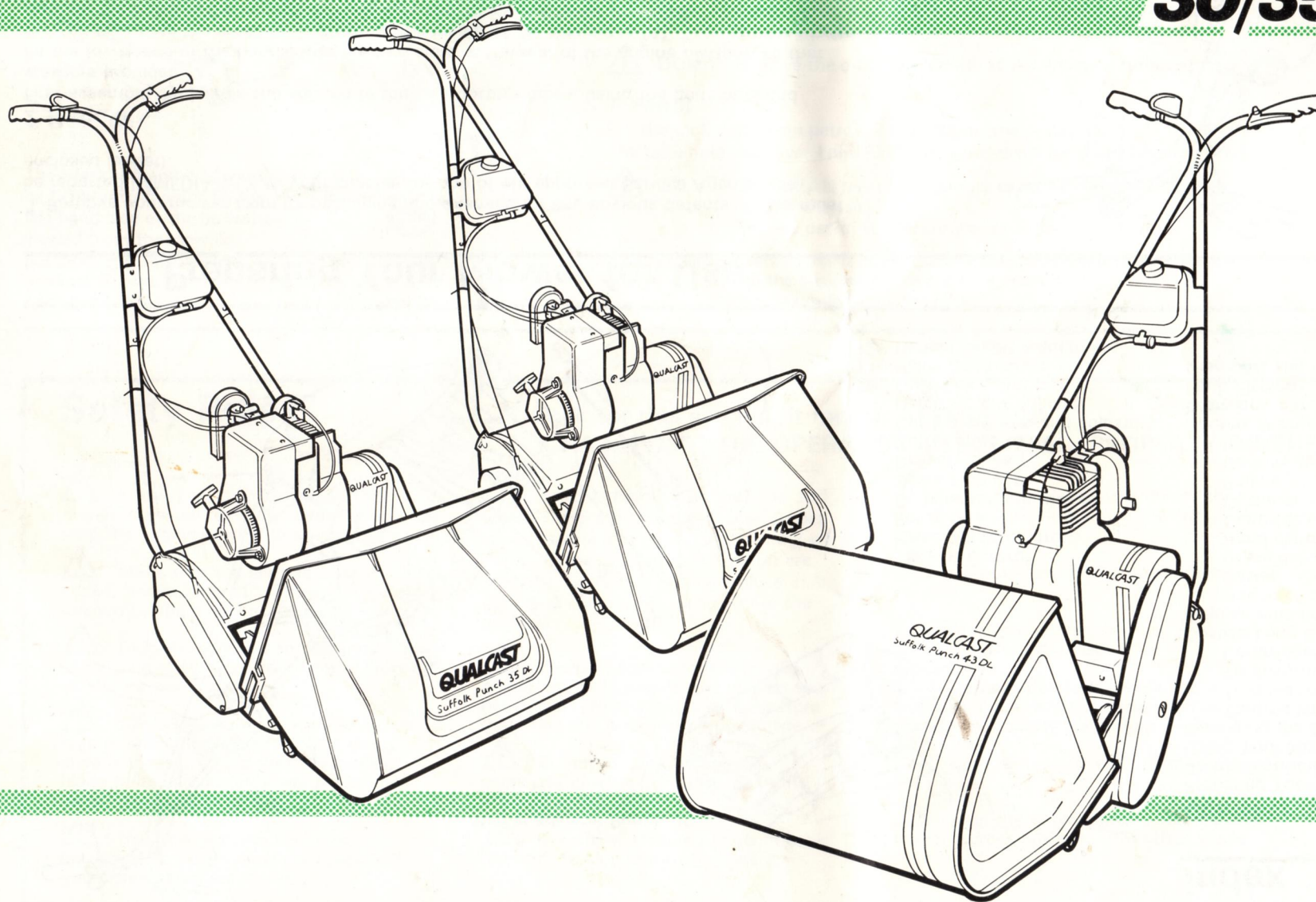


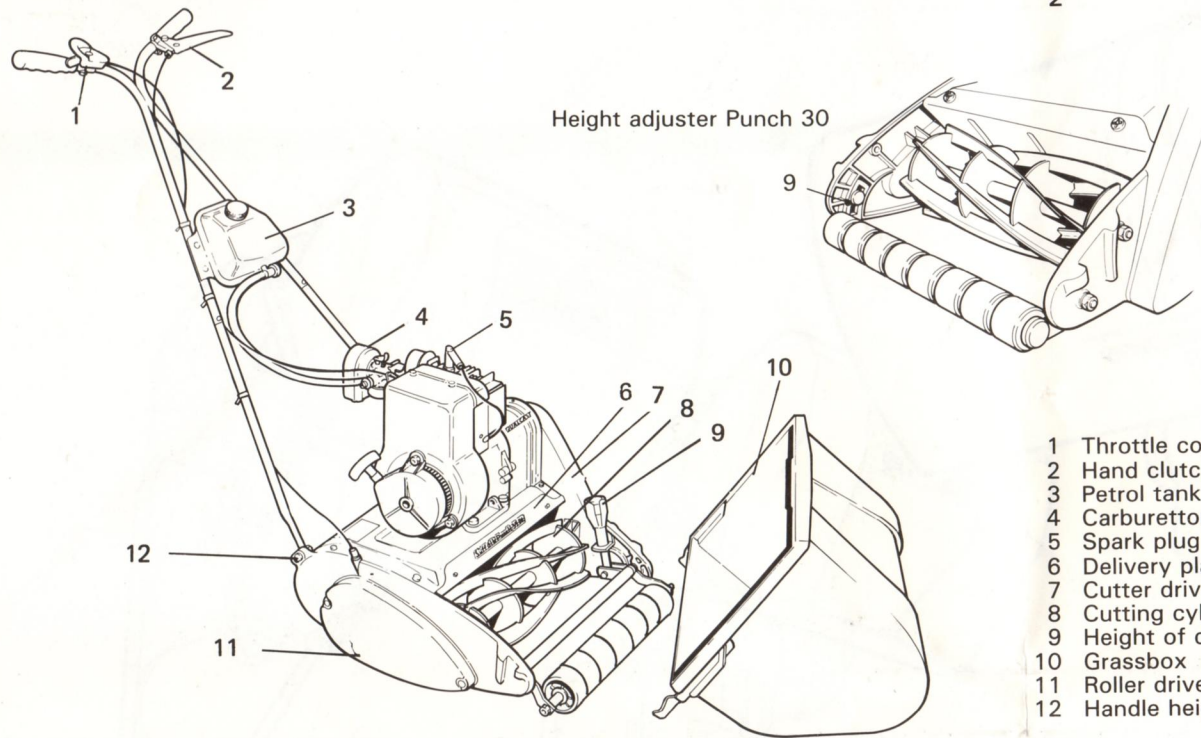
# QUALCAST

## Suffolk Punch

### 30/35DL/43DL



## Operating Instructions



- 1 Throttle control
- 2 Hand clutch control
- 3 Petrol tank
- 4 Carburettor and choke
- 5 Spark plug cap
- 6 Delivery plate
- 7 Cutter drive cover
- 8 Cutting cylinder and adjusters
- 9 Height of cut adjuster
- 10 Grassbox
- 11 Roller drive cover
- 12 Handle height adjustment

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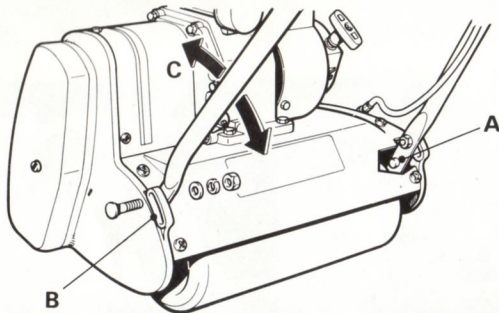
## Preparing Your Mower for Use

**1** Remove your mower from its packaging and examine for any obvious defects. These must be reported IMMEDIATELY to your supplier, or one of our approved Service Agents (see enclosed leaflet).

### 2 Handle

First assemble the handle top section to the two bottom tubes, using the bolts nuts and washers provided.

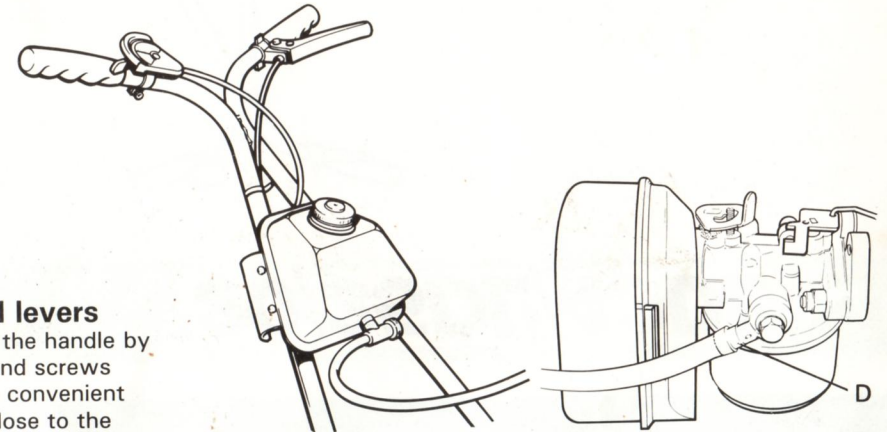
Fit the lower end of the handle into the two slots at the rear of the engine platform so that they engage onto the small projections on the inside of the sideplates (A). Then pass the bolts through the holes in the handle (B). The nuts should always be on the inside.



Before tightening, set the handle to the required height to suit your operating requirements (C).

### 3 Control levers

Fit these to the handle by the straps and screws provided, in convenient positions, close to the handle grips. The throttle control lever is normally fitted on the right hand side and the clutch lever is on the left. The cables should be arranged in smooth curves and fixed by the cable clips.

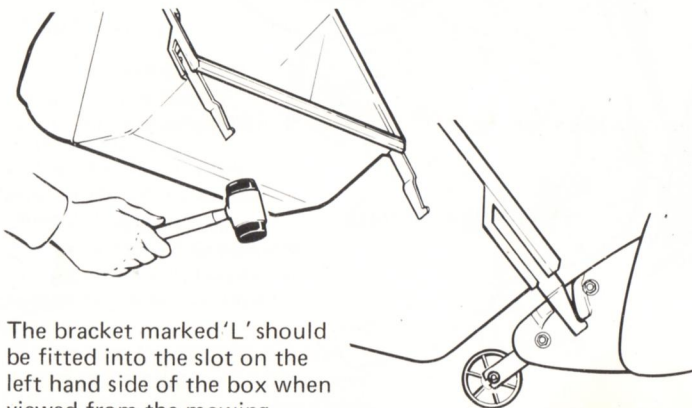


### 4 Petrol Tank

This should be fitted over the handles and pressed down so that it wedges firmly in position with the filler cap at the top. The petrol pipe should be pushed firmly over the inlet pipe (D) on the carburettor, so that petrol can flow from the tank to the carburettor, when the petrol tap is pulled open, without leaking.

## 5 Assembly of Brackets to the Grassbox (Punch 30 and 35 DL only)

Before use the attachment brackets must be assembled to the grassbox. These brackets are packed with the petrol tank and should be tapped into the slots in the grassbox, using a wooden mallet or something similar since a tight fit is necessary.





