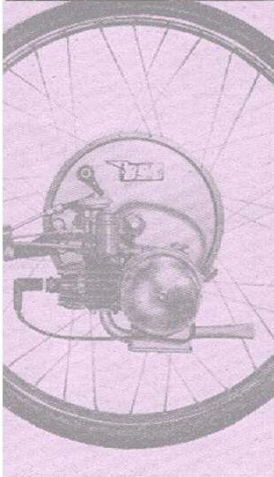


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# INSTRUCTION MANUAL

FOR

## THE *Teagle Cycle motor*



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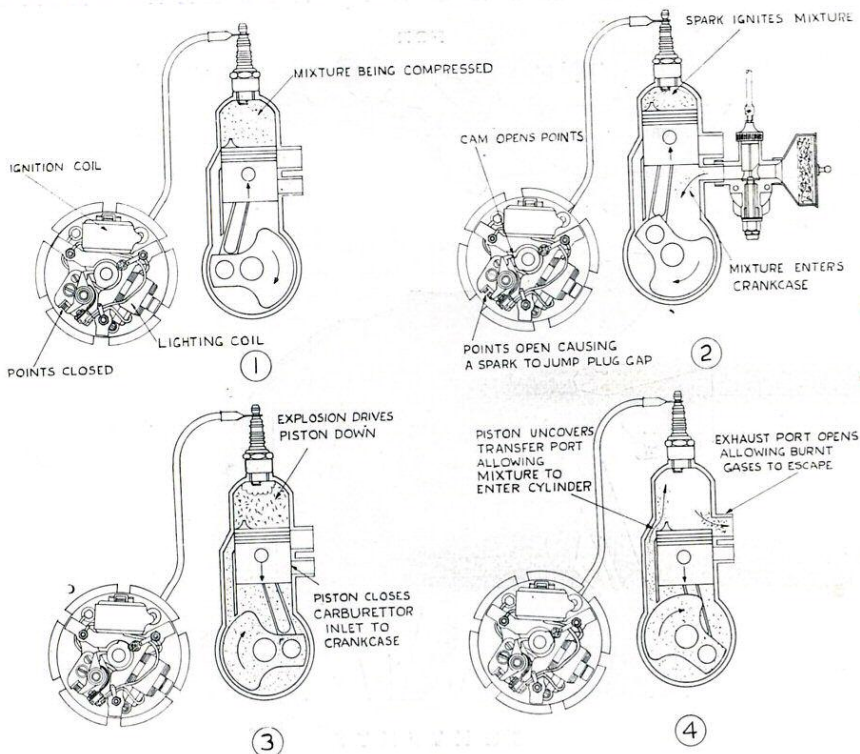
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*Magneto and Carburettor Spares lists are loose leaf inserts*

**W. T. TEAGLE (Machinery) LTD.**

**TRURO • CORNWALL • ENGLAND**

# HOW THE TEAGLE 49 c.c. TWO-STROKE ENGINE WORKS



*These diagrams are for descriptive purposes only.*

The above diagrams show the sequence of operations inside the engine. It will be seen that the mixture is exploded every revolution of the crankshaft, that is every Two Strokes of the piston. As the crankcase is a reservoir for the mixture and is subjected to alternate suction and pressure by the movement of the piston, it will be obvious that any leaks will cause dilution of the mixture during the suction stroke, owing to air being drawn in. Thus it is imperative for efficiency and economy that the crankcase oil seal is functioning perfectly. The gasket at the carburettor flange must also be airtight. The rush of mixture from the crankcase via the transfer port into the cylinder is deflected upwards by the shape of the piston crown and pushes the exhaust gases out of the exhaust port. The efficiency of the engine depends on the cylinder being properly filled with the mixture and any impediment in the exhaust system will prevent this. Thus the silencer should be removed at regular intervals and well cleaned of any carbon that may be building up in the port holes. The exhaust ports in the cylinder will also require attention periodically and should be scraped free of carbon deposits with a blunt pocket-knife. The piston must be at the bottom of its stroke, to prevent any damage to its skirt.

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*You will be proffered Abuse, Ignorance and Impatience—which won't help you. A little Common Sense will succeed every time.*

Then if the sparking-plug is removed, any loose particles of carbon that may be inside the cylinder may be blown out. The silencer should then be assembled and plug replaced, when it should be found that the engine has regained its former power.

Occasionally it will be necessary to remove the carbon deposit on top of the piston. This will necessitate removing the petrol tank and air cowl before the cylinder head can be removed. Then the piston should be brought to the top of its stroke, when the carbon can be scraped off. Care should be taken not to scratch the soft aluminium piston crown, as it provides a key for further carbon to adhere to. The cylinder head may also have a carbon deposit which should be removed. (Note re tightening cylinder head bolts—see page 8).

After an engine has been in service for a lengthy period a deposit of oil may build up in the crankcase, owing to the petrol evaporating while the engine is idle, leaving the oil behind. This accumulation of oil will cause difficult starting, as the oil gets on the sparking-plug points. A small crankcase drain plug will be found underneath, and if this is unscrewed and the engine is turned over with the sparking-plug removed, excess oil will be blown out. The drain plug must be replaced before starting the engine. Do not use unnecessary force in using the spanner as it may strip the threads in the aluminium casting.

