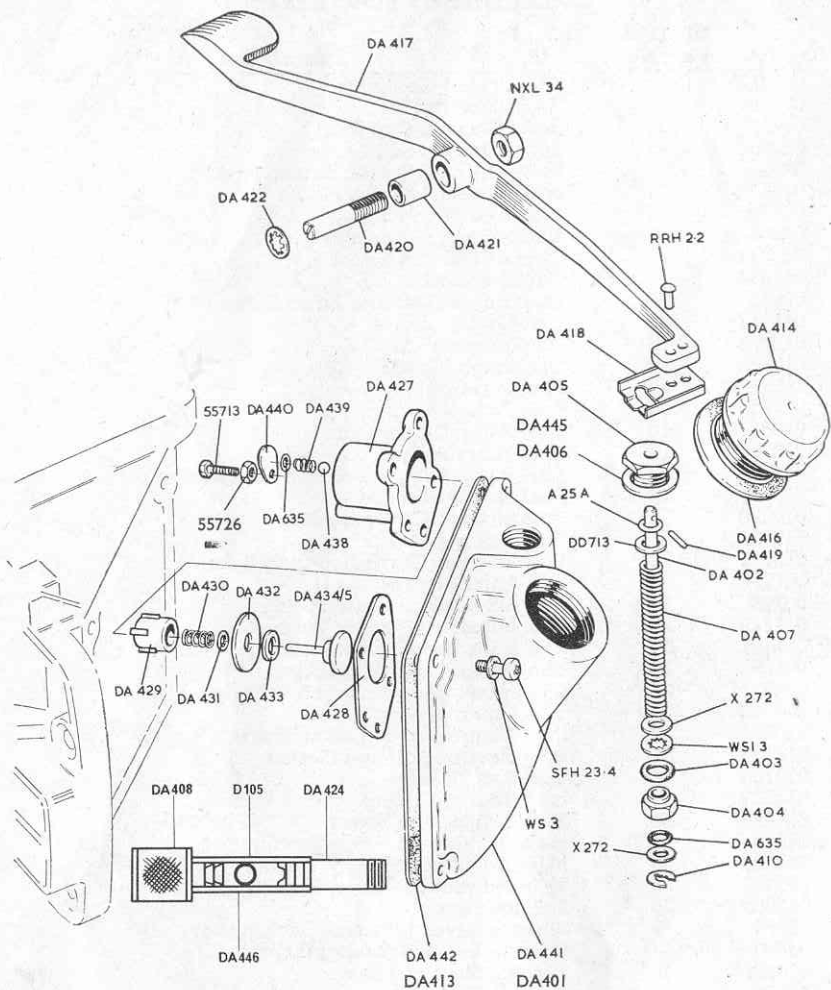
CARBURETTOR GROUP

**CARBURETTOR LIST**

Ref. No.	HL-172B Part No.	Description
DA.656		Carburettor Complete
014087	1	Body (Service)
012347	2	*Body Channel Cup Plug
012884	3	Body Channel Screen
012345	4	Body Channel Screen Retaining Ring
02531	5	*Body Channel Welch Plug
05454	6	Choke Friction Pin
08805	7	Choke Friction Spring
011878	8	Choke Shaft and Lever
011883	9	Choke Shutter
02232	10	Diaphragm Chamber Drain Screw
012473	11	Diaphragm Gasket
012475	12	*Diaphragm
010526	13	Diaphragm Cover
DA.604	14	Flange Gasket
012930	15	Fuel Pump Gasket
010531T	16	*Fuel Pump Diaphragm
010525	17	Fuel Pump Body
010098	18	Fuel Pump Body Screw and Lockwasher (6)
010530	19	*Fuel Strainer Screen
010529	20	Fuel Strainer Cover Gasket
010527	21	Fuel Strainer Cover
010571	22	*Fuel Strainer Cover Retaining Screw
011716	23	*Idle Adjustment Screw
08793	24	*Idle Adjustment Screw Spring
011428	25	Idle Adjustment Screw Washer
011401	26	Idle Adjustment Screw Packing
05095	27	*Idle Speed Regulating Screw
0788	28	*Idle Speed Regulating Screw Spring
014020	29	*Inlet Control Lever
010581	30	*Inlet Control Lever Pinion Screw
014035	31	*Inlet Needle, Seat and Gasket
010165	32	Inlet Seat Gasket
011503	33	*Inlet Tension Spring
011494	34	*Main Adjustment Screw
08793	35	*Main Adjustment Screw Spring
011428	36	Main Adjustment Screw Washer
011401	37	Main Adjustment Screw Packing
012905	38	Throttle Lever
06396	39	*Throttle Lever Retaining Lockwasher
06393	40	*Throttle Lever Retaining Screw
013391	41	Throttle Shaft and Lever
09678	42	Throttle Shaft Clip
0992	43	Throttle Shaft Clip Lockwasher
01974	44	Throttle Shaft Clip Retaining Screw
010775	45	*Throttle Shaft Return Spring
012089	46	Throttle Shutter
08942	47	*Throttle Shutter Screw and Lockwasher
GS.155	48	*Gasket and Packing Set
RK-706	49	Repair Parts Kit