The bracket marked 'L' should be fitted into the slot on the left hand side of the box when viewed from the mowing position, and the bracket marked 'R' goes into the right hand side.

When fitted correctly, the letters 'L' and 'R' on the brackets should be visible.



## 6 Engine

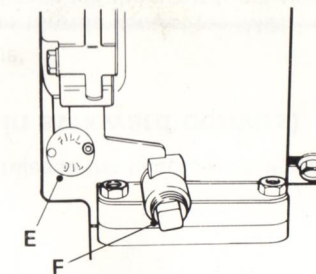
Remove the oil filler plug (E) and put in 0.28 litres (½ pint) of good quality multi-grade 20/50 or SAE 30 oil to just below the filler hole lip. Drain the oil from the sump after the first 5 hours mowing by removing the drain plug (F). Tilt the mower to help drain the oil. This is best done when the engine is warm. Refill with fresh oil. Thereafter change the oil after every 30 hours of use (or once a year whichever is the sooner).

-  **DO** Turn the engine slowly by hand when filling oil to expel air. Keep the area round the filler hole clean. Check the oil level before each mowing and top up if necessary. Ensure that the engine is level when filling with oil.
-  **DON'T** Remove the oil filler plug whilst the engine is running.

## 7 Petrol

Fill the tank with clean petrol (2 star - 92 octane preferred). The tank holds just over 1 pint (0.65 litres) sufficient for about 1 hours work.

-  **DO** Use CLEAN petrol (preferably use a funnel with a filter in it to fill the tank). Replace petrol cap securely after filling.
-  **DON'T** Use 2 stroke fuel, high octane petrol, or petrol mixed with oil. Fill the tank while the engine is running. Smoke while filling the tank.



## 8 Height of Cut

Adjust as necessary (see page 5).

## 9 Cutter Blade Adjustment

Please check the cutting action of your mower before you first use it. All new mowers are checked before despatch from our factory, but occasionally they go out of adjustment during transit. To reset the cutters see "Cutter Adjustment" on page 6. Poorly set cutters will give a rough, ragged looking finish.

## 10 Grassbox





















Place on mower if required.

## Safety Rules



Look for this symbol. It means ATTENTION!

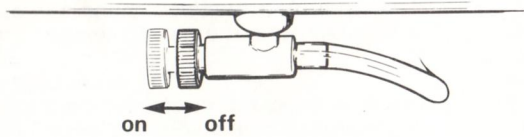
A HAZARD TO THE OPERATOR, BYSTANDER, PROPERTY OR THE MOWER MAY EXIST.

-  Know your controls. Read the owner's manual carefully. Learn how to stop the engine quickly in an emergency.
-  Make sure the lawn is clear of sticks, bones, wire etc. Those could be thrown by the blades.
-  Stop the engine and disconnect the spark plug cap before checking or working on the mower.
-  Always be sure the mower is in a safe operating condition. Before using always inspect to see that the blades, blade bolts and cutter assembly are not worn, damaged or loose.
-  Use only genuine Qualcast replacement parts which are made and guaranteed for your mower.
-  Petrol is highly flammable so add fuel BEFORE starting the engine. Avoid spilling petrol and do not fill the tank while the engine is running or while you are smoking. Store fuel in a cool place in a container specifically designed for the purpose.
-  If your machine strikes a solid object, stop the engine and inspect the mechanism. Repair any damage before restarting and operating the machine.
-  Do not mow whilst people, especially children, or pets, are in the mowing area.
-  Beware of trapping fingers etc., between fixed and moving blades.
-  Never use the mower unless the guards provided by the manufacturer are in position.
-  Do not mow barefoot or in open sandals.
-  Start the engine carefully with feet well away from the blades.
-  Do not operate the engine in a confined space where exhaust fumes (carbon monoxide) can collect.
-  Stop the engine whenever you leave the mower.
-  Stop the engine before pushing the mower across surfaces other than grass.
-  Do not allow children or people unfamiliar with these instructions to use the mower.
-  On slopes or wet grass, be extra careful of your footing.
-  Never cut grass by pulling the mower towards you.
-  Do not overspeed the engine or alter the governor settings. Excessive speed is dangerous and shortens the mower's life.
-  Never pick up or carry a mower when it is operating.

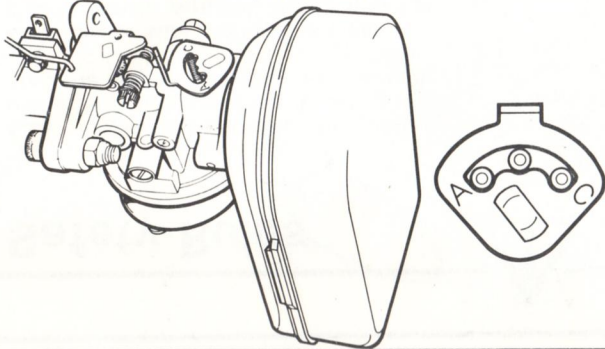
# Using Your Mower

## Starting the Engine from Cold

1 Check the spark plug cap is firmly in place. Open the petrol tap by pulling the red knob.

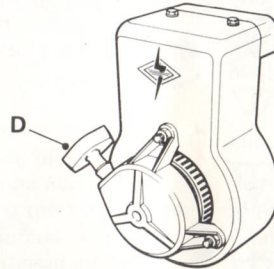


2 Close the choke lever to position marked 'C'.



3 Open the throttle lever to about halfway (G).

4 Pull the recoil starter (D) with a smooth action, not a jerky snatch. After each pull let the recoil go back in under control.



5 When the engine starts open the choke to midway between the closed position 'C' and the fully open position 'A'. When the engine is warm fully open the choke to position 'A'.

**NOTE:** It is better to under-choke the engine rather than over choke and flood it.

## Starting the Engine from Hot

Start in the same way as from cold but set the choke at the open position 'A'.

If the engine will not start carry out the checks listed under Fault Finding (page 9)

## To Stop the Engine

Move the throttle lever firmly to the stop position (E).

**NOTE:** If the engine does not stop with the throttle firmly in the stop position (E) adjust the throttle control (see adjustments page 7)

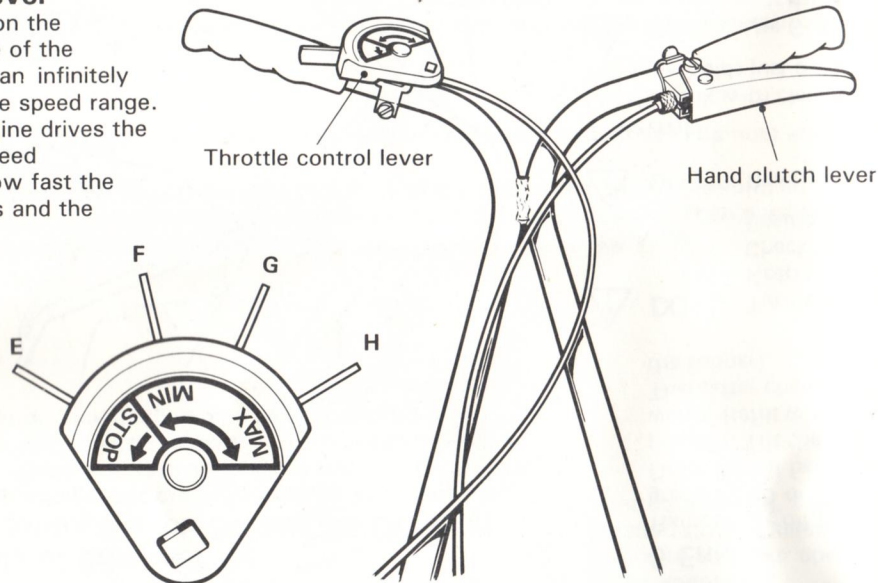


In an emergency, if the engine cannot be stopped close the choke (position 'C') or remove the spark plug cap.

# Operating the Mower Controls

## Throttle Lever

This control (on the righthand side of the handle) gives an infinitely variable engine speed range. When the engine drives the mower, its speed determines how fast the mower travels and the cutters turn.



## Centrifugal Clutch

A centrifugal clutch is fitted to the drive which automatically engages when the engine speed is increased from idling. Therefore, in order to engage the clutch, move the throttle lever towards the "MAX" position (H) and conversely, to disengage the clutch, move the throttle lever into the "MIN" position (F).

## To Drive the Cutters and the Rear Roller

Increase the engine speed by moving the throttle towards "MAX" (H) so that the centrifugal clutch engages and the cutters turn, then pull the hand clutch lever (on the lefthand side of the handle) to make the mower propel itself along. Adjust the engine speed to suit your pace.



To stop the mower moving, release the hand clutch lever.

## To Drive the Cutters only (e.g. when mowing in awkward corners)

Simply increase the engine speed until the centrifugal clutch engages and the cutters turn.



To stop the cutters move the throttle control to "MIN" (F) to slow down the engine and disengage the centrifugal clutch.

# Cutting Long Grass

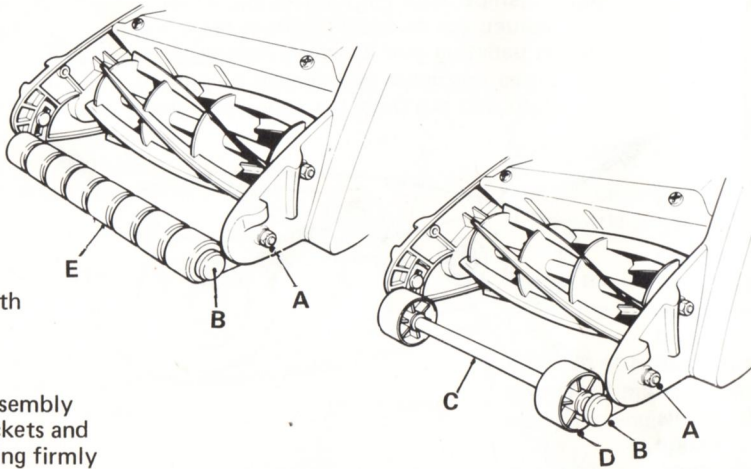
Your machine is fitted with a full width front roller which gives a more satisfactory result when cutting normal lawns. For coarse, long types of grass, a side roller kit is provided. To fit this:-