### **Running in a New Engine.**

Your new engine should preferably be driven carefully for its first 200 miles, to enable the piston to bed down to the cylinder. The cylinder wall has minute spots which stand up a fraction, and which are so small that they can only be measured in micro-inches, and these can only be worn smooth while the engine is actually running. The piston also distorts a certain amount, owing to the working temperature, and the high spots on it will also be removed during the running-in process. It is essential that the oil in the petrol is not forgotten at any time during the engine's life, as this is the only method of lubrication for the piston and engine bearings. All other things being equal, an engine which has been run in carefully will give much longer service before an overhaul is required, and will prove more economical in fuel consumption than one which has been driven harshly.

### **The Carburettor.**

The carburettor has the duty of supplying the petrol mixture in correct proportions for combustion. One part of petrol requires approximately fourteen parts of air by weight for correct combustion, and reference to the diagrammatic sketch will show how this is achieved.

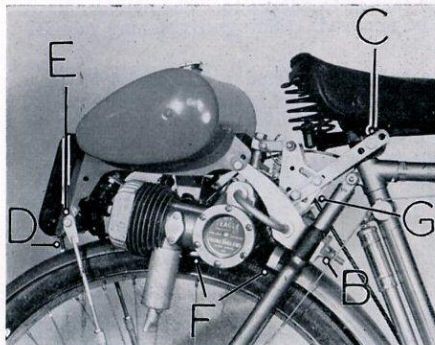
The motion of the piston creates a suction in the crankcase when, on its up-stroke, air is drawn in through the carburettor inlet at high velocity. This passes over the needle jet protruding in the air stream and causes a partial vacuum in the jet, as is caused in a chimney by the wind, or in a jet of insecticide spray when the bulb is squeezed. The vacuum causes the petrol in the needle jet, which is normally approximately  $\frac{1}{8}$  in. below the top, to move up the jet to the top where it is picked up by the air stream and is carried into the crankcase ready for transferring to the cylinder. At the bottom of the jet tube is a small orifice, or jet, which meters the amount of petrol entering from the float chamber. This governs the proportion of petrol to air. Closing the throttle slide causes the air stream flow to be restricted and thus reduces the volume of mixture entering the engine. So the throttle slide governs the engine speed by opening and closing the air intake. The float chamber is connected to the petrol tank and contains a brass float which regulates the level of petrol in the jet tube by rising with the fuel and closing a valve when the level is correct.

The choke, which is fitted on the air filter, gives a rich mixture for starting a cold engine. The lever is moved so that the segmental openings are closed, thus cutting off the air supply to the carburettor. This induces a very high proportion of petrol to air to enter the engine, which facilitates starting. As soon as the engine warms up the choke must be opened to allow the correct mixture proportions to prevail.

*(Continued at foot of next page)*

## FITTING INSTRUCTIONS

Before fitting the TEAGLE CYCLEMOTOR the CYCLE should be put in thoroughly good roadworthy condition. Special attention should be given to the brakes. The rear wheel should be fitted with a tyre designed and built for Cyclemotor use and with the Tread Ribs running longitudinally. These tyres give exceedingly good service. When fitting see that the wheel and tyre run true.



### Instructions for fitting 1955 Super Model B (Blower Cooled) and 1955 Standard Model A (Atmosphere Cooled)

- A. Mark Mudguard  $1\frac{1}{2}$  ins. and  $9\frac{1}{4}$  ins. back from rear support stay. Cut across the mudguard with Timmen's Snips or Fine Tooth Hacksaw at the  $1\frac{1}{2}$  in. mark and drill or punch a hole large enough for  $\frac{1}{4}$  in. bolt to enter in centre of mudguard on  $9\frac{1}{4}$  in. mark. (NOTE:—Mudguard must only be cut once).
- B. Fit Cycle Motor to rear support stays with clamping bar, using rubber insertion provided. **Do not overtighten.**
- C. The slotted links are fitted one on either side of seat clip bolt (or on cycles with high frame, on seat pillar clamp bolt).
- D. Put rear portion of cycle mudguard in position and fit mudguard support bolt.
- E. Fix rear stays.
- F. Bend aluminium bands on C.M. 3 mudguard flaps tightly around mudguard.

*On Model A the petrol feed pipe MUST be free of Magneto cover.*

**NOTE:**—The Clutch Control Cable must be fitted inside Pillar Bracket C.M. 43, as shown, and it will be easy to operate. If fitted on outside, strain on clutch cable will be three times more and cause inconvenience and eventually cable breaking.

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*(Continued from previous page)*

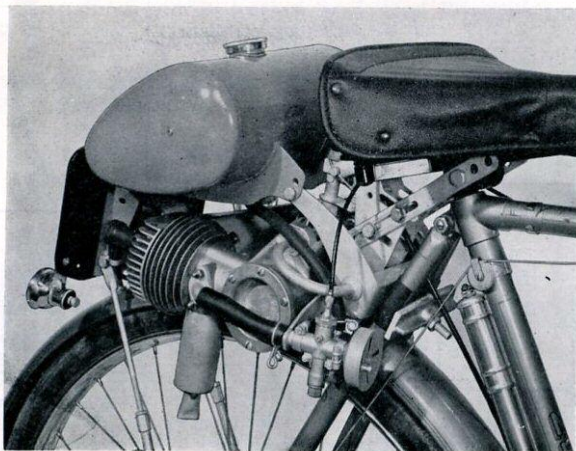
Very little maintenance is required by the carburettor. Periodically it should be cleaned of any sediment that may be in the float chamber and the jet should be blown through to make sure it is quite clear.

The mixture in the cylinder is ignited by an electric spark which occurs when the piston has nearly reached the top of its stroke. The reason for igniting the mixture early is that it gives time for the petrol to completely burn, and by the time the piston has reached the top of its stroke the full force of the explosion is available to drive it down. The electric current for the spark at the sparking-plug is provided by the magneto, which is described on page 10.

