

**Matchless**

**INSTRUCTION BOOK**

**AND**

**SPARE PARTS LIST**

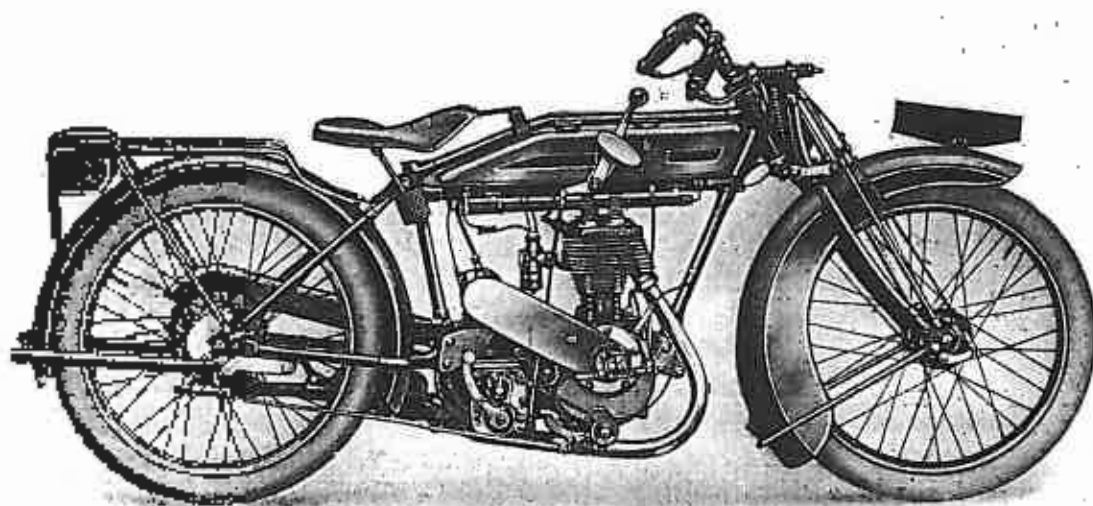
**1924**

**MODEL L/3**

# DRIVING AND ADJUSTMENT INSTRUCTIONS

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*"Matchless" Model "L13."*

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**H. COLLIER & SONS, LIMITED,**  
*Manufacturers,*

Registered Offices :

44-45, PLUMSTEAD ROAD, PLUMSTEAD  
LONDON, S.E. 18, ENGLAND.

Nearest Station :  
WOOLWICH ARSENAL, S.E.C.R.

Factory :  
BURRAGE GROVE & MAXEY ROAD,  
PLUMSTEAD, S.E.

*Telegrams & Cables — "Matchless, Woolwich."*

*Telephone — Woolwich 17 & 18.*

Code { *A.B.C. 5th Edition  
Bentleys,  
& Private Code*

## INTRODUCTION

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Following our previous practice of endeavouring to obtain good service by making every purchaser thoroughly acquainted with the working of his mount, we issue herewith detailed description and adjustment advice on all important units, together with useful illustrations. A careful study of the contents will enable the possessor of a Model " L/3 " to carry out any small adjustments that may be necessary from time to time, and so obtain the best service from his mount, which result is our earnest desire.

The Spares Section has been compiled to enable customers to correctly specify their requirements when renewals of any part are necessary (See Pages 15 and 16) for Instructions re Ordering Parts and particulars of Deposit Account System).

H. COLLIER & SONS, LIMITED.

# General Description.

## STARTING.

Before describing the actual method of starting, it is perhaps advisable to explain the various (gear) lever positions. Neutral or free engine position of the gear is at a point where the extension on gear quadrant engages slot in gear lever (about one-third forward from rearmost position) and at this position engine should always be started.

Ignition is advanced or retarded by means of a lever on the left side of handlebar. To advance spark this lever should be drawn inwards; for starting it should be about three-quarters advanced.

The throttle and air levers for carburettor both open inwards, the top lever operating the air and the lower and longer one the throttle. For starting, throttle should be about one-sixth open, and air completely closed. A small milled edge screw at the bottom of mixing chamber controls the air supply to pilot jet. This screw is accurately set at the works but on account of variation in fuel or temperature it may be found desirable to alter the adjustment occasionally. It should be explained therefore that by unscrewing, more air is admitted thereby weakening the mixture or vice versa, screwing in enriches the mixture by decreasing the air supply. This adjustment only affects carburation on very small throttle openings and dead slow running. The taper needle attached to the throttle piston controls the petrol supply on large throttle openings. To weaken the mixture this needle must be lowered or alternatively to enrich it is necessary to raise same. These remarks are intended only to roughly convey some idea of the carburettor working and owners are advised to refrain from making any adjustments without good cause.

The petrol is turned on when the lever on the tap to which the petrol pipe is attached is parallel to the body of the tap. Assuming that the tank has been filled with petrol and oil of the brand recommended elsewhere, and that all levers and taps have been set as above, to start engine first flood the carburettor by depressing the button on the float chamber until the petrol overflows, then raise the valve by lifting the left side handlebar lever, and at the same time, with the right foot give the kick-starter pedal a sharp and vigorous push downwards, releasing the valve lifter lever when the starter crank is about half way down. This operation should not require at the most more than three or four attempts.