## Punch 30

1 Undo nuts (A) and remove roller height adjustment brackets (B) and roller spindle assembly.

2 Remove the front rollers (E) and replace with the side rollers (D) and spacing tube (C).

3 Replace the spindle assembly in the roller adjuster brackets and refit in the mower, securing firmly with nuts (A).

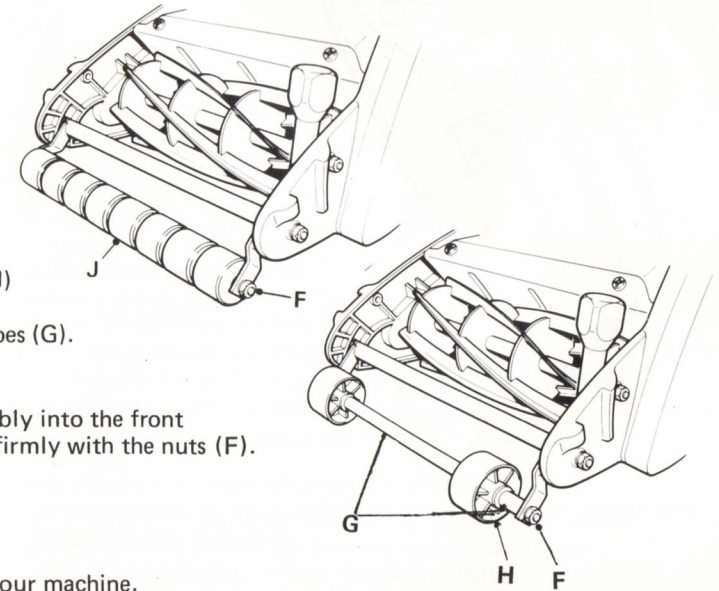


## Punch 35DL/43DL

1 Undo nuts (F) and remove the roller spindle assembly.

2 Remove the front rollers (J) and replace with the side rollers (H) and the spacing tubes (G).

3 Fit the spindle assembly into the front roller bracket, securing firmly with the nuts (F).



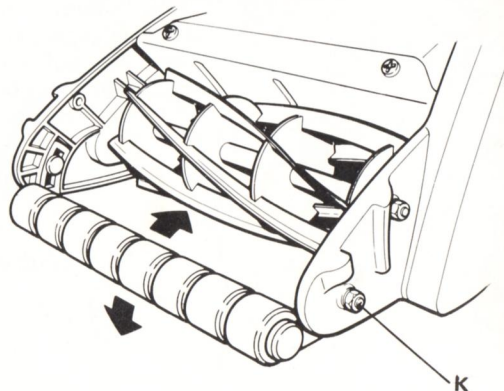
When your mower is fitted with side rollers do not try and cut too low. Always make sure that there is clearance between the bottom of the grassbox and the rollers. Failure to do so will cause damage to your machine.

# Adjustments and Maintenance

**!** Never make adjustments to the mower (except for parts of the engine) with the engine running. Remove the spark plug cap to ensure the engine cannot be started inadvertently.

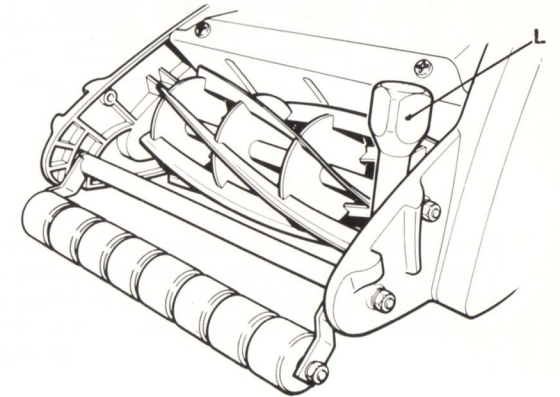
## Height of Cut Punch 30

To change the height of cut loosen the nuts (K) on either side of the machine and raise or lower the rollers as required. Ensure the adjustment is even on each side before tightening the nuts. Care should be taken to avoid lowering the machine so that the bottom blade touches the ground, resulting in drag marks, or even scalping.




## Height of Cut Punch 35DL & 43DL

To change the height of cut rotate the adjuster knob (L) at the lefthand side of the mower. Clockwise rotation increases the height of cut, and vice versa. Care should be taken, as it is possible to lower the machine so that the bottom blade touches the ground, resulting in drag marks or even scalping.



**Handle Height** refer to page 2

# Adjustments and Maintenance

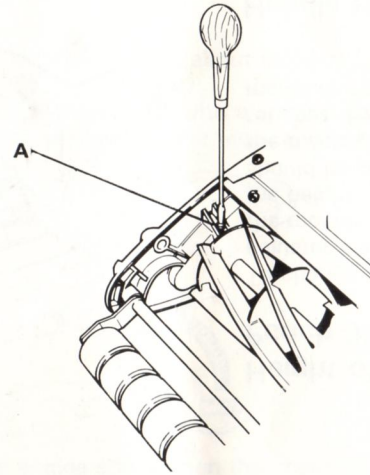
 Remove spark plug cap.


## Cutter


Adjust the cutters if the mower does not cut the grass cleanly.

To adjust the cutters:

- 1 Slacken the cutter drive tensioner (see cutterdrive below).
- 2 Adjust the cutting cylinder closer to the bottom blade by turning the screws (A) clockwise on each side of the mower a little at a time. The blades are correctly adjusted when the cutting cylinder **lightly** brushes the bottom blade evenly across its full width as the cylinder is turned.  
(The cutters work like a pair of shears; well adjusted cutters will cut a piece of good quality paper).
- 3 Readjust the cutter drive tension (see cutterdrive below) and replace the spark plug cap.

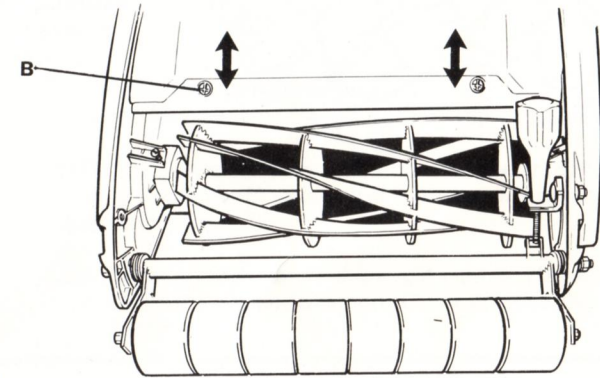


 **TAKE CARE WHEN TURNING THE CYLINDER – THE BLADES CAN BE SHARP.**

 **DO NOT ADJUST THE CYLINDER TOO TIGHTLY TO THE BOTTOM BLADE** as this may damage the cutter drive and bearings.

## Grass Delivery

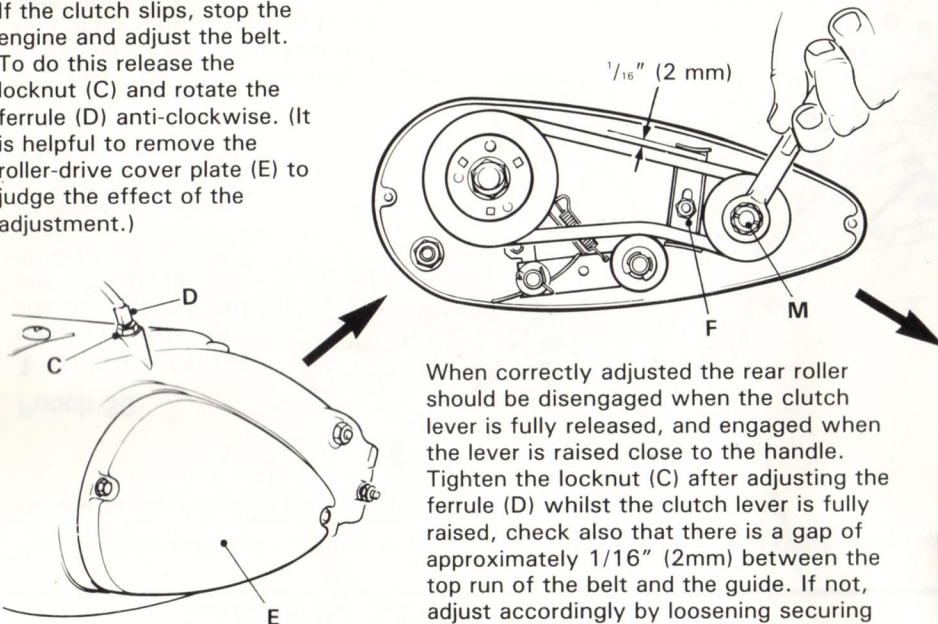
If grass cuttings are not being thrown properly into the grassbox, the angle of the delivery plate may be altered by loosening the two screws (B), sliding the delivery plate forward or backward a little as necessary, then tightening the screws again.



## Hand Clutch

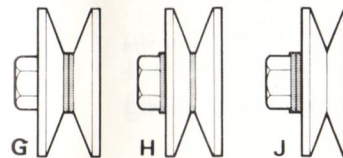
If the clutch slips, stop the engine and adjust the belt.

To do this release the locknut (C) and rotate the ferrule (D) anti-clockwise. (It is helpful to remove the roller-drive cover plate (E) to judge the effect of the adjustment.)



When correctly adjusted the rear roller should be disengaged when the clutch lever is fully released, and engaged when the lever is raised close to the handle. Tighten the locknut (C) after adjusting the ferrule (D) whilst the clutch lever is fully raised, check also that there is a gap of approximately 1/16" (2mm) between the top run of the belt and the guide. If not, adjust accordingly by loosening securing nut (F).

To obtain further adjustment when the above range of adjustment is exhausted, two shims are provided. These can be either in the centre of the small pulley (G) or on the outside (J) or one in each position (H). Undo the large securing nut (M) and remove one of the shims from the centre to the outside of the pulley. Replace the large nut securely, tighten the adjustment locknut and replace the side cover.



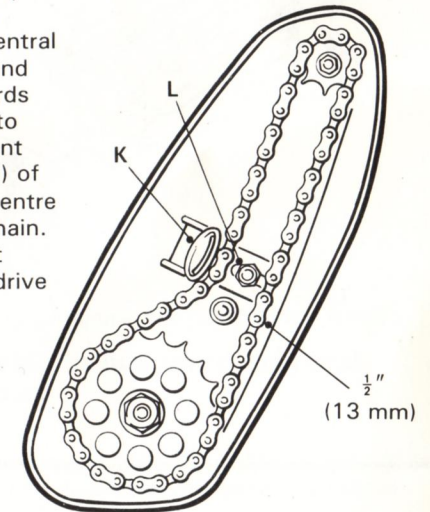
**NOTE:** When fitting a new belt (which will be shorter than the old stretched belt) it will be necessary to remove one or two shims, as required, from the **OUTSIDE** of the smaller pulley (J) and add it or them to the centre of the pulley as shown (G or H).

## Centrifugal Clutch

The centrifugal clutch is adjusted correctly in the factory and will not require attention between servicing periods.

## Cutterdrive

To adjust the chain firstly remove the cutter drive cover by undoing the central screw. Loosen nut (L) and move adjuster (K) inwards or outwards according to the need. The adjustment should allow 1/2" (13mm) of free movement at the centre of the rear run of the chain. Tighten the adjuster nut (L) and refit the cutter drive cover.



# Adjustments

## Engine, Carburettor and Ignition

The only adjustments to be made on the engine are cleaning the air filter, adjusting the idling speed and, on rare occasions, the cut out and the idling jet setting on the carburettor. These are set before the engine leaves the factory but some slight adjustments may be needed to suit the usage. The engine is fitted with a **breakerless electronic ignition system** so no electrical adjustments are needed other than cleaning and setting the spark plug. In the unlikely event of ignition failure contact your Service Agent.

## Idling Speed

Run the engine until it is thoroughly warmed up.

Adjust the idling speed by turning the throttle stop screw (A) clockwise to increase the speed and anti-clockwise to decrease it. Correct setting is when the engine just ticks over gently at minimum throttle setting.