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*Excessive Drive Roller slippage in wet weather is due to incorrect assembly or wrong clutch adjustment, or badly worn roller drive.*

## FITTING THE MODEL B (BLOWER COOLED)



Follow instructions as on previous page.

Check that Carburettor is level. If not, take off Carburettor and bend the mounting bracket to the required position.

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*The following notes apply to both machines :*

Throttle and clutch cables must be assembled as straight as possible or with slow curve. Acute bends increase internal friction and cause difficult operation.

*NOTE:*—The Clutch Cable must be fitted inside Bracket C.M. 43, as shown, and it will be easy to operate. If fitted on outside, the strain on clutch cable will be three times more and cause inconvenience and, eventually, cable breaking.

*The main causes of tyre wear are:*

1. A buckled or misaligned wheel, or a badly fitted tyre.
2. Starting the engine, disengaging the drive, mounting the cycle and revving engine to maximum, then engaging drive whilst cycle is stationary.

Preferably, always engage and disengage drive with drive roller and wheel travelling about the same speed.

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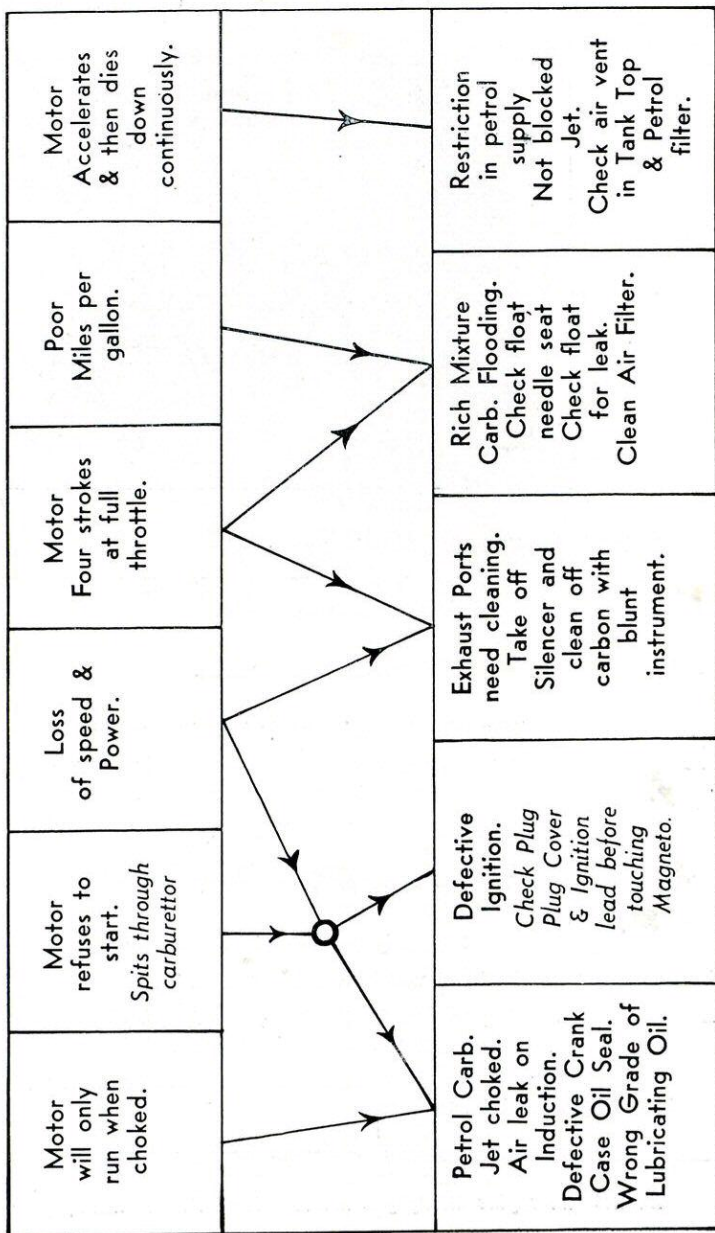
*Do not run engine disengaged unless drive roller is entirely free of tyre.*

# Running Instructions and Fault Finding and their Cure

## STARTING

When starting see that Petrol Oil Mixture is in Tank. Turn tap to On position, open throttle control wide, choke Carburettor and then mount cycle, and when you have attained a speed equal to walking, engage Cyclomotor drive. When engine fires ease back choke. With B.E.C. carburettors an auxiliary starting chamber is filled by pulling the spring-handled plunger off its seat for a few seconds before starting.

FAULT FINDING CHART



oil seals should only be obtained from the Engine Manufacturers, as any oil seal not made for this application will only give trouble. A new oil seal should be used every time the engine is dismantled. If the sleeve on which PE 150 is used shows any sign whatever of wear, it should be renewed.

The oil seals PE 112 and PE 145 do not have to withstand the same operating conditions as PE 150 and do not need to be renewed unless any signs of deterioration are apparent. Oil seal PE 145 should always be assembled in reverse, to release any excess grease instead of allowing it to enter the magneto.

## TEAGLE MINOR ENGINE DATA

British Patent No. 714,619 and others pending.

Single Cylinder 49 cc. Two Stroke. Bore 40 mm., Stroke 40 mm.  
Normal Engine revolutions 3 to 4,000 r.p.m. Maximum revolutions 9,600.  
Maximum Torque developed 22 ozs. at 1 ft. radius at 4,000 r.p.m.