(\* indicates contents of Repair Parts Kit

**ALL PARTS LISTED ABOVE ARE COMMON TO 110 MANUAL, 110 AUTOMATIC AND 125 MK. II AUTOMATIC MODEL**



OIL PUMP GROUP

**LIST OF PARTS FOR MANUAL, AND MANUAL /  
AUTOMATIC OIL PUMP COMBINED SYSTEM**

Part No.	No. Off	Description
DA. 402	1	Oil Pump Spindle
DA. 403	1	Plunger Seal
DA. 404	1	Plunger Bush
DA. 635	1	Bush Seal Ring
WSI. 3	1	Plunger Washer
DA. 405	1	Oil Pump Gland
DD. 713	1	Gland Washer
A.25.A	1	Gland Seal Ring
DA. 407	1	Pump Return Spring
X. 272	2	Spring Support Washer
DA. 410	1	Spindle and Clip
DA. 408	1	Filter Body with Gauze
DA. 414	1	Oil Filler Cap Complete with Valve Ball D.105
DA. 416	1	Oil Filler Cap Gasket
SFH. 23.4	4	Screws For Oil Pump Body/Tank Cover
WS. 3	4	Washers For Oil Pump Body/Tank Cover
DA. 417	1	Oil Pump Lever
DA. 418	1	Oil Lever Shoe
DA. 419	1	Pump Operating Pin
RRH. 2.2	2	Rivets For DA. 418
DA. 420	1	Lever Pivot Pin
DA. 421	1	Pivot Bearing
DA. 422	1	Lever Retaining Washer
NXL. 34	1	Pivot Pin Lock Nut
DA. 424	1	Pump Body/Cover Nipple