## Cut Out

The engine should cut out when the throttle control lever is returned to the STOP position. If this does not happen loosen the locknut and adjust the throttle cable adjuster (B) until the engine cuts out. Retighten the lock nut.

## Idling Jet

Run the engine until it is thoroughly warm, then set the throttle control to slow speed.

Adjust the idling jet screw (C) anti-clockwise to enrich the mixture and clockwise to weaken it.

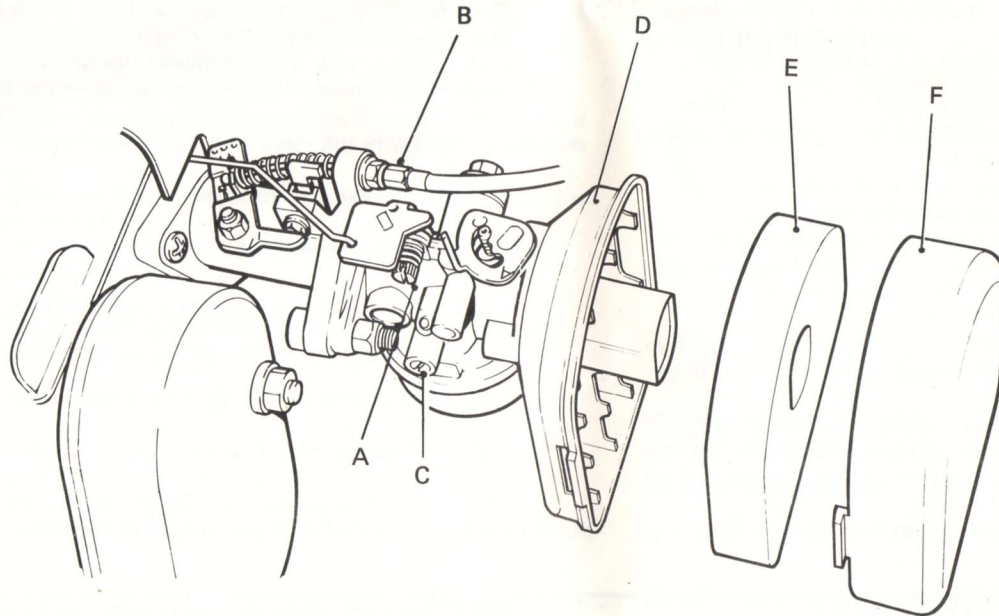
Too rich or too weak will cause the engine to splutter or miss. Set the adjustment at a point where the engine idles fastest.

Re-adjust the throttle stop screw (A) so that the engine just ticks over gently. When all the adjustments have been correctly made, the engine should accelerate smoothly without hesitation.

## Air Filter

Unclip the filter cover (F) from the housing (D) and pull out the foam element (E). Wash the foam in clean petrol or detergent and allow to dry thoroughly. (Replace the foam if it is damaged or very dirty.)






Refit the foam element and clip on the filter cover. If for any reason the housing was removed from the carburettor, ensure that it is refitted with the inlet holes facing downwards.



## Routine Maintenance and Storage

## Warranty, Service & Spares

Your Qualcast Punch is a quality product, with a little care it will give you many years of good service.

Frequency	Item
Every Mowing	<ul style="list-style-type: none"> <li>– Check the engine oil level is just below the filling hole lip.</li> <li>– Remove grass and debris from around the engine cowl and air filter on the carburettor.</li> <li>– Check for loose bolts etc.</li> <li>– Check clutches release correctly and the engine stops at the correct throttle setting.</li> <li>– Check the cutters cut cleanly and adjust if necessary.</li> </ul>
Every 2 months (or 10 hours use):	<ul style="list-style-type: none"> <li>– Lightly oil the front roller spindle and the <b>left side only</b> of the rear roller spindle.</li> <li>– Lightly oil the cutter drive chain and check adjustment.</li> <li>– <b>Very</b> lightly oil the control cable at each end.</li> <li>– Remove and clean the air filter (this may need doing more frequently in dusty conditions).</li> <li>– Lightly oil the cutting cylinder bearings through the spring cap lubricators (30 and 35DL only).</li> </ul> <p> Do not oil the drive belt, the right side of the rear roller, the rear roller drive pinion or the centrifugal clutch.</p>
Winter Storage (or 30 hours use):	<ul style="list-style-type: none"> <li>– Clean down the mower thoroughly.</li> <li>– Lightly oil the cutting edges of the blades and carry out lubrication as 2 monthly maintenance.</li> <li>– Change the engine oil.</li> <li>– Clean the spark plug and adjust the gap to 0.040" (1mm); replace if necessary.</li> </ul> <p> Do not over tighten the spark plug.</p> <p> Store the mower in a dry place.</p> <p> It is best to run the engine a couple of times during the Winter. If this is not possible put a teaspoonful of oil in the spark plug hole and turn the engine over by hand before storing to spread a film of oil over the piston and bore.</p> <p> Avoid using "stale" petrol from the previous season. The petrol can may not be completely sealed in which case the volatile content of the petrol can evaporate over Winter leading to poor starting at the beginning of the next mowing season.</p>
Every 3 years (or 90 hours)	<ul style="list-style-type: none"> <li>– Replace the air filter foam (it may need replacing more frequently in dusty conditions).</li> </ul>
Every 5 years (or 150 hours)	<ul style="list-style-type: none"> <li>– We suggest the engine is overhauled by our Service Agent</li> </ul>

**NOTE:** The same oil as is used for the engine can be used to lubricate the rest of the mower.

Warranty is according to the details stated on the accompanying guarantee.

If you require assistance, service or replacement parts you should contact your nearest Service and Parts Centre or approved Service Agent listed in the "After Sales Service" pamphlet supplied with your mower.

When ordering spares always give the following information (**do not** use the illustration reference number):

- the part number
- the part name
- the quantity required
- the model type and serial number. (These are shown on the rear of the engine cowl for the engine and the rear of the mower for the chassis).

Where parts are made lefthand (LH) and righthand (RH) these are as viewed from behind the mower.

### Radio Interference

This mower is manufactured to conform to the Wireless and Telegraph Regulations 1973 No. 1217 and BS833:1970.

Every effort is made to ensure that this booklet is up-to-date. However, due to our policy of continued product development, changes in production specification may have been made. If in doubt, contact your nearest authorised dealer, or this company direct.



# Fault Finding

## Symptom

## Investigation

### Engine will not start

- Is there petrol in the tank ?
- Is the petrol tap open (i.e. pulled out position) ?
- Is petrol reaching the carburettor? Pull the petrol pipe **off** the carburettor inlet to check. Unscrew the petrol tap from the tank and clean the filter gauze if blocked.
- Is the throttle control set **off the stop** position ?
- Is there a spark? Ensure that there is no excess petrol or petrol vapour in the vicinity of the engine. Remove the spark plug, connect it to the spark plug lead, lay it on a bare piece of metal on the engine and turn the engine over. You should see a spark between the spark plug electrodes if the ignition is working correctly. If there is no spark check the lead is correctly fitted to the spark plug cap. If there is still no spark please contact one of our Service Agents. If there is a spark clean the electrodes with a wire brush, wash the plug in petrol and reset the gap to 1mm (0.040"). Dry the plug thoroughly, reconnect the spark plug cap and check for a spark. Refit and try to start the engine. Fit a new spark plug if the old one is damaged or very corroded.



**Do not** overtighten the spark plug.

- Is the air filter blocked by dirt?
- Is the engine flooded? (The exhaust smells strongly of petrol when the engine is turned over and the spark plug electrodes look wet).
- If it is flooded remove and dry off the spark plug. Turn the engine over 3 or 4 times to expel the vapour from the spark plug hole, replace the plug & try starting with the choke in position 'A'.
- If petrol is flowing check the carburettor float chamber and jets are clean. Switch off the petrol tap, tip the mower forward and support it. Carefully undo the retaining nut (A) and remove the float bowl (B) and remove the float (D) and control needle (E). Unscrew the petrol feed banjo (F) and blow through the passage to clear any dirt. Check if jet (G) is blocked; unscrew it and blow it clean if required.



**Blow** jets and orifices clean. **Do not** push pieces of wire, pins etc. through them

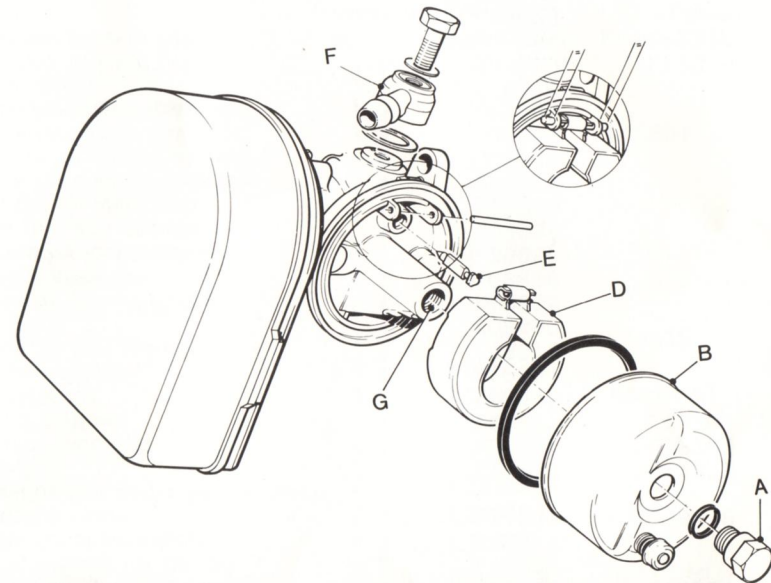
- Reassemble the carburettor by reversing the above procedure.

### Engine will not stop

- Check throttle adjustment with throttle control set to **stop** position (see page 4).

### Engine will not run smoothly and evenly

- Is the spark plug in good condition, clean and correctly set? (see above).
- Is the filter in the petrol tap clean? (Unscrew tap from the tank and inspect.)
- Is the idling jet correctly adjusted? (see page 7).
- Are you using clean petrol?



### Blades will not turn

- Are they jammed? Stop the engine, remove the spark plug cap and turn the blades back to clear.
- The blades are sharp. Use a wooden stick or gloves to protect your hands when turning the cylinder.
- Check the cutter adjustment and sharpness before starting to mow (see page 6).

### Mower leaves a ragged finish

- Check cutter adjustment (see page 6).
- Check bottom blade screws for tightness and the cylinder bearings for play.
- Are the blades damaged or heavily worn? Replace the bottom blade and, if necessary, have the cylinder reground or replaced by our Service Agent.

### Mower will not propel itself along

- Check adjustment of the hand clutch.