### Piston

Cast from "41" Alloy for use at high temperatures.

Deflector type with two rings.

Ring Gap .055 ins.

### Connecting Rod

Drop Forged from RR56 Aluminium Alloy.

Small End Honed.

Big End Needle Roller Bearing.

Lubricated by oil mist conducted by scavenge through hole drilled in crankpin.

### Lubrication

Internal parts by Petrol Oil Mist. One gallon Petrol to  $\frac{1}{2}$  pint Oil = 16-1.

Outtrigger Bearing. Three shots light grease every two months.

### Cylinder Liner

Centrifugally cast to Air Ministry specification, 4K6.

Replaceable when excessive wear has taken place.

### Sparking-plug

14 mm.  $\frac{3}{8}$  reach. Gap .022 ins.

With Suppressor, Champion XJ8; without Suppressor, Lodge CAN.

### Ignition

Flywheel, clockwise rotation.

Point setting—See next page.

Ignition Advance,  $37^{\circ} 28' = 7/32$  ins.  
B.T.D.C.

### Approximate Petrol Consumption

$\frac{3}{4}$  gallon per 8 hours or 200 m.p.g. at 20 m.p.h.

### Carburettor

Amal

Choke for starting.

Jet needle setting, centre groove.

Needle jet size, .0745.

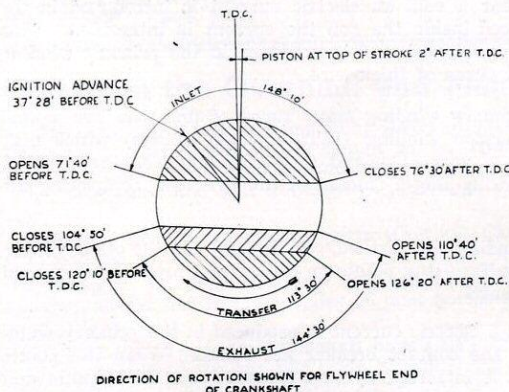
Main jet—No. 25.

### B.E.C.

Fill additional chamber for starting by pulling plunger.

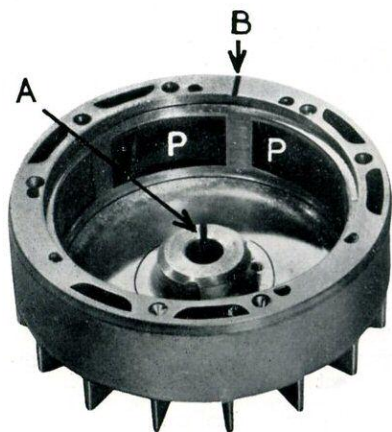
Jet size, 50.

Adjustment for mixture is by pointed screw, controlling vacuum behind jet.

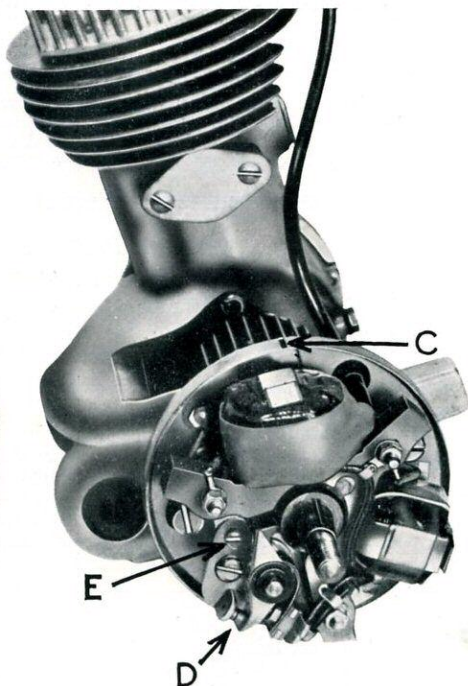


Engine Timing Diagram.

# HOW YOUR MAGNETO WORKS



D—Contact breaker points.



E—Eccentric head adjusting screw for D.

The Magneto used on the Teagle Minor Engine is of the Rotating Magnet—Stationary Coil type, the magnet being cast in the flywheel.

When a magnet is moved near a coil, an electric current is introduced in the wire and when an iron core is placed inside the coil the current is intensified. This current is Low Tension (L.T. or low voltage) and is produced in the primary winding of the coil, which consists of a few turns of thick wire.

Around the outside of the primary winding many turns of fine wire are wound to form the secondary or High Tension winding (H.T. or high voltage) which may consist of as many as 12,000 turns of wire. One end of this winding is earthed and the other end is connected to the Sparking-plug by means of the H.T. lead, completing the circuit through the engine.

Both ends of the primary winding are earthed, one directly and the other via the condenser and contact breaker. The Tungstun points on the contact breaker are opened and closed by a cam on the crankshaft.

When the flywheel is turned an electric current is produced in the primary winding and flows while the points on the contact breaker are closed. When the points open or break, this flow of current is interrupted, the condenser acts like a buffer and forces the current to rush back into the primary winding, causing a more sudden

## Running Instructions and Fault Finding and their Cure

Any nationally advertised and well-known make of lubricating oil of suitable grade for Two Stroke Engines can be used. The following is our recommendation for Castrol lubricating oil. In temperate climates CASTROLITE SAE 20 in SUMMER and SAE 10 GRADE in WINTER when near freezing. In extremely hot climates CASTROL XL30 should be used. OIL should be mixed with PETROL— $\frac{1}{4}$  pint Oil to  $\frac{1}{2}$  gallon Petrol (1-16 ratio). If oil is too thick or of incorrect ratio it will not be drawn through Carburettor Jet, and this will make starting difficult and be detrimental to the engine.