When the engine is started close the throttle slightly to check the engine speed and seated on the cycle, disengage clutch by drawing inward the lever which is situated on the left side of handlebar. Then shift gear lever backward into first gear position, after which gently engage the clutch by releasing slowly the lever which has already been drawn inward.

When fairly under way, smartly declutch and simultaneously shift gear lever forward into second gear position, which is in middle of quadrant, at the same time releasing clutch lever gently but smartly as engine takes up the drive, after which repeat the operation to obtain top gear. In all changes of gear it is advisable to make certain that the gear lever is fairly in engagement with the notches in gear quadrant.

NOTE.—Any difficulty in starting will most probably be caused either by insufficient flooding, too liberal throttle opening or ignition not sufficiently advanced.

## DRIVING.

In general driving it is always advisable to advance the ignition as far as possible without causing knocking. When ascending a steep hill as the engine slows, care should be taken to retard the ignition just sufficiently to prevent knocking, and if a change of gear then be made the ignition should be again advanced, as the speed of the engine is increased by the use of the lower gear. For descending exceptionally steep and dangerous inclines the middle gear should be engaged enabling the frictional resistance of the engine to assist in retarding the descent. We do not, however, under any circumstances, recommend using the bottom gear for this purpose owing to the strain imposed upon the rear driving chain.

It is advisable to ease clutch slightly when rounding acute corners or when travelling slowly on top gear. If this practice is adopted from the first much unnecessary gear changing will be avoided.

### " DON'TS " IN DRIVING.

DO NOT allow engine to labour on high gear on a steep gradient and remember that an easier, faster, and better ascent can be made on the next lower gear.

DO NOT make a practice of starting on second speed.

DO NOT under any circumstances, allow the chains to run very slack or very dry. Either will soon cause trouble, and adjustments are easy. Slack chains will inevitably cause harshness of transmission.

DO NOT force engine or drive above a maximum speed of 25 m.p.h. for the first 500 miles. Mention is made of this warning on account of the natural desire of a new owner to ascertain his mount's maximum capabilities. However, until all bearings are well run in, etc., it is advisable to refrain from speed bursts and the accompanying possibility of seized bearing, piston rings, etc. The first 500 miles of an engine's existence is far more important than the next 5,000.

DO NOT ignore these instructions or think them too elaborate. They have been compiled at a great amount of trouble, and are the outcome of practical experience extending over many thousand miles riding.

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## LUBRICATION

### ENGINE.

The mechanical oil pump is very carefully set to deliver the correct quantity of oil to the engine and unless the owner has good cause we do not advise attempting to alter the delivery. At all times when starting up from cold a thin film of oily smoke should be apparent in the exhaust, and if at any time this should not be observed although the tell tale indicates that oil is passing, the two screws holding down the top plate

### LUBRICATION—*contd.*

on oil pump should be loosened and the centre barrel (the part with handle extension) turned one division of the indicator in a left hand or contra clockwise direction. The tell tale referred to above consists of a small plunger extension to the oil pump on the delivery side which must lift before oil can pass. Therefore, when oil is passing, this small plunger must necessarily be somewhat extended and at low speeds it will be seen to fluctuate with the action of the plunger of oil pump. It may be explained that at high engine speeds the deliveries of oil from pump are too rapid to allow of the tell tale plunger returning to its normal position between each impulse and therefore it constantly remains in an extended position. The movement of this tell tale must be noticed before and occasionally during each run as this is the only means by which driver can readily observe that the pump is functioning properly. At night time the position of the plunger can be felt quite easily, even though gloves are worn, and it must always be remembered that oil cannot pass into the engine until this tell tale plunger is extended thereby uncovering the oil passage.

WAKEFIELD'S CASTROL "C" OR WAKEFIELD'S "XL" ADVISED.

Of equal importance to the engine is the lubrication of such parts as chains, fork spindles, hub bearings, etc., which should be dealt with systematically as follows:—

#### CHAINS.

It will probably be found that the front chain will receive sufficient lubrication from the engine air release pipe, but, however, this should be inspected periodically and oil injected at rear of chain guard if necessary. The rear chain should be removed occasionally and well soaked in paraffin especially in bad weather, and after carefully wiping should then be soaked in molten tallow. A good soaking in engine oil will serve as a poorer substitute.

#### FORK SPINDLES.

Every 200 miles the lubricators of which there are nine should be filled with oil (Bicycle lubricating oil will serve).

#### GEAR BOX.

Every 500 miles the gear box filling plug should be removed, and the gear box filled to overflowing when the machine is standing level with (preferably) Speedwell Crimsangere which is specially recommended. If this is temporarily unobtainable, Mobiloil C Gear oil may be used.

#### HUBS.

Every 500 miles (or more frequently in continuous bad weather) the lubricators in the centre of both front and rear hubs should have a few drops of oil forced through them. (Engine oil suitable).

In addition to the foregoing, all parts, such as brake and gear rod, joints, etc., should receive a few drops of oil occasionally, particularly in bad weather. Bicycle lubricating oil or engine oil.

# ADJUSTMENTS

## ENGINE.

**To Adjust Inlet Or Exhaust Tappets.** Hold tappet head (top large hexagon) with spanner provided, and slack off lock nut (bottom large hexagon). Then screw down or up, as required, until correct clearance is obtained, after which securely lock in position with lock nut.