### Engine short on power

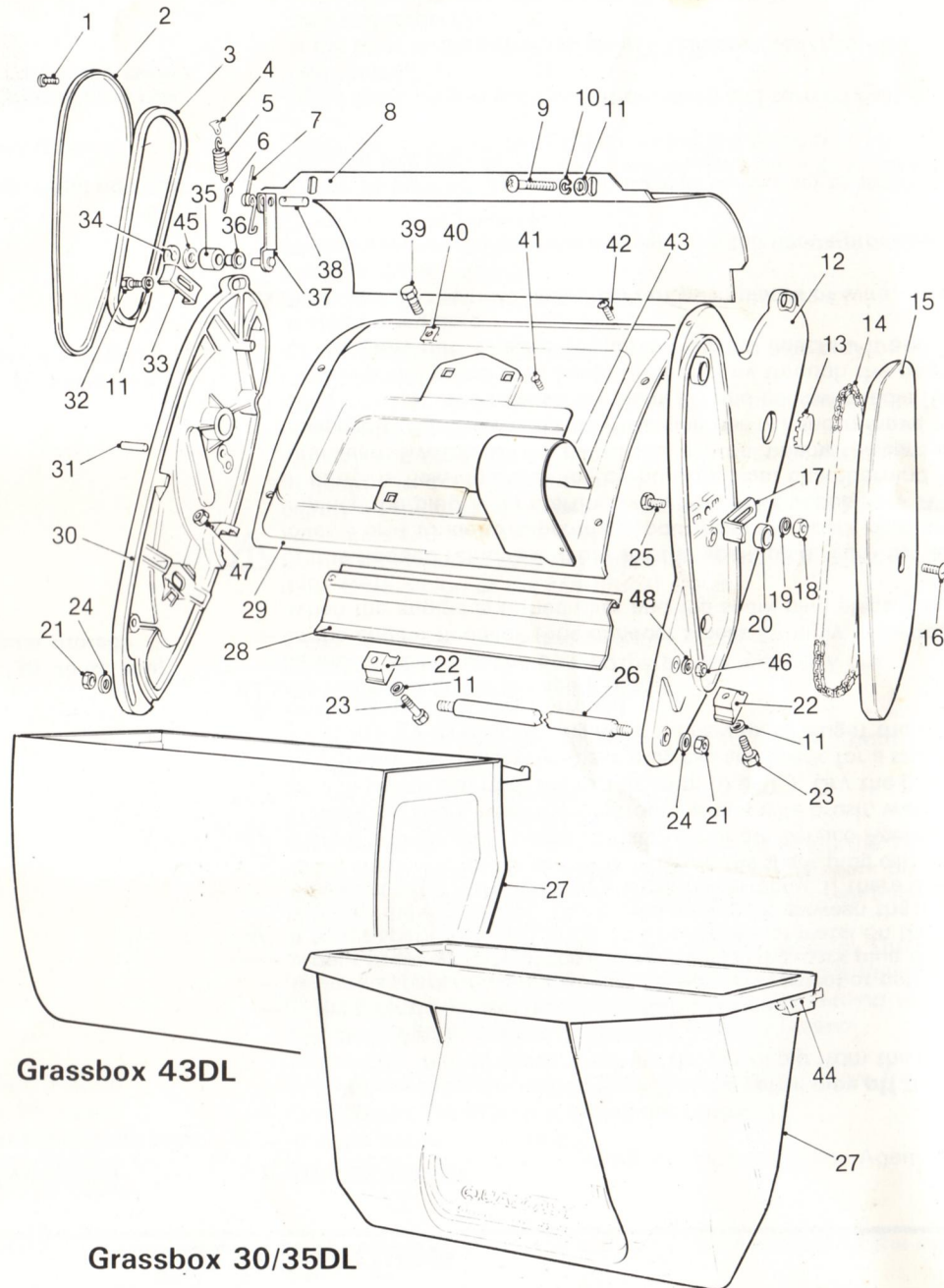
- Is the spark plug clean and correctly set?
- Is the petrol clean and the correct type.
- Does the engine need servicing? (See one of our Service Agents)



If in any doubt and requiring further assistance please contact one of our Service Agents.

# Main Frame and Grassbox

## Punch 30/35DL/43DL

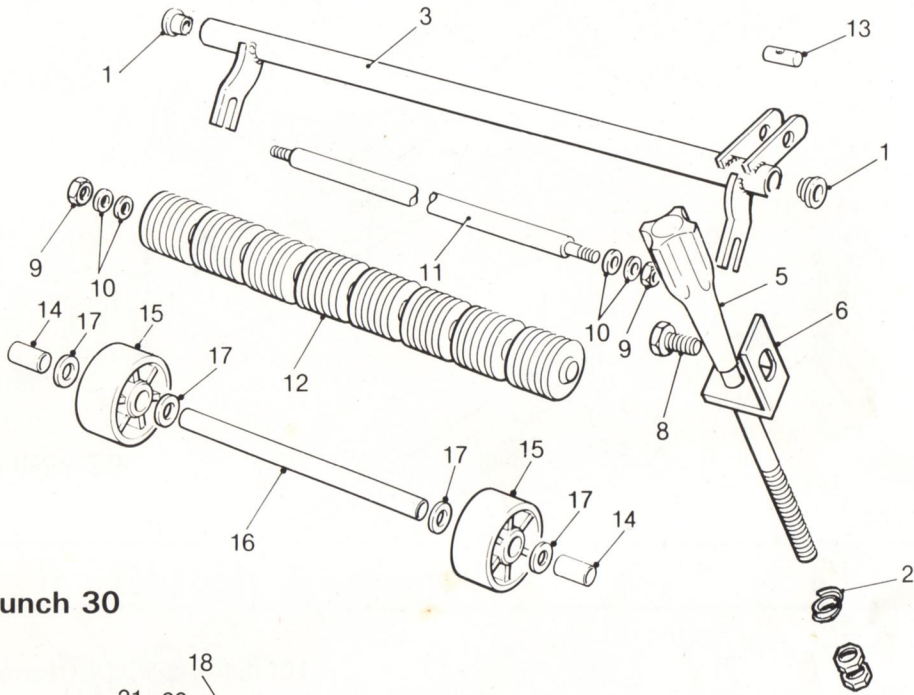


### Illus.

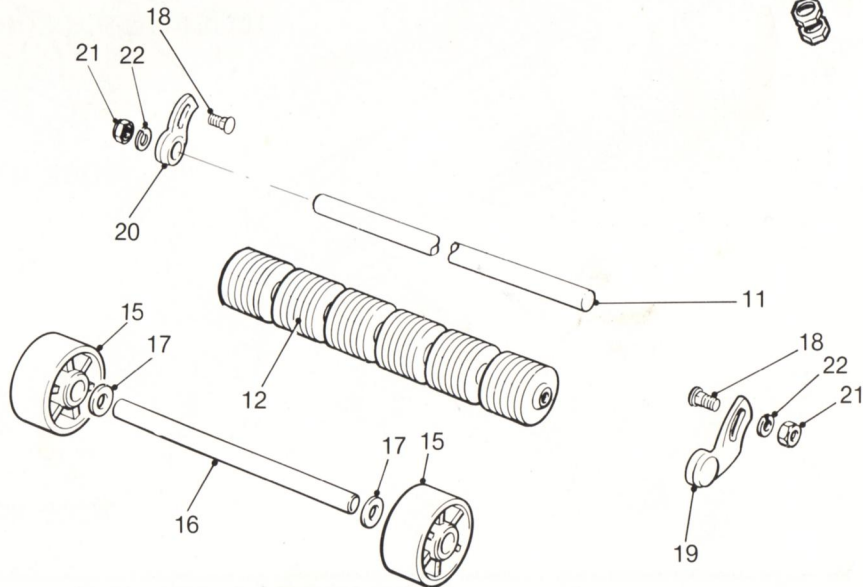
No.	Description	No. per Set	Part No. Punch 43DL	Differences from Punch 43DL	
				Part No. Punch 35DL	Part No. Punch 30
1	Screw for belt cover	2	L08798		
2	Roller Drive Cover	1	L08491		
3	Vee Belt	1	L08476		
4	Shackle	1	L08488		
5	Tension spring	1	L08487		
6	Split pin lever arm	1	L20901		
7	Torsion spring	1	L09037		
8	Delivery plate	1	L21933	L08719	L08447
9	Screw for delivery plate	2	L14723		
10	Spring washer for delivery plate	2	L18090		
11	Washer for bottom blade, delivery plate and belt guide	5	L18030		
12	Sideplate LH	1	L08444		
13	Plug button	1	L17893		
14	Chain	1	L08716		L05148
15	Cutter Drive Cover	1	L08492		
16	Screw for cutter drive cover	1	L08583		
17	Chain adjuster	1	L10832		
18	Nut for chain adjuster	1	L18079		
19	Washer for chain adjuster,	1	L18177		
20	Nylon slipper for chain adjuster	1	L07063		
21	Nuts for tie rod	2	L20303		
22	Block for bottom blade	2	L18079		
23	Bolt for bottom blade unit	2	L22066	L18021	L18021
24	Spring washer for tie rod	2	L18027		L18204
25	Screw for chain adjuster	1	L18017		
26	Tie rod	1	L21932	L08718	L08446
27	Grassbox (inc items 44 for Punch 35 & 30)	1	L21953	L12323	L12322
28	Bottom blade unit	1	L21984	L08780	L08779
29	Engine platform	1	L21947	L12207	L12206
30	Sideplate RH	1	L08443		
31	Roll pin for belt	1	L10984		
32	Screw for belt guide	1	L18029		
33	Belt guide	1	L08490		
34	Circlip for jockey pulley	1	L08585		
35	Jockey pulley	1	L08815		
36	Bearing for jockey pulley	1	L09056		
37	Lever arm and spindle	1	L09039		
38	Mills pin for lever arm	1	L03725		
39	Screw for engine mounting	4	L18019		
40	Nut grip for engine mounting	4	L08770		
41	Screw for clutch cover	3	L08587		
42	Screw for engine platform	6	L08592		
43	Clutch cover	1	L18676		
44	Grassbox Bracket LH	1	not fitted	L12325	L12325
	Grassbox Bracket RH	1	not fitted	L12324	L12324
45	Washer	as reqd	L18023	not fitted	not fitted
46	Locknut anchor bracket	1	L11218		not fitted
47	Nut - bottom blade unit	2	L22067	L09079	L09079
48	Washer for anchor bracket	1	L11101		