CHECK THAT PETROL IS IN TANK AND TURNED ON BEFORE SEARCHING FOR A FUEL STOPPAGE. ALSO CHECK PETROL FEED PIPE. We believe that we have taken more precautions than usual to keep fuel clean from tank to engine, but minute hair-like particles are very difficult to filter, as they pass through lengthways, eventually blocking the Jet in the Carburettor.

FIRST CHECK FOR STOPPAGE AT CARBURETTOR—remove Dome Nut at bottom of Jet Chamber. If petrol flows, the Jet may be choked. Take great care when removing Jet. Blow it clear from the opposite direction to petrol flow. (Hold Jet up to the light and look through aperture).

IF PETROL DOES NOT FLOW WHEN DOME NUT IS REMOVED, check entry of petrol to Carburettor Float Chamber, also petrol flow through FILTER.

THE FUEL SYSTEM is designed so that AIR LOCKS will not take place—these may occur should the SYSTEM be tampered with or otherwise altered. A defective Plug will cause motor to spit back through Carburettor and refuse to start.

IF IGNITION FAULT IS SUSPECTED, check circuit as far away from MAGNETO as possible. Commence at the PLUG. GAP should be .022 ins., wider gap makes starting more difficult. Narrow gaps cause intermittent firing at higher engine speeds. A plug may be tested for sparking by removing it from Cylinder Head and holding the body of plug against Engine Cylinder Block, and then turning the engine.

Cracks in Plug Cover or in Ignition Lead are a possible source of ignition failure. Check that lead has not become chafed, thus causing shorting to occur. A broken wire inside the lead may give trouble.

A FAULT FINDING CHART is given on the opposite page and we wish to emphasize that if you are in difficulty the correct thing to do is to take off the engine and post it back to the Manufacturers, who are able to rectify any fault, including a major engine overhaul in a few minutes.

SERVICE should be by return of post, and to date we have never made a charge for this service on the thousands of engines in use.

We are not responsible for the cost of detaching ENGINE and posting it back to us, but we return post paid.

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## Notes on the Overhaul and Maintenance of Engine

The majority of troubles (including wear) connected with these engines are directly attributable to dirt and dust. It cannot be too strongly emphasized that any dismantling of the engine must be made under conditions of extreme cleanliness. See that the workbench is clean and that the engine is thoroughly cleaned before commencing work on it.

**Firstly.** Remove all exterior parts (Cowling, Carburettor, Flanges, Cylinder Head and Crankcase cover).

**Secondly.** Withdraw Gudgeon Pin retaining Circlips and drive out pin with  $\frac{1}{4}$  in. rod, being careful not to injure sides of inlet ports. The Piston and Con Rod can now be dismantled.

**Thirdly.** Both nuts on Crankshaft have LEFT HAND THREADS and after taking off outside nut (5/16 ins. LH BSF) the Flywheel can be taken off by holding the Flywheel tightly in one hand, suspending the engine free of the workbench, and giving the

end of the Crankshaft a sharp tap with, preferably, a copper drift. Care should be taken not to damage threads. (A Flywheel puller is preferable if available). Next, remove Stator Plate and Cam on Crankshaft, being careful to remove both Woodruff Keys.

**Fourthly.** Referring to plate on page 15. The main bearing (PE 41) is used for longitudinal location of the Crankshaft. The fit used is not interference. The Crankshaft is held in position through tightening nut (9/16 ins. LH BSF) (PE 38). The Outtrigger Bearing (PE 40) is a force fit on Crankshaft.

To dismantle Crankshaft assembly. Undo both nuts from Gib bolts (PE 9) and slack back nut (PE 38). To undo this nut keep crankshaft from turning by placing a piece of hardwood (hammer shaft) or soft metal between crankweb (not crankpin) and base of cylinder barrel (not liner).

Now the crankshaft can be driven out, preferably using a copper drift. A keyway is cut in spacing sleeve (CM 2) to enable it to pass back over key (PE 53). If spacing sleeve (CM 2) has turned on crankshaft it will have to be reregistered to pass over the key (PE 53).

### THE FOLLOWING REMARKS APPLY TO ENGINE WEAR

**Cylinder Head.** Check Plug Threads, if they are stripped or torn replace casting.

**Cylinder Liner.** When cold the liner does not form a true circle, but when engine is hot, owing to the differential expansion of the aluminium casting and liner, the liner takes a true form. The mean variance between hot and cold is .002 ins. and this is a requirement for efficient running.

If a ridge has formed near the top of the piston stroke and the wear under this ridge is .012 ins. or more, inclusive of both sides, the liner should be renewed. The liner can be extracted by first heating the Cylinder Barrel.

**Piston.** Major point for inspection here is the condition of the piston rings and ring grooves. Clearance of ring in groove when clean should not exceed .003 ins. and thickness of ring should not be less than .018 ins. Ring gap should be .055 ins. (this allows for locating pins) and should be tested where the cylinder is not worn (i.e., above the piston stroke) or the ring will seize and break when moved up and down the liner, as the liner wears less at the bottom, that is away from the heat and chemicals of combustion. Any pistons which show signs of scoring or undue Gudgeon pin bore wear should be discarded. These faults are very rare.

**Connecting Rod.** When a two stroke engine is running under load the connecting rod is stressed under compression only and larger tolerances for wear are permissible than with four stroke engines. On dismantling, if a roller should drop from needle cage no attempt should be made to replace it, but a new bearing obtained, preferably a replacement Connecting Rod complete.