**NOTE.**—Correct clearance between tappet head and exhaust valve stem when valve is down on its seating is .006 while that for the inlet is .004. To obtain the best results as regards silence of valve gear these clearances should be accurately maintained and a cheap set of engineers feeler gauges will be found very useful for checking purposes.

### TO ADJUST VALVE LIFTER WIRE.

Slack off large locking nut J/3R 216 and screw small knurled part at the top, in or out until correct adjustment is obtained, after which, lock securely. Care must be taken when adjusting to see that the valve tappets are quite free when valves are down on their seatings.

### TO REMOVE CYLINDER.

First remove sparking plug and petrol pipe. Then unscrew exhaust pipe union nut and carburettor mixing chamber cap, then cylinder holding down nuts, and with the piston at the bottom of its stroke, lift off the cylinder.

The re-assembling should be carried out in the reverse order. Before refitting cylinder, the interior, together with the piston, should be carefully wiped with a clean calico rag, and afterwards smeared with perfectly clean engine oil. Too much care cannot be exercised to prevent the admission of any dust or foreign matter, and while on this subject we particularly warn owners against the usual practice of using the top of the tank as a resting place for nuts and pins, etc., which can at the least jar fall into crankcase interior while cylinder is removed.

The base of cylinder, just prior to refitting, should be smeared with a little seccotine or quick drying gold size.

After the whole job has been completed and tappets adjusted if necessary (see Instructions) it is advisable to go over all nuts, particularly cylinder holding down nuts.

### TO EXPOSE VALVE TIMING GEAR.

First detach at tank end the suction oil pipe, and to prevent leakage of oil force into the oil pipe union on tank a taper wooden plug. Then detach the oil pipe entirely after which remove the delivery oil pipe, when upon unscrewing the fixing nut, the outer half of magneto chain case may be removed. Next remove the wide spacer nut on chain case supporting bolt, the nut and bolt securing cam shaft and magneto chain sprockets respectively, then with a lever behind the chain case gently force off each sprocket in turn when the rear portion of chain case may be taken away. Next slacken the valve lifter cable adjuster lock nut and screw the adjuster itself down into the tubular barrel until this barrel may be raised to allow the cable end to be detached. Next remove all timing cover screws, when the cover with valve lifter parts intact may be gently forced off.

### **TO REMOVE CAM WHEEL.**

After removing timing gear cover as described, turn engine slowly until marks on cam wheel and small pinion coincide, when cam wheel may be withdrawn.

### **TO REPLACE CAM WHEEL AND TIMING COVER, ETC.**

First see that the marked tooth on small pinion is vertical, then holding the cam levers and valve lifter lever up with the fingers gently introduce the cam wheel with the mark on same coinciding with that on the small pinion. Then holding the valve lifting lever up with a piece of wire or screwdriver gently slide the cover and valve lifting cam over their respective spindles. When about 1/2 inch from home the screwdriver may be withdrawn and the cover gently pressed home, after which the fixing screws should be firmly tightened.

NOTE.—It is advisable to smear the edge of the cover with seccotine or quick drying gold size just before fitting. For retiming of magneto see below.

### **TO REMOVE MAGNETO.**

Remove magneto chain and sprockets, also magneto chain case. (See To Expose Timing Gear). Then detach sparking plug cable from sparking plug and air frame clips. Then disconnect magneto control wire and after removing the two bolts securing the magneto to platform, the whole is ready to be lifted clear.

NOTE. When replacing, care must be exercised to fix magneto with sprockets exactly in line with one another. This should be tested with a straight edge (12 inch rule will serve).

### **TO RE-TIME MAGNETO.**

Revolve the engine by hand until piston is approximately one-quarter of an inch from top of compression stroke (i.e., the stroke upwards immediately after inlet valve has closed).

NOTE.—To ascertain position of piston, remove compression tap and insert a piece of stout wire, preferably of sufficient length to reach piston when at bottom, then with ignition lever in fully advanced position, and magneto sprocket loose on shaft (the other sprocket being previously tightened), turn the magneto armature backwards until the points are just about to break. Holding carefully in this position tighten up the magneto sprocket bolt securely.

### **TO DISMANTLE HUB BEARINGS.**

After wheels have been removed (see Removing Wheels), withdraw brake cover plate. Then unscrew adjusting cone and from the opposite side draw out spindle. Care should be taken to prevent the balls from slipping into the hub interior, a good means of securing these balls while assembling is to apply a small quantity of good quality grease.



### **TO ADJUST MAGNETO CHAIN.**

It will be observed that magneto chain adjustment is obtained by sliding the magneto platform back upon the engine cradle plates, by means of the adjuster situated on the down seat tube.

Correct chain adjustment is such that when the top of chain is lightly pressed up and down a whip of about  $\frac{1}{8}$  inch to  $\frac{1}{4}$  inch, is obtained.

To adjust chain slack off the two nuts on gear box studs and screw the chain adjuster referred to above in a clockwise direction to tighten or in the opposite direction to slacken, after which securely tighten down gear box stud nuts.

### **TO INSPECT GEAR BOX INTERIOR**

To remove gear box end plate for examination of gears, disconnect the clutch control wire by slackening off the adjustment, when the nipple can be slipped out of the small operating arm. After removing the seven nuts securing cover plate, gently draw off the latter.