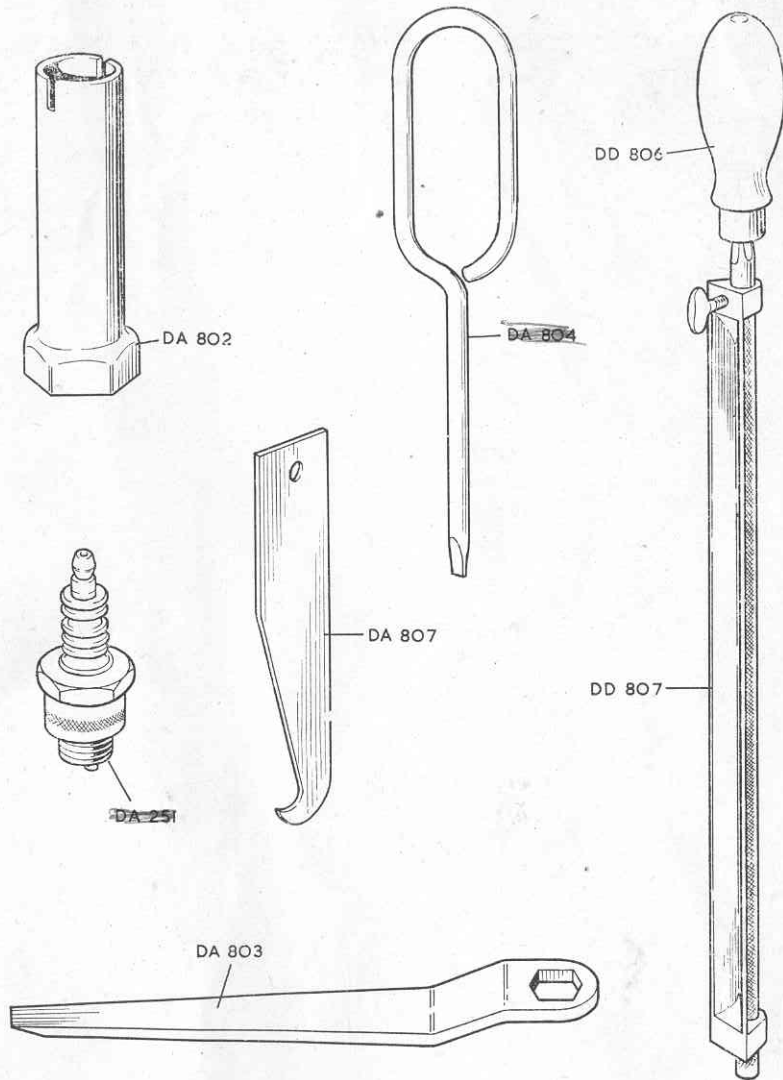
**ALL PARTS LISTED ABOVE ARE COMMON TO 110 MANUAL,  
110 AUTOMATIC AND 125 MK. II AUTOMATIC**

**Additional Parts Required for 110 MANUAL MODEL ONLY**

DA. 401	1	Oil Pump Body/Tank Cover	
DA. 406	1	Gland Joint	
DA. 413	1	Pump Body Gasket	
DA. 412	1	Oil Pick Up Pipe	} Not Illustrated
DD. 725	2	'O' Clips	
DA. 425	1	Valve Ball	
DA. 426	1	Valve Spring	

**ADDITIONAL PARTS REQUIRED FOR 110 AUTOMATIC  
AND 125 Mk II AUTOMATIC MODELS ONLY**

Part No.	No. Off	Description
DA. 441	1	Oil Pump Body/Tank Cover c/w Plugs DA. 437 (2) DA. 444 (1)
DA. 427	1	Auto Pump Body with Pump Sleeve DA. 436 and Plugs DA. 437 (2)
DA. 428	1	Gasket for DA. 427
55711	3	Screws for DA. 427
DA. 429	1	Oil Adjustment Sleeve
DA. 430	1	Plunger Return Spring
DA. 431	1	'O' Ring-Plunger Piston
DA. 432	1	Piston Plate
DA. 433	1	Sealing Washer
DA. 434	1	Plunger Bush c/w Plunger Pin DA. 435
DA. 438	1	Valve Ball
DA. 439	1	Outlet Valve Spring
DA. 440	1	Cover Plate
DA. 635	1	'O' Ring Seal for DA. 440
55713	1	Stroke Adjusting Screw
55726	1	Lock Nut for 55713
DA. 443	1	Plug Screw (Not Illustrated)
DA. 445	1	'O' Ring
DA. 446	1	Oil Pick Up Pipe
D. 105	1	Valve Ball



**TOOL LIST**

Part No.	No. Off	Description
DA. 802	1	Plug Spanner
DA. 803	1	Combination Tool
<del>DA. 804</del>	1	<del>Screwdriver</del>
DA. 806	1	Toolbag
DA. 807	1	Groove Cleaner for Cutter Bar
DA. 809	1	Instruction Book
DD. 806	1	File $\frac{7}{32}$ -inch diameter
DD. 807	1	File Holder $\frac{7}{32}$ -inch
<del>DA. 251</del>	1	<del>Sparking Plug (Champion XJ8)</del>