**Crankshaft.** Should be replaced if the ovality of the crankpin exceeds .002 ins.

**Gaskets.** No Gasket should be used for Cylinder Head, but great care is needed to pull it down evenly all round when tightening. Gaskets are used on inlet ports, on the induction side a thick asbestos gasket is used to insulate the heat of engine from tube or carburettor. A thin elastic band is used to seal the crankcase cover. This is very effective, as any oil or petrol present will tend to swell the elastic band and ensure a perfect seal.

No Jointing Compound of any kind should be used on the TEAGLE engine. It is of NO HELP and only makes the engine in a mess and difficult to clean.

**Oil Seals.** PE 150 must be maintained in good order. The effectiveness of this seal is of utmost importance. If any air enters the crankcase through this seal it will upset the functioning of the carburettor, especially when starting. If air enters crankcase through this seal dust will also enter, causing premature wear. These

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*Teagle Minor Engines will give good service if parts are assembled with wear exceeding the tolerances given above.*

*To obtain best results and longest service between overhauls, we recommend that parts should not be replaced unless they are within the limits given.*

breaking of electrical contact and creating higher voltages. Owing to the two windings of the coil being close, but insulated from each other, the breaking or making of an electric current in the one winding induces a current to flow in the other and the voltage of this current is directly proportional to the ratio of the number of turns in each coil and causes the current to jump the points of the plug.

If excessive sparking or pitting appears on the contact breaker points, this indicates a defective condenser.

It is imperative that to obtain the best results the points should break when the L.T. current produced is at its greatest value. To obtain these conditions proceed as follows:—

The two magnetic poles of the magnet which are used for ignition are marked on the photograph PP. They can easily be found as they always bear the same relation to the Keyway A. Mark on the flywheel the trailing edge of the first pole as shown at B. It must be remembered that when the flywheel is assembled it will be placed the opposite way around to that which is shown in the photograph.

Next, mark the trailing edge of the Ignition Coil Core on the rim of the stator plate as at C. Now assemble the flywheel on to the crankshaft and move around until the points marked B and C coincide. Move the flywheel in a clockwise direction 1/16 in. Take off the flywheel without moving the crankshaft. Set points about to open (which are closed, but if the crankshaft rotates any further the cam will cause the points to break). When spinning the flywheel by hand the spark should jump a ¼ in. gap. If the marks on the flywheel and stator plate coincide, a good spark will be produced, but it will be lost at speed, that is why the flywheel should be 1/16 in. in advance.

It will be noted from the above method of setting the points that the feeler gauge is not required—the points may be anywhere between .012 ins. and .022 ins. If closer than this it may be a deterrent, owing to indefinite breaking, and if they open greatly in excess of .022 ins., bounce may set in.

The plate opposite shows lighting coil and lighting magnets, no notice should be taken of these when setting contact breaker points.

When fitting lighting it is usual to use the two-wire system, one wire from the switch being connected to the terminal on outside of stator plate and the other connected to engine block, using any convenient screw.

When using a single wire system make sure to earth engine block to cycle frame.

Bulbs required: 6 Volt. 6 W.—front.

6 Volt. 3 W.—rear.

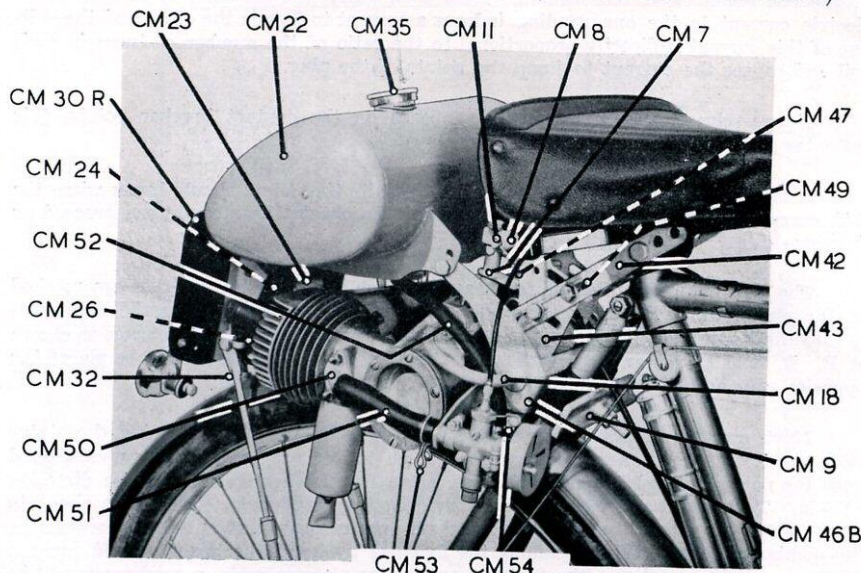
Do not race engine when drive is disengaged and lights switched on as this will fuse bulbs.

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*NOTE:—It helps us to give good service and a quick reply if your letter is short and to the point. We appreciate such letters.*

# PARTS LIST—MODEL B (BLOWER COOLED)



For quick service, requests for parts must bear the following details:—Type of Engine, Part, Part Number and quantity required.