NOTE.—While the end plate is being removed, a pan or some receptacle must be placed underneath to catch the oil, the bulk of which will run out. When re-assembling, the faces of the end plate and gear box must be thoroughly cleaned, and a new paper washer used if the oil one has been damaged. Preferably coat with quick-drying gold size.

### **GEAR ROD ADJUSTMENT.**

To adjust gear rod, disconnect pin which passes through top yoke end of gear rod and slack off locking nut. Then screw yoke end up or down until correct adjustment is obtained after which replace yoke end pin and securely lock with locking nut.

When the gear is correctly adjusted the gear lever should move an equal amount either side of the neutral notch without engaging either the middle or low gear.

### **CLUTCH ADJUSTMENT.**

In the event of clutch slip being experienced the adjustment of clutch operating cable should be suspected. When correctly adjusted it should be possible to move the clutch actuating worm (part to which lower end of cable is attached) forward slightly with the fingers and if this free movement cannot be felt the cable stop should be adjusted accordingly. If necessary the bolt securing the clutch worm lever may be slackened and the worm portion revolved slightly backward to provide slacker cable adjustment or forward to tighten.

### **TO ADJUST FRONT CHAIN.**

Slack off the two nuts securing gear box to aluminium bracket which rests on the engine cradle plates, also the bolts which pass through cradle plates immediately above gear box, and slide gear box in the required direction, by means of the adjuster which passes through the frame bracket at foot of saddle tube.

### **To Adjust Front Chain—contd.**

Correct adjustment of chain should allow a movement of  $\frac{1}{4}$  in. to  $\frac{1}{2}$  in., when chain is pressed up and down. Care must be taken after adjustment has been made to securely tighten the top gear box fixing nuts, and side bolts referred to above in the order mentioned.

**WARNING.**—The various nuts securing gear box must be carefully and thoroughly tightened after any adjustment has been made, otherwise the chain will show a tendency to tighten front chain and slacken rear.

### **TO ADJUST REAR CHAIN.**

Put down rear stand, then slack off rear wheel spindle nuts and bolt which secures brake cover plate to special lug on frame tube. Then adjust chain as required, by means of the bolts which pass through each of the fork ends, after which securely tighten spindle nuts and bolt securing brake cover plate. Tension of chain should be tried in a number of places, and the correct adjustment (which should allow a whip of  $\frac{1}{4}$  in. to  $\frac{1}{2}$  in. when chain is pressed up and down), should be obtained for the tightest place.

**NOTE.**—Before tightening rear chain the adjustment of front chain should be inspected, and if attention to each is required the latter should be treated first.

### **TO ADJUST FRONT FORKS.**

Adjustment to front fork spindles for side wear. The need for adjustment at this part will be apparent by a creaking noise when steering head is turned abruptly with machine stationary.

First ascertain which spindle or spindles require adjustment, and slack off both lock nuts. Then by means of the squared end, turn the spindle clockwise to take up slack, or anti-clockwise to give more freedom after which tighten up the lock nuts securely.

Care is necessary in this operation to guard against over-tightening when the fork will be stiff in action, and will most likely refuse to function.

**NOTE.**—The nut on squared end is left hand thread.

### **TO ADJUST STEERING HEAD.**

The steering head should be occasionally tested for adjustment by exerting pressure upwards from the extreme tips of the handlebars. Should any shake be apparent slack off handlebar clip bolt and tighten down the large nut which encircles the handlebar stem until all signs of slackness have disappeared, after which securely tighten clip bolt nut.

**IMPORTANT.**—To guard against unconsciously overtightening the head bearings, the effect of which is extremely difficult steering, it is advisable to jack up the front of machine (a box of suitable height under crankcase will serve) in order that all shake may be taken up satisfactorily and the steering head left perfectly free.

### TO REMOVE REAR WHEEL

Put down rear stand. Then disconnect rear brake rod, and rear chain connecting link, after which release wheel axle nuts and remove the bolt securing brake cover plate. The wheel is then ready to be removed by drawing same backward until axle is free from fork ends.

### TO REMOVE FRONT WHEEL.

Put down front stand. Then disconnect front brake rod at bottom end and remove the bolt which secures brake cover plate to lug on fork girder. Then slack off axle nuts and with a stout screwdriver or tyre lever gently spring each side of the fork out, at the same time pressing wheel down, when the wheel will drop out.

NOTE.—It is advisable to first put rear stand down as front stand is not wide enough to provide a safe balance.

### TO ADJUST WHEEL BEARINGS.

To adjust either back or front wheel first loosen the left side axle nut. Then with the thin cone adjusting spanner, turn the cone slightly in a right hand direction, and when wheel is free from shake, tighten axle nut securely.

NOTE.—It is advisable to verify adjustment of bearing after axle nut has been retightened.

### PERIODICAL INSPECTION OF NUTS (IMPORTANT).

It is advisable to periodically run over all important nuts. Much valuable time may be saved by a few minutes so spent at various intervals. The most likely parts to be requiring attention are given below in your own interests.

Wheel axle nuts, all mudguard nuts, nuts securing brake cover plate, engine bolt nuts, and stand bolts and nuts.