# Front Roller Assembly

## Punch 35DL/43DL



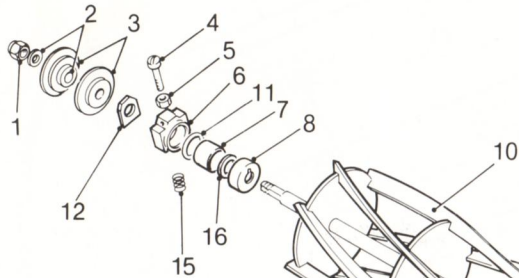
## Punch 30



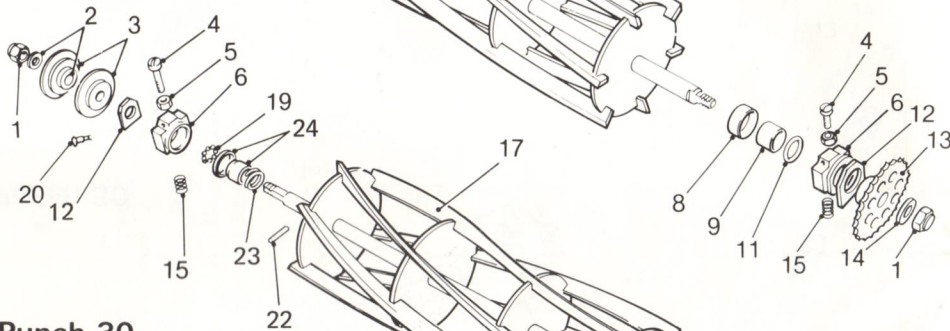
Illus. No.	Description	No. per set	Part No. Punch 43DL	Differences from Punch 43DL	
				Part No. Punch 35DL	Part No. Punch 30
1	Bush for roller carrier	2	L07771		not fitted
2	Double coil spring washer	1	L13288		not fitted
3	Front roller carrier	1	L21948	L13801	not fitted
4	Locknut	2	L18728		not fitted
5	Height adjusting wheel	1	L13802		not fitted
6	Anchor bracket	1	L13808		not fitted
8	Bolt for anchor bracket	1	L22809		not fitted
9	Nuts for front roller	1	L20303		not fitted
10	Washer for front roller	4	L18037		not fitted
11	Front roller spindle	1	L21951	L11619	L08448
12	Front roller double	4	L08833		3 off only
	Single roller	1	L08834	not fitted	not fitted
13	Trunnion nut	1	L13910		not fitted
14	Spacer tube - short	2	L12319		not fitted
15	Auxilliary wheel	2	L22149		
16	Spacer tube - long	2	L21963	L12318	L12317
17	Washer	4	L18025		2 off only
18	Bolt for roller bracket	2	not fitted	not fitted	L08673
19	Roller bracket (L.H.)	1	not fitted	not fitted	L05199
20	Roller bracket (R.H.)	1	not fitted	not fitted	L05198
21	Nut for roller bracket	2	not fitted	not fitted	L18016
22	Washer for roller bracket	2	not fitted	not fitted	L18204

# Cutter Assembly

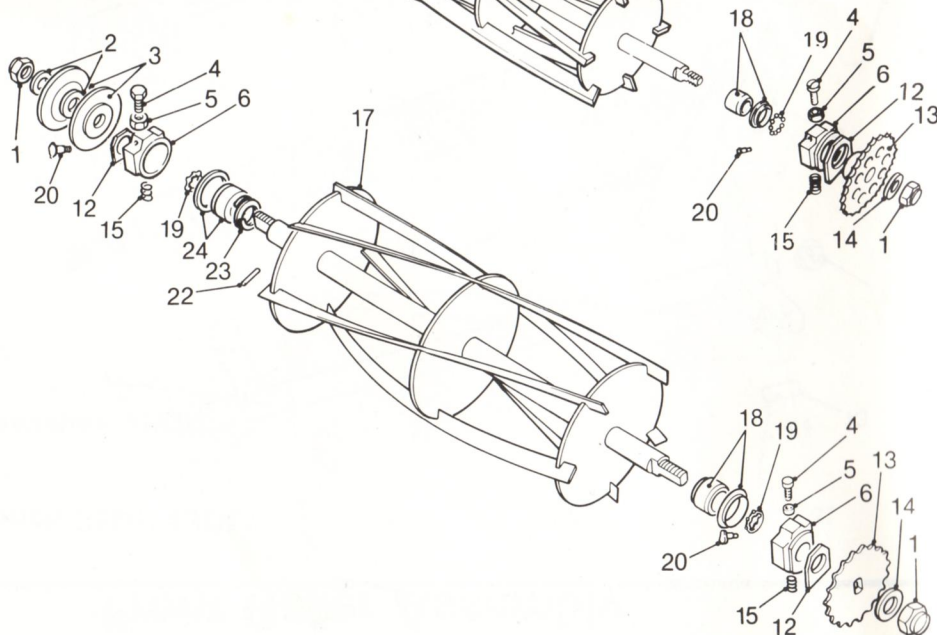
## Punch 43DL



## Punch 35DL



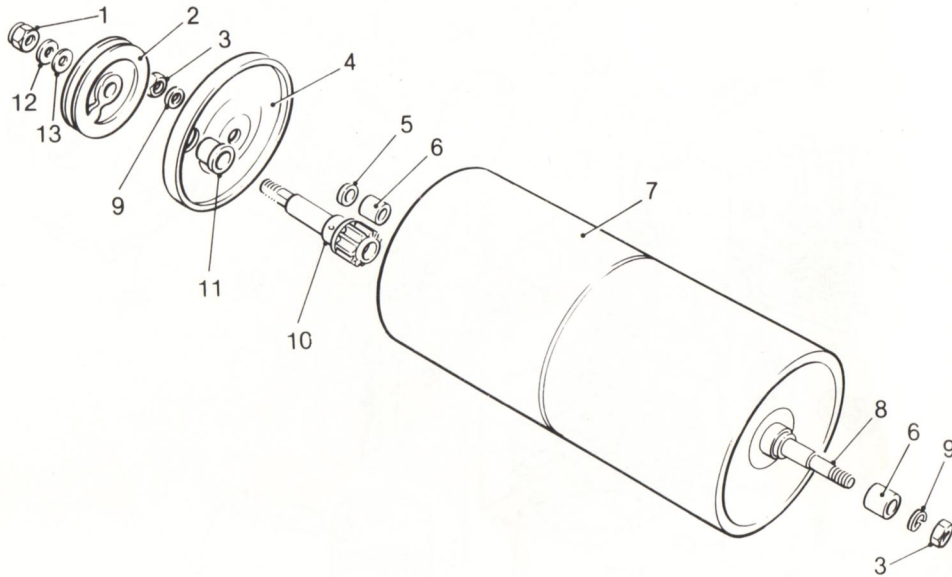
## Punch 30



Illus. No.	Description	No. per Set	Part No. Punch 43DL	Differences from Punch 43DL	
				Part No. Punch 35DL	Part No. Punch 30
1	Nut for cylinder spindle	2	L06957		
2	Cylinder pulley spacer	2	L08474		
3	Cylinder pulley half	2	L08473		
4	Adjusting screw for bearing block	2	L22114	L07222	L07222
5	Nut for bearing block adjusting screw	2	L06954		
6	Bearing block assembly	2	L21981		
			(RH)	L08536	L08536)
			(LH)	L08537	L08537)
7	Spacer — RH	1	LL21961	not fitted	not fitted
8	Shroud	2	L08890	not fitted	not fitted
9	Spacer — LH	1	L21960	not fitted	not fitted
10	Cutting cyl. (inc items 7,8,9,16)	1	L21935	not fitted	not fitted
11	Nylos ring	2	L07037	not fitted	not fitted
12	Felt pad for cylinder spindle	2	L08472		
13	Sprocket	1	L08722		L08538
14	Washer for sprocket	1	L18025		
15	Spring for bearing block	2	L03494		
16	Spring washer for cutting cylinder	1	L07044	not fitted	not fitted
17	Cutting cylinder with cones & dust seals	1	not fitted	L08725	L08469
18	Cone, long, LH	1	not fitted	L07153	L07153
19	Ball retainer	2	not fitted	L02968	L02968
20	Lubricators	2	not fitted	L06751	L06751
22	Mills pin for cutting cylinder	1	not fitted	L09305	L09305
23	Spring washer for cutting cylinder	1	not fitted	L02970	L02970
24	Cone, short, RH	1	not fitted	L07154	L07154

# Rear Roller Assembly

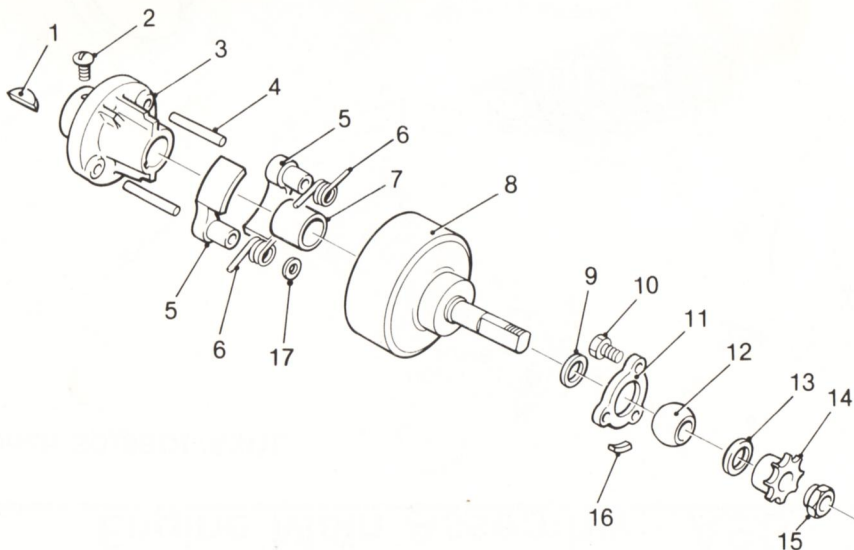
Punch 30/35DL/43DL



Illus. No.	Description	No. per Set	Part No. Punch 43DL	Differences from Punch 43DL	
				Part No. Punch 35DL	Part No. Punch 30
1	Nut for pinion shaft	1	L06957		
2	Rear roller pulley	1	L09227		
3	Nut for rear roller spindle	2	L18018		
4	Cover plate for rear roller	1	L08775		
5	Thrust washer for rear roller	1	L08451		
6	Bush for rear roller	2	L07034		
7	Rear roller complete with bushes	1	L21941	L11995	L11994
8	Rear roller spindle	1	L21934	L08721	L08450
9	Spring washer for rear roller spindle	2	L18028		
10	Pinion & shaft sub-assembly	1	L11993		
11	Bush for pinion shaft	1	L08477		
12	Washer — shim	3	L18024		
13	Washer — shim	1	L09614		