In the following list:—

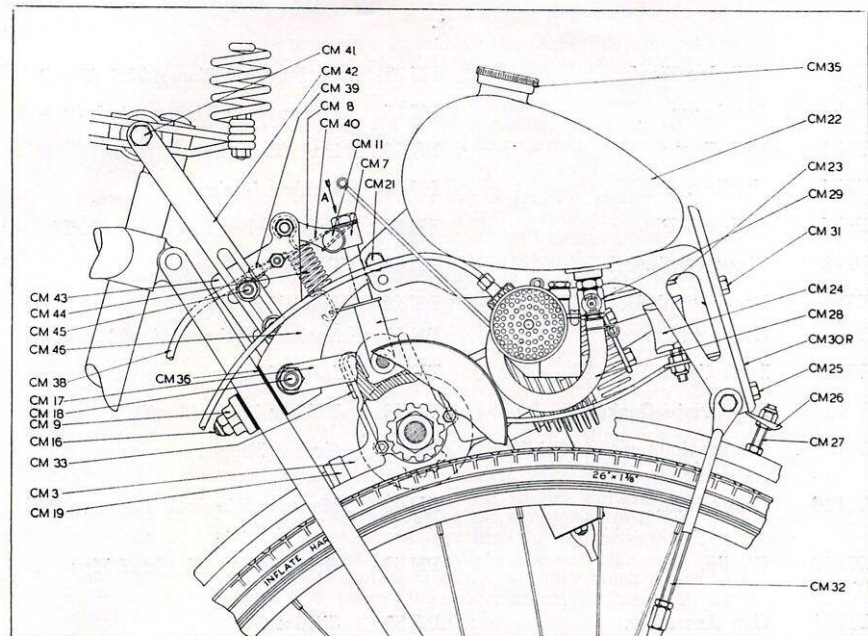
Mod. A—Atmosphere Cooled Model.

Mod. B—Blower Cooled Model.

		Quantity				Quantity	
		Mod. Mod.				Mod. Mod.	
		A	B			A	B
CM 3	Mudflaps	2	2	*CM 30F	Front Number Plate	1	1
*CM 7	Pressure Bracket	1	1	CM 31	Rear Number Plate Bolts	2	2
CM 8	Swivel Link	1	1	CM 32	Rear Stay Complete	2	2
CM 9	Clamp	1	1	CM 33	Mudflap Spring Clip	2	2
CM 11	Swivel Pin	1	1	CM 35	Filler Cap	1	1
CM 16	Clamp Bolt	1	1	CM 36	Rubber Packing	2	2
CM 17	U Bolt Link	1	1	CM 38	Clutch Cable Outer Case	1	1
CM 18	U Bolt	1	1	CM 39	Clutch Case Thrust		
CM 21	Tank Bolts	2	2		Nipple	1	1
CM 22	Petrol Tank	1	1	CM 40	Clutch Cable	1	1
CM 23	Engine Bracket	1	1	CM 41	Thrust Arm Bolt	1	1
CM 24	Flexible Mounting	1	1	CM 42	Thrust Arm	2	2
CM 25	Number Plate Bolts			CM 43	Bracket	1	1
	(Large)	2	2	CM 44	Lifting Spring	1	1
CM 26	Rear Bracket	1	1	CM 45	Bracket Bolts	2	2
CM 27	Rear Bracket Bolt	1	1	CM 46	Main Mounting Bracket	1	—
CM 28	Petrol Pipe (Short)	1	—	CM 46B	Main Mounting Bracket		
CM 29	Petrol Tap (Push Type)	1	—		with Carb. Attachment	—	1
CM 30R	Rear Number Plate	1	1	CM 47	Spring	1	1

*In the interests of progress, the manufacturers reserve the right to alter the specification of any 'Teagle' product at any time without giving prior notice.*

# PARTS LIST—MODEL A (ATMOSPHERE COOLED)



		Quantity				Quantity	
		Mod. Mod.				Mod. Mod.	
		A	B			A	B
CM 49	Spacer Tube	2	2	*CM 60	Clutch Bracket Washer	8	8
CM 50	Induction Flange (Elbow)	—	1	*CM 65	Carburettor Mounting Bracket	1	—
CM 51	Induction Pipe	—	1	*CM 66	Carburettor Mounting Bracket Screws	2	—
CM 52	Petrol Pipe (Long)	—	1	*CM 67	U Bolt Spacing Washers	4	2
CM 53	Feed Pipe Spring Clip	1	1	*CM 70	Induction Flange (Offset)	1	—
CM 54	Petrol Pipe Spring Clip	1	1	*CM 71	Feed Pipe (Short)	1	—
*CM 58	Cable Bolt (Clutch)	1	1				
*CM 59	Tee Bracket Washer	2	2				

\* Denotes the actual part is not shown.

## TOOLS

2 BA x OBA Flat Spanners.  
 3/16 in. x 1/4 in. Whit Flat Spanner.  
 5/16 in. x 3/8 in. Whit Flat Spanner.  
 7/16 in. Whit Flat Spanner.  
 1/2 in. x 3/16 in. Whit Tubular Spanner.  
 Screwdriver.

## PARTS NOT LISTED

Handlebar Clutch Lever.  
 Handlebar Throttle Control Lever.  
 Licence Holder.  
 Rear Light.