### CLEANING.

If the machine is used to any extent in bad weather, for mud removing, a small hose is almost indispensable, but when using same care should be exercised not to direct water on to the engine and magneto or other such parts. If a hose is not available, soak dirt with paraffin before removing. Do not attempt to rub or brush mud off an enamel surface when dry, or the polish will soon be destroyed. For engine, magneto, etc., a good stiff paint brush and a pot of petrol is preferable.

## Stoppages and the Likely Causes

ENGINE SUDDENLY STOPS. Probable cause:

- Petrol low in tank.
- Dirt in petrol pipe.
- Choked jet.
- Water in float chamber.
- Choked petrol pipe or tap.
- Air lock in tank.

### Stoppages and the Likely Causes—*contd.*

ENGINE RUNS BADLY. Probable cause.

- Valve sticking.
- Weak valve spring.
- Plug points too close.
- Water on plug.
- Plug oily or sooted.
- Air leakage (due to carburettor being disturbed).
- Paraffin in petrol, or bad petrol.
- Valve seating burnt.
- Faulty magneto contacts.

ENGINE WILL NOT START. Probable cause:

- Too liberal throttle opening.
- Valve stuck up.
- Water on plug.
- Choked jet.
- Valve or valves not seating properly.

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## LEGAL MATTER.

To comply with the law relating to motorcycles the owner of a "Matchless" Model 'L/3' must:

1. Hold a driver's licence, which can be obtained from the Chief Constable or Corporation of a County Borough, or from the County Council. The charge for this licence is 5/- yearly, and must be renewed annually from the date of issue. A motor-car driver's licence covers the driving of a motorcycle.
2. Apply to the Taxation Department of the Local Authority of the district in which the vehicle is to be ordinarily kept, for Inland Revenue Licence and Registration Form RF 1/2 (Motorcycles only). The address of the above Taxation Department can be obtained by enquiry at a Post Office.
3. The form RF 1/2 when obtained must be filled in and returned, accompanied by a remittance of £3/0/0 if used solo, and £4/0/0 if desired for use with sidecar, and in some districts evidence that the vehicle to be licenced is new and has not previously been registered may be demanded. Manufacturers' or Agents' invoice will serve.
4. See that his front plate is illuminated at night on both sides. See that his machine, if used with sidecar, is provided with a lamp on the extreme near side of same showing a light forward, and is also provided with a lamp which shows a red light to the rear. The law regarding this matter does not state any particular place in which the rear lamp must be fixed.
5. Never drive at a speed which is dangerous to the public.

**Legal Matter—contd.**

6. Wherever necessary, give audible and sufficient warning by horn or other instrument of the approach of his motorcycle.

For registration purposes, the following particulars will be required :—

Weight of cycle unladen	... ..	220-lbs.
Weight of sidecar (if requested only)	... ..	100-lbs.
If sidecar is detachable (if requested only)	... ..	Yes
Description or type of motorcycle	... ..	" Matchless "
		Motorcycle.
Position of front number plate	... ..	On front mudguard visible from either side.
Position of rear number plate	... ..	On back-end of carrier behind saddle and visible from the rear.

## Guarantee Terms and Conditions.

We give the following Guarantee with our motorcycles instead of the Guarantee implied by statute or otherwise as to the quality of fitness of such machines for the purpose of motorcycling, and such implied Guarantee being in all cases excluded. In the case of machines which have been used for " Hiring out " or racing purposes, or in respect of which our trade mark or manufacturing number has been removed, no Guarantee of any kind is given or is to be implied.

WE GUARANTEE, subject to the conditions mentioned below, that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship : but this Guarantee is to extend and be in force for six months only from date of purchase, and the damages for which we make ourselves responsible under this guarantee are limited to the replacement of any part which may have proved defective.

WE UNDERTAKE, subject to the conditions mentioned below, to make good at any time within six months any defects in these respects. As motor-cycles are easily liable to derangements by neglect or misuse, this Guarantee does not apply to defects caused by wear and tear, misuse or neglect.

### REPAIRS

Any motorcycle sent to us to be plated, enamelled or repaired will be repaired upon same conditions, i.e., we Guarantee that all precautions which are usual and reasonable, have been taken by us to secure excellence of material and workmanship, and this Guarantee is in lieu, and in exclusion, of any common law or statute warranty, and the damages recoverable are limited to the cost of any further work which may be necessary to amend and make good the work found to be defective.

## **CONDITIONS.**

If a defective part should be found in our motorcycles it must be sent to us, carriage paid, and accompanied by an intimation from the sender that he desires to have it repaired free of charge under our Guarantee; and he must also furnish us at the same time with the number of the machine, the name of the Agent from whom he purchased, and the date of purchase.

Failing compliance with the above, no notice will be taken of anything which may arrive, but such articles will lie here at the risk of the senders; and this Guarantee, or any implied Guarantee shall not be enforceable.

We guarantee only those machines which are bought either direct from us or from one of our duly authorised agents, and under no other conditions.

We do not guarantee the specialities of other firms, such as tyres, saddles, chains, lamps, etc., or of any component part supplied to the order of the purchaser differing from our standard specification supplied with our motorcycles or otherwise.

### **THE TERM "AGENT."**

is used in a complimentary sense only, and those firms whom we style our agents are not authorised to advertise, incur any debts or transact any business whatsoever on our account other than the sale of goods which they may have purchased from us; nor are they authorised to give warranty or make any representation on our behalf other than those contained in the above Guarantee.