# Clutch Assembly

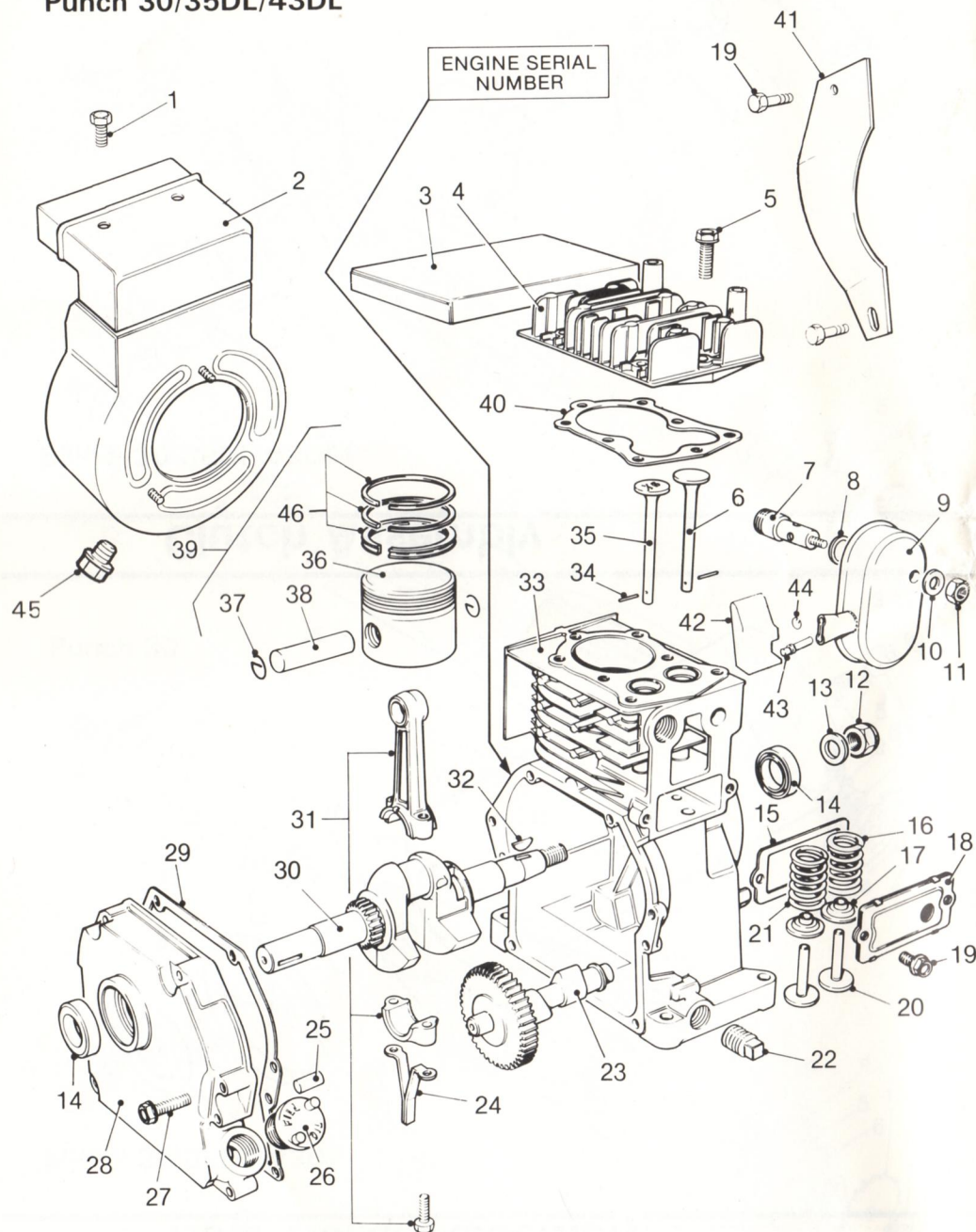
Punch 30/35DL/43DL



Illus. No.	Description	No. per set	Part No. Punch 43DL	Differences from Punch 43DL	
				Part No. Punch 35DL	Part No. Punch 30
1	Woodruff key for clutch backplate	1	L03845		
2	Setscrew for clutch backplate	1	L03846		
3	Clutch backplate	1	L11950		
4	Mills pin for clutch shoe	2	L08810		
5	Clutch shoe and lining	2	L08708		
6	Clutch spring	2	L08712		
7	Bush for clutch backplate	1	L12222		
8	Clutch spindle and drum	1	L11990		
9	Thrust collar for clutch spindle	1	L08499		
10	Screw for bearing retainer	3	L18029		
11	Bearing retainer	1	L08502		
12	Spherical bush	1	L08501		
13	Thrust collar for sprocket	1	L08500		
14	Sprocket	1	L08717		L07859
15	Nut for clutch spindle	1	L08388		
16	Felt packing strip	1	L08503		
17	Ratchet plate	2	L08416		

# Engine Main Assembly - A98 - 7A

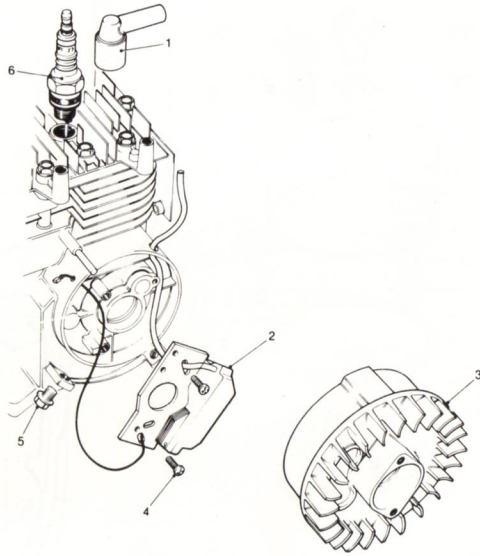
Punch 30/35DL/43DL



Illus. No.	Description	No. per set	Part No. Punch 43DL	Differences from Punch 43DL	
				Part No. Punch 35DL	Part No. Punch 30
1	Bolts for cowl	2	L11377		
2	Cowl	1	L17910		
3	Gasket set	1	L22536		
4	Cylinder head	1	L17863		
5	Bolt - cylinder head	8	L11367		
6	Inlet valve	1	L17805		
7	Connecting pipe	1	L08686		
8	Washer gasket	1	L08691		
9	Silencer sub-assembly	1	L20886		
10	Washer for silencer	1	L08912		
11	Nut for silencer	1	L21749		
12	Nut for crankshaft	1	L17845		
13	Washer for crankshaft	1	L17849		
14	Oil seal	2	L03813		
15	Breather gasket	1	L12273		
16	Inlet valve spring	1	L03529		
17	Valve spring retainer	2	L03968		
18	Breather assembly	1	L21822		
19	Screw for breather & front cover plate	4	L11366		
20	Tappet	2	L03535		
21	Exhaust valve spring	1	L03528		
22	Drain plug	1	L03822		
23	Camshaft	1	L17860		
24	Oil splasher	1	L18590		
25	Dowel pin	2	L17953		
26	Oil filler plug	1	L17844		
27	Screw for crankcase cover	6	L11370		
28	Crankcase cover	1	L17864		
29	Gasket - crankcase cover	1	L17842		
30	Crankshaft	1	L17861		
31	Connecting rod assembly	1	L17852		
32	Key for flywheel	1	L03597		
33	Cylinder block	1	L21873		
34	Cotter pin valves	2	L03531		
35	Exhaust valve	1	L17804		
36	Piston	1	L17862		
37	Wire circlip	2	L21516		
38	Gudgeon pin	1	L08222		
39	Piston assembly	1	L20971		
40	Cylinder head gasket	1	L17843		
41	Front cover plate	1	L17840		
42	Governor blade	1	L17895		
43	Spindle for governor blade	1	L17906		
44	Circlip	1	L17907		
45	Screw for cowl	2	L11366		
46	Piston ring set	1	L22171		

# Ignition Assembly

Punch 30/35DL/43DL

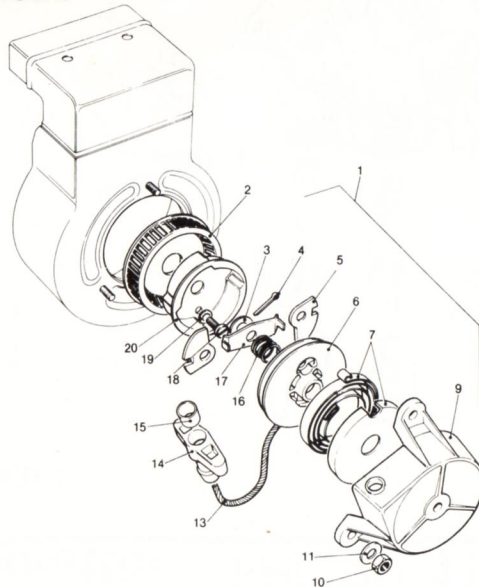


Illust. No.	Description	No. per set	Part No. Punch 43DL
1	Supressor cap	1	L11606
2	Electronic ignition unit	1	L21876
3	Flywheel	1	L21875
4	Screw for ignition unit	2	L22033
5	Screw for cowl	2	L11366
6	Spark plug	1	L08400

Differences from Punch 43DL  
Part No. Punch 35DL    Part No. Punch 30

# Recoil Starter Assembly

Punch 30/35DL/43DL

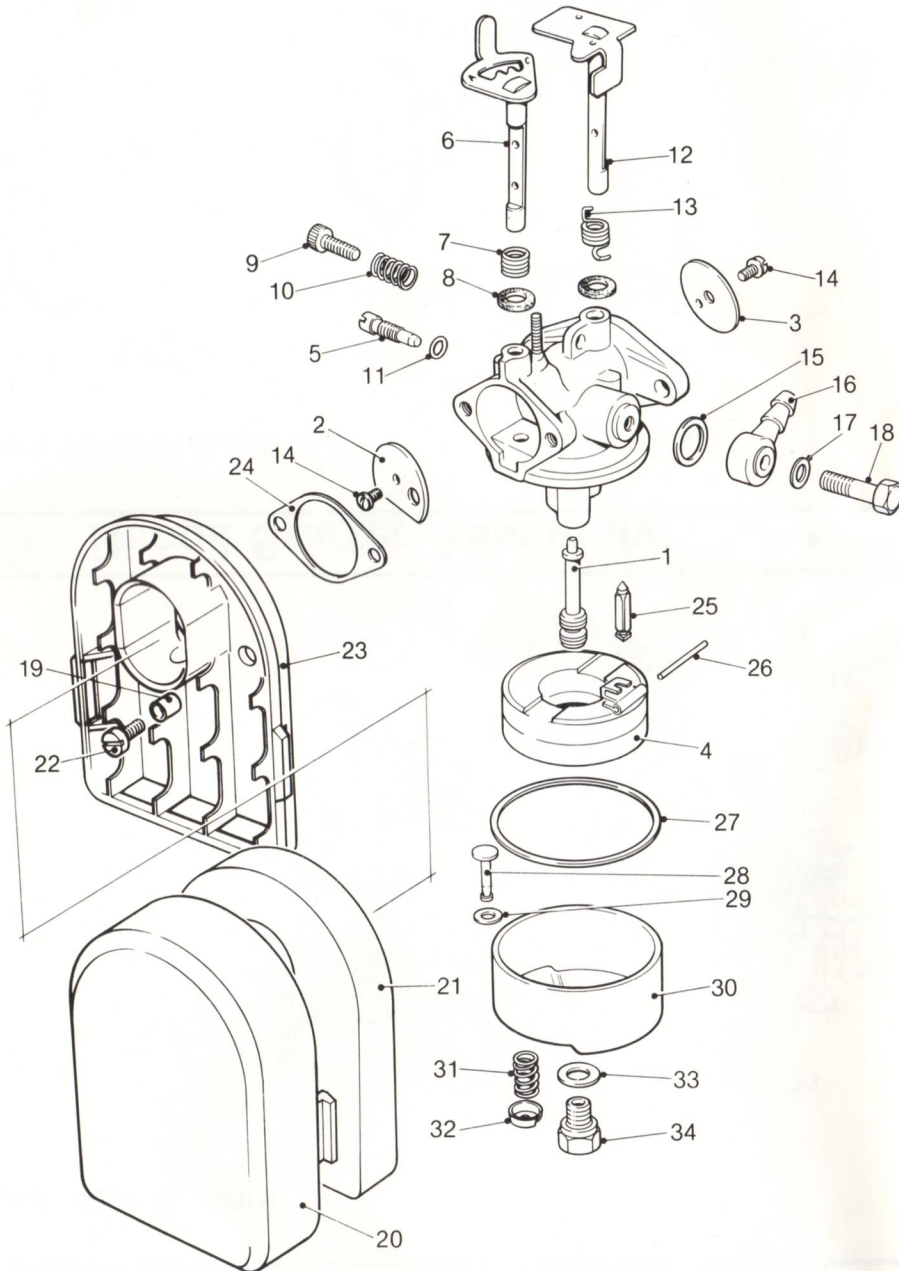


Illus No.	Description	No. per Set	Part No. Punch 43DL
1	Recoil starter assembly	1	L20885
2	Rotary screen (not included with L20885)	1	L09255
3	Collar	1	L21108
4	Split pin	1	L20901
5	Pawl	2	L09330
6	Pulley	1	L09328
7	Recoil spring & housing assy. (not supplied separately)	1	L21131
9	Recoil housing (complete with eyelet)	1	L10889
10	Nut for recoil fixing	3	L18149
11	Washer for recoil fixing	3	L18129
13	Rope	1	L05517
14	Rubber handle	1	L11932
15	Ferrule for handle	1	L09035
16	Compression spring	1	L09331
17	Activator	1	L21107
18	Screw for driving hub (not included with L20885)	2	L18176
19	Washer for driving hub (not included with L20885)	2	L18174
20	Driving hub (not included with L20885)	1	L09332