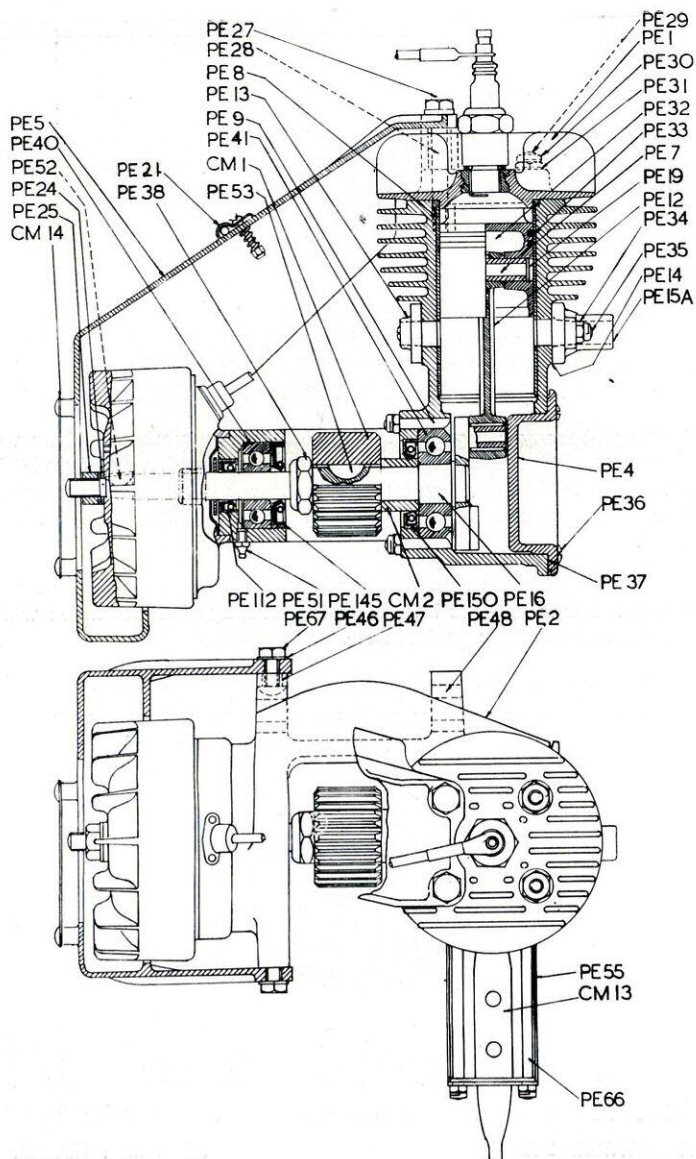
*It is preferable to obtain magneto, carburettor and other proprietary parts from the manufacturers thereof or their agents. Our Guarantee does not cover parts made by other manufacturers.*

# ENGINE PARTS LIST



PE 1	Cylinder Head.	PE 34	Carburettor Flange Nut (2 off).
PE 2	Crankcase.	PE 35	Carburettor Flange Stud (2 off).
PE 4	End Cover.	PE 36	End Cover Screw (6 off).
PE 5	Cowling.	PE 37	Rubber Gasket.
PE 7	Gudgeon Pin.	PE 38	Drive Roller Lock Nut (L.H.).
PE 8	Liner (Cylinder).	PE 40	Outrigger Bearing.
PE 9	Bearing Gib Bolts (2 off).	PE 41	Main Bearing.
PE 12	Connecting Rod.	PE 46	Spring Washers (4 off).
PE 13	Inlet Cover Plate.	PE 47	Insert Nut.
PE 14	Inlet Plate Gasket.	PE 48	Rubber Bush (2 off).
PE 15A	See previous pages (CM 50 and CM 70).	PE 51	Grease Nipple.
PE 16	Crankshaft.	PE 52	Magneto Woodruff Key (Small) (2 off).
PE 19	Circlip.	PE 53	Drive Roller Woodruff Key (Large).
PE 21	Clip Assembly.	PE 55	Silencer.
PE 24	Magneto Spring Washer (L.H.).	PE 66	Exhaust Studs (2 off).
PE 25	Magneto Retaining Nut (L.H.).	PE 67	Cowling Fixing Screws (Side) (2 off).
PE 27	Cowling Fixing Screws (Top) (2 off).	PE 112	Magneto Oil Seal.
PE 28	Pillar Nuts (2 off).	PE 145	Oil Seal.
PE 29	Cylinder Head Studs (4 off).	PE 150	Crankcase Oil Seal.
PE 30	Cylinder Head Nuts (2 off).	CM 1	Drive Roller.
PE 31	Cylinder Head Spring Washer (4 off).	CM 2	Spacer Sleeve.
PE 32	Piston.	CM 13	Exhaust Tube.
PE 33	Piston Rings (2 off).	CM 14	Name Plate.
Plug with Suppressor—Champion XJ8.		Plug Cover—Lodge R90.	

*When ordering parts give your full name and address, Type of Machine and Machine No. in addition to Part No. required (i.e., Magneto, Carburettor, etc.). If parts are required for a proprietary article, the make of this should also be clearly stated.*



**W. T. TEAGLE (M/C) LTD., BLACKWATER, TRURO**

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# THE *Teagle Cycle motor*

TEAGLE machines are engineered to give you lasting service. Research into IMPROVED DESIGN, new materials, and NEW METHODS OF MANUFACTURE are incessant. COMPETITION to us is THE SPICE OF LIFE, we cherish it. BY INVESTING IN A TEAGLE MACHINE YOU HAVE CHOSEN WISELY.

We have spent many happy hours in producing your machine and we want you to have years of Trouble-free Service, that is the reason we have produced this booklet. We ask you to read it. It is written in very simple language so that we hope the uninitiated will begin to think and the veteran enthusiast will be interested in the unconventional.

Remember that we are as much interested in the success of your machine as you are yourself. Our business is built on manufacturing machines which will always give their owners satisfactory performance.

May our association be long and pleasant. May the service you receive be what you have every right to believe it to be—THE BEST IN THE WORLD.



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