### **MACHINE NUMBERS.**

The frame number will be found stamped on the right hand side of lug under saddle.

The engine number is stamped on the aluminium crankcase, transmission side, immediately beneath cylinder base.

H. COLLIER & SONS, LIMITED

## INTRODUCTION.

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We have pleasure in presenting this Spares List for the " Matchless " ' L/3 ' 1924 Model.

Every part likely to be required can readily be found by reference to illustrations contained therein.

Every part has a distinctive number, and care should be taken to order correct part, calling same by the name specified, and giving the part number.

Read carefully rules on pages 15 and 16.

We are at all times willing to give estimates for parts or repairs, and also give to all customers the benefit of our advice regarding any query.

H. COLLIER & SONS, LIMITED.

### **TERMS OF BUSINESS.**

Our invariable rule in this department is net cash with order. Remittance to £1 in value may be sent by Postal Order, but over this amount it is advisable to remit by cheque. Cheques to be made payable to H. Collier & Sons, Ltd., and crossed. When making remittance by Telegraph Money Order, the name and address of sender should be included, as, unless this is done, the Post Office do not give this information in the telegram. We frequently receive Telegraph Money Orders without sender's name, with the result that we cannot trace by whom the amount is sent, and we have to wait until customer writes complaining about delay before the matter can receive any attention. If remittance is not sufficient to pay for postage or carriage, goods will be sent "carriage forward" (Goods train).

All repairs accounts are strictly cash before delivery.

The prices in this list are subject to alteration without notice.

### **DEPOSIT ACCOUNT.**

We strongly advise all owners of "Matchless" motorcycles to take advantage of our "Deposit System." It often occurs that parts are required by return, but customers not having a current account, there is the inevitable delay of "pro forma" invoice being sent, and we have to wait receipt of his remittance before the goods can be despatched. This delay causes considerable inconvenience to the party concerned, and can be avoided by opening a Deposit Account.

A remittance of not less than £4 entitles a customer to this form of account, and when goods are ordered by 'phone, telegram or letter they will be despatched at the earliest possible moment by the quickest route. Invoices will be sent for all goods supplied, and a statement will be rendered showing amount of deposit in hand when required, and customers will be notified immediately their deposit becomes exhausted, so that they may renew same. We are at all times prepared to return balance of deposit upon request.

Kindly note, when ordering, to mention "Deposit" or quote reference as shown on monthly statements.

### **REPAIRS.**

In case of extensive structural repairs being required, we strongly advise all owners to send machines to our works for attention. It is obvious that manufacturers can do this kind of work better than any repairer.

### **OVERHAULING.**

When sending us a complete motorcycle, engine, gear box or other part with the request that we overhaul same, we understand by the term "overhaul" that it is to be entirely dismantled, thoroughly renovated, any worn part renewed and put in perfect working order. In case a customer desires only certain parts attended to, explicit instructions should be given us to that effect, otherwise cost may be far in excess of what is anticipated.



### **ESTIMATES**

It is becoming a general practice for customers when sending their engines or complete motorcycles to us for repairs, to request a detailed estimate for the necessary repairs before proceeding with the work.

We are always pleased to furnish these estimates, but it must be distinctly understood that only approximate quotations can be given, as, when re-erecting, it is often found that other repairs or new parts are necessary, which it was impossible to locate when dismantling.

In some instances, when an estimate has been submitted, several of the items quoted for are questioned as being unnecessary or not required. We may say that we only include in our quotation new parts and repairs that we consider essential to make the machine suitable and satisfactory for the road.

We much prefer not to undertake a repair (neither do we accept any responsibility) when the estimate for same has been curtailed by the owner, as the parts he may delete are probably the most important to obtain good results.

If an estimate is not accepted, i.e., the parts returned to the owner in their original condition, a nominal charge is made for taking down and re-assembling.

All repair accounts are strictly cash before delivery

### **RULES TO BE OBSERVED.**

1. Parts sent to us for repair, replacement, or as pattern must bear distinctly sender's full name and address. Instructions regarding same must be sent under separate cover, otherwise goods may lie at our works and not be unpacked until instructions regarding same are received.
2. All goods must be consigned to us carriage paid.
3. Do not enclose cash (whether in the form of coin or paper) with goods. Remittance should be sent by letter post for your own protection.
4. Customers having no account with us should not fail to remit at the time of order and also to include postage.
5. When customer has no account, a Telegraph Money Order will ensure immediate attention.
6. When making enquiries respecting any part on order or repair it is advisable to quote date of order.
7. In case of doubt regarding correct names of parts required it is advisable to send old part as pattern.

### **DAMAGE IN TRANSIT.**

Our responsibility ceases when goods leave our works, and claims must be made on carriers in the event of damage occurring in transit. All goods easily damaged by rough handling are consigned (when by rail) at Railway Company's Risk, and all complete combinations consigned by rail, whether crated or otherwise, are until present conditions of transport improve, insured against damage in transit. Any such damage should be immediately reported.

NOTE.—By Railway Companies special regulations, unless damage in transit is reported within 3 days from receipt of goods, no claim can be entertained.