Differences from Punch 43DL  
Part No. Punch 35DL    Part No. Punch 30

# Carburettor FHC 20.11A

Punch 30/35DL/43DL



Illus. No.	Description	No. per set	Part No. Punch 43DL	Differences from Punch 43DL		
				Part No. Punch 30DL	Part No. Punch 30	
1	Idle emulsion tube - main jet	1	Q01115			
2	Air valve	1	Q01045			
3	Throttle valve	1	Q01063			
4	Float	1	Q01064			
5	Screw	1	Q01065			
6	Spindle	1	Q01068			
7	Spring	1	Q02069			
8	Gasket	2	Q01071			
9	Screw	1	Q01072			
10	Spring	1	Q01073			
11	Gasket	1	Q01074			
12	Spindle	1	Q01075			
13	Spring	1	Q01076			
14	Screw	1	Q01078			
15	Gasket	1	Q01079			
16	Fuel inlet banjo	1	Q01080			
17	Gasket	1	Q01081			
18	Screw	1	Q01082			
19	Spacing tube	1	Q01004			
20	Air filter cover	1	Q01002			
21	Foam element	1	Q01003			
22	Screw	1	Q01095			
23	Air filter housing	1	Q01001			
24	Gasket	1	Q01097			
25	Needle	1	Q01101			
26	Float pin	1	Q01104			
27	Gasket	1	Q01105			
28	Rod	1	Q01106			
29	Gasket	1	Q01107			
30	Float chamber	1	Q01108			
31	Spring	1	Q01109			
32	Pushbutton	1	Q01110			
33	Gasket	1	Q01112			
34	Plug	1	Q01113			

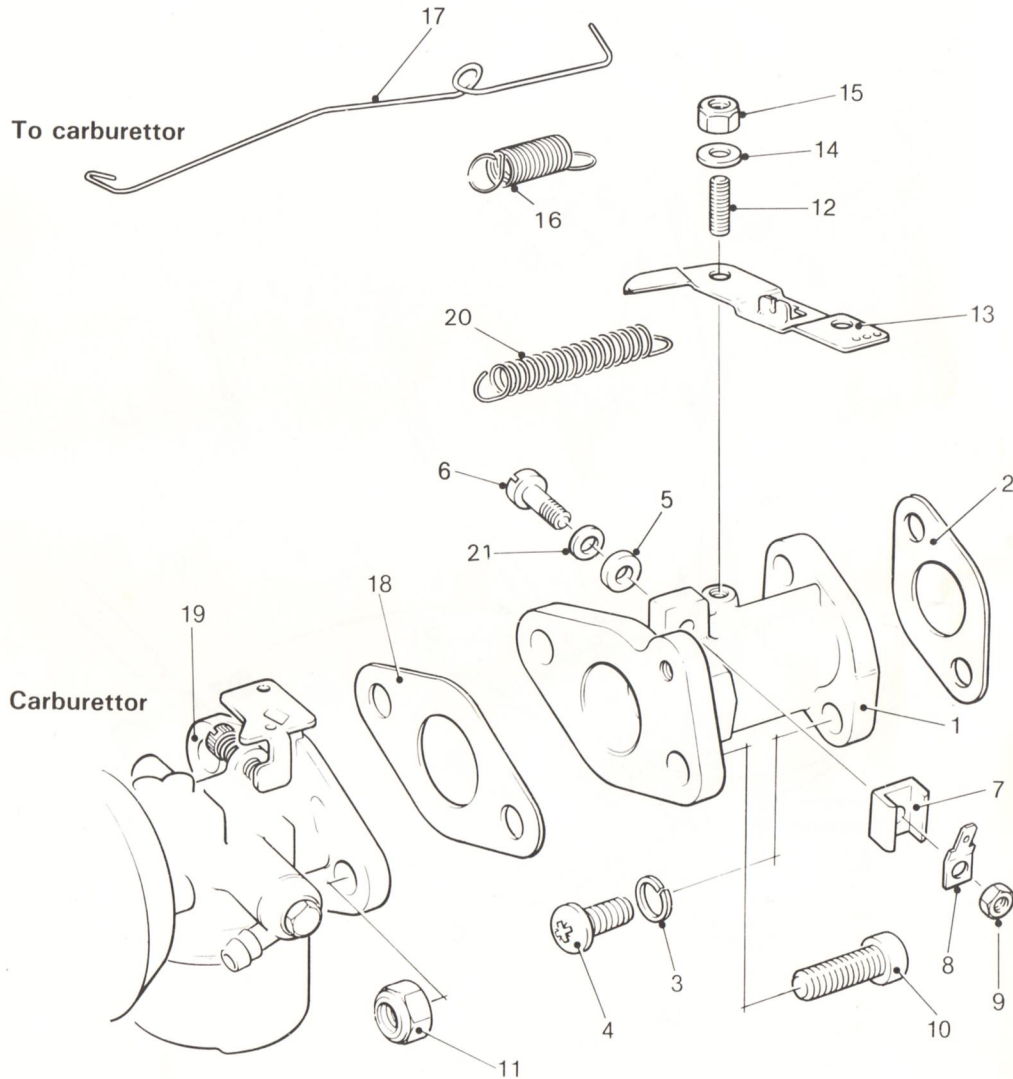
Carburettor - complete

L22477



# Carburettor/Inlet Manifold Assembly (air vane governor, A98 engine)

Punch 30/35DL/43DL

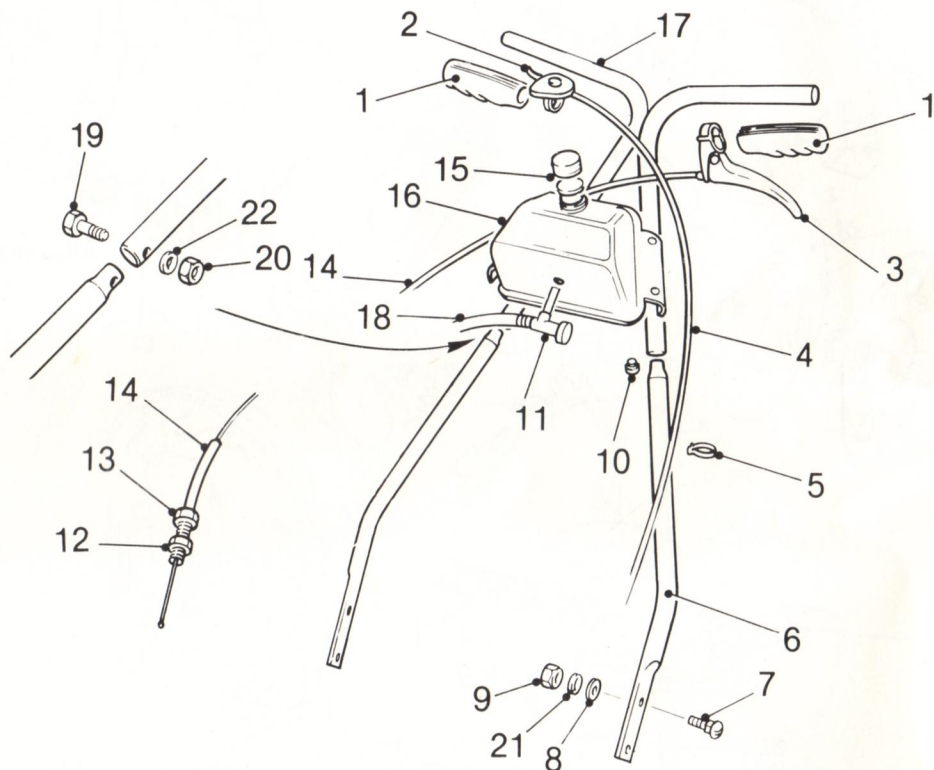


Illus. No.	Description	No. per set	Part No. Punch 43DL	Differences from Punch 43DL	
				Part No. Punch 35DL	Part No. Punch 30
1	Inlet manifold	1	L22480		
2	Gasket manifold to engine	1	L08589		
3	Spring washer	2	L18139		
4	Screw	2	L11382		
5	Insulating washer	1	L22484		
6	Screw	1	L11397		
7	Cut-out insulator	1	L22485		
8	Tag cut-out	1	L22486		
9	Nut	1	L11228		
10	Screw, carburettor to manifold	2	L22482		
11	Nut	2	L10074		
12	Stud	1	L14779		
13	Throttle lever	1	L14743		
14	Washer	1	L18303		
15	Locknut	1	L11220		
16	Governor spring assembly	1	L22983		
17	Throttle link	1	L22481		
18	Gasket - carburettor to manifold	1	L22483		
* 19	Carburettor complete	1	L22477		
20	Throttle return spring	1	L06531		
21	Washer	3	L11132		

\* NOTE: for carburettor spares you should contact your nearest Qualcast agent.

# Handle Assembly

Punch 30/35DL/43DL



Illus. No.	Description	No. per set	Part No. Punch 43DL	Differences from Punch 43DL	
				Part No. Punch 35DL	Part No. Punch 30
1	Handle grip	2	L08665		
2	Throttle control lever	1	L14780		
3	Clutch lever	1	L08517		
4	Throttle cable	1	L22989		
5	Cable clip	4	L11580		
6	Lower handle	2	L21964	L08735	L08507
7	Bolt for handle	2	L08672		
8	Washer for handle	2	L18177		
9	Nut for handle	2	L18016		
10	Grommet for tank	4	L12181		
11	Petrol tap	1	L22731		
12	Nut for adjuster	1	L18020		
13	Adjuster for cable	1	L09313		
14	Cable for jockey pulley	1	L09312		
15	Petrol cap with washer	1	L21371		
16	Petrol tank with cap and washer	1	L09295		
17	Handle top section	1	L08505		
18	Petrol pipe	1	L22734		
19	Screw for handle	2	L07350		
20	Nut for handle	2	L07318		
21	Washer for handle	2	L18034		
22	Spring washer - handle fixing	2	L18204		



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