# ENGINE PARTS

## A.

		£	s.	d.
L/3 F. 93	Axle for flywheel (transmission side) ...		6	9
L/3 E. 229	Axle for flywheel (timing gear side) ...		6	9
L/3 E. 37	Axle for flywheel (crankpin) ...		13	0
	See flywheels for other parts ...			

## B.

### BUSHES.

L/3 E. 235	Bush for flywheel axle (timing side) ...		3	9
L/3 E. 234	Bush for camshaft (crankcase side) ...		1	9
L/3 F. 233	Bush for camshaft (outer or cover side) ...		2	0
L/3 E. 89	Bush for gudgeon pin ...		3	3
L/3 E. 38	Bush (hardened steel for roller big end) ...		6	6
L/3 E. 100	Bush (hardened steel for roller bearing transmission side of crankcase) ...		4	6
L/3 E. 108/228	Breather for crankcase (see release valve) ...			

## C.

L/3 F. 200	Cylinder (bare) ...	3	15	0
L/3 E. 64	Cylinder holding down stud (each) ...			6
S.T.D. 3	Nut for same ...			3
L/3 E. 243	Cylinder union nut for exhaust pipe ...	2		9
L/3 E. 221	Cylinder induction nipple or sleeve for carburettor ...	2		0
L/3 E. 220	Locking nut for same ...		10	
L/3 E. 245	Cylinder compression tap ...	2		6
L/3 E. 246	C and A. washer for same ...			2
L/3 E. 204	Cylinder aluminium valve cap (inlet or exhaust) ...	3		0
L/3 E. 293	Crankcase (complete with bushes and studs) ...	3	15	0
L.E. 14	Crankcase bolt long for magneto chain case support ...			9
S.T.D. 3	End nuts for same (each) ...			3
L/3 C. 52	Crankcase bolt long for front chain guard support ...			7
L/3 C. 59	Distance tube for above ...			4
S.T.D. 3	Nuts for above (each) ...			3
L/3 M.D. 50	Special sleeve nut for magneto chain case interior ...			6
L.M.D. 10	Distance tube (engine plate to chain case) ...			5
L.E. 16	Crankcase bolt (short) $\frac{3}{8}$ " diameter ...			7
S.T.D. 3	Nut for same (each) ...			3
L/3 E. 153	Crankcase bolt (short) $\frac{5}{16}$ " diameter ...			6
L.E. 15	Crankcase bolt (long) $\frac{5}{16}$ " diameter ...			6
S.T.D. 4	Nut for above (each) ...			2
L/3 F. 203	Crankcase timing gear cover (see timing gear) ...	6		6
L/3 E. 40	Connecting rod (see also flywheels) ...	9		6

		C.—contd.	£	s.	d.
L/3 E. 232	Camshaft (see timing gear)	... ..			
L/3 E. 207	Cam lever (inlet)	... ..	4	9	
L/3 E. 207	Cam lever (exhaust)	... ..	4	9	
L/3 E. 289	Connecting rod complete with small end bush (and big end bearing complete with crank- pin	... ..	2	1	0
L/3 E. 48	Crank pin assembly only (pin, rollers and outer race)	... ..	1	3	0
<b>D.</b>					
L/3 E. 239	Drain plug for crankcase	... ..			4
<b>E.</b>					
	Engine bolts (see engine plates)	... ..			
L/3 E. 206	Exhaust valve (see Valves)	... ..			
L/3 E. 248	Exhaust pipe (see silencer)	... ..			
L/3 E. 210/222	Exhaust tappet (see timing gear)	... ..			
<b>F.</b>					
<b>FLYWHEELS AND AXLES, ETC.</b>					
L/3 E. 43a	Flywheel (timing gear side)	... ..	13	0	
L/3 E. 43	Flywheel (transmission side)	... ..	13	0	
L/3 E. 37	Flywheel crank pin	... ..	13	0	
L/3 E. 70	Fixing nut for same	... ..		6	
S.T.D. 15	Lock screw for nut (each)	... ..		2	
L/3 E. 93	Flywheel axle (transmission side)	... ..	6	9	
L/3 E. 70	Nut for same (each)	... ..		6	
S.T.D. 15	Lock screw for nut (each)	... ..		2	
L/3 E. 229	Flywheel axle (timing side)	... ..	6	9	
L/3 E. 70	Nut for same (inside)	... ..		6	
S.T.D. 15	Lock screw for nut	... ..		2	
L/3 E. 71	Nut for securing small timing pinion...	... ..		5	
L/3 E. 95	Keys for flywheel axle (each)	... ..		5	
<b>G.</b>					
L/3 E. 90	Gudgeon pin only	... ..	3	9	
L/3 E. 88	Gudgeon pin securing rings (each)	... ..		1	
L/3 E. 89	Gudgeon pin bush (see bushes)	... ..			
L/3 E. 225	Guide for tappet (inlet or exhaust)	... ..	4	3	
L/3 E. 224	Guide for valve (inlet or exhaust)	... ..	3	9	
<b>I.</b>					
L/3 E. 205	Inlet valve (see valves)	... ..			
L/3 E. 224	Inlet valve guide (see tappets)	... ..			
L/3 E. 204	Inlet valve cylinder cap (aluminium) (see valves)	... ..			
L/3 E. 281	Inlet tappet (see valves)	... ..			
L/3 E. 221	Inlet tubular nipple or union	... ..	2	0	
L/3 E. 220	Locking nut for same	... ..		10	



**M.**

		£	s.	d.
	Magneto and parts (see page 35)	...	...	...

**O.**

L/3 E. 239	Oil drain plug for crankcase	...	...	4
L/3 E. 273	Oil delivery pipe (pump to crankcase)	...	4	3
L/3 E. 272	Oil feed pipe (pump to tank)	...	5	3
506J/5475	Oil pump complete	...	19	0
5475/1	Oil pump body only	...	3	0
5475/5	Oil pump centre worm spindle	...	1	0
5475/3	Oil pump worm sleeve	...	1	6
5475/2	Oil pump regulating block (with handle extension)	...	1	6
5475/9	Locking plate for above	...		6
	Screws for plate (per doz.)	...		6
5475/4	Oil pump plunger	...	1	6
5475	Oil pump tell tale complete	...	2	6
5475/2 and 9	Oil pump tell tale plunger and cap only	...		9
L/3 E. 247	Oil pump union for oil pipe	...	3	3
	Oil pump fixing screw (each)	...		1
	Nut for same	...		1
	Oil pipe nipple only (each)	...		3
L/3 E. 284	Oil pipe union nut only (each)	...		4
L/3 E. 269	Special nut for oil pump drive (see timing gear)	...		
L/3 E. 247	Oil pipe union for crankcase	...		3
L/3 E. 287	Oil pipe union and filter for tank	...	2	3

**P.**

L/3 E. 33	Piston (bare)	...	10	0
L/3 E. 288	Piston complete with gudgeon pin and rings	...	16	6
L/3 E. 135	Piston ring (each)	...	1	0
L/3 E. 230	Pinion (small timing)	...	4	6
L/3 E. 71	Nut for fixing same	...		5
L/3 E. 231	Pin or axle for cam levers (see timing gear)	...	2	0
L/3 E. 237	Pin or axle for valve lifter cam (see timing gear)	...	2	0
L.F. 30	Petrol pipe (see carburettor)	...		

**R.**

L/3 E. 286	Release valve complete with pipe	...	5	9
L/3 E. 242	Release valve pipe and top only	...	2	9
L/3 E. 228	Release valve screwed body	...		10
L/3 E. 107	Release valve screwed cap	...	1	4
S.T.D. 4	Nut for securing cap	...		2
S.T.D. 11	Washer for nut	...		1
L/3 E. 240	Release valve diaphragm	...		2
L/3 E. 108	Seating for above	...		9

		R.— <i>contd.</i>		£	s	d.
L/3 E. 143	Rollers for big end (4 each) per set	...	...		3	8
L/3 E. 145	Rollers and cage (assembled) for transmission side of crankcase	...	...		7	0
L/3 E. 100	Hardened steel outer race for same	...	...		4	6
L/3 E. 38	Hardened outer race for big end	...	...		6	6
L/3 E. 207	Rocker or cam lever (inlet)	...	...		4	9
L/3 E. 207	Rocker or cam lever (exhaust)	...	...		4	9

## S.

L/3 E. 158	Sparking plug with C. and A. washer	...	...	5	0	
L/3 E. 246	Sparking plug C. and A. washer only	...	...		2	
L/3 E. 119	Spring for valves (inlet or exhaust) each	...	...		6	
L/3 E. 252	Spring for exhaust valve lifter	...	...		2	
L/3 E. 123	Sprocket for engine shaft (transmission)	...	...	6	6	
L/3 E. 227	Screw for timing gear cover (each)	...	...		7	
L/3 E. 236	Stud for timing gear cover (each)	...	...		5	
S.T.D. 5	Nut for stud	...	...		2	
L/3 E. 122	Sprocket for magneto chain (see magneto)	...	...			
L/3 E. 261	Silencer (aluminium expansion box)	...	...	12	9	
L/3 E. 263	Clip bolt for above, each	...	...		5	
L/3 E. 264	Strap for support to rear end	...	...		5	
L.E. 86/S	Bolt for silencer support strap	...	...		4	
S.T.D. 5	Nut for same	...	...		2	
L/3 E. 262	Silencer tail pipe	...	...	2	6	
L/3 E. 248	Exhaust pipe	...	...	9	6	

## T.

L/3 E. 225	Tappet guide (inlet or exhaust)	...	...	4	3	
L/3 E. 281	Tappet complete (inlet or exhaust)	...	...	2	9	
L/3 E. 222	Tappet body only	...	...	2	0	
L/3 E. 210	Tappet head only	...	...		6	
L/3 E. 223	Tappet head lock nut	...	...		4	
L/3 E. 203a	Timing gear cover (with bush)	...	...	8	3	
L/3 E. 233	Timing gear cover bush (see bushes)	...	...			
L/3 E. 230	Timing gear small pinion	...	...	4	6	
L/3 E. 71	Nut for securing to engine shaft	...	...		5	
L/3 E. 232	Timing gear cam shaft	...	...	1	2	0
L/3 E. 269	Nut for fixing magneto sprocket (special)	...	...		11	
S.T.D. 11	Washer for same	...	...		1	
L/3 E. 207	Inlet valve cam lever	...	...	4	9	
L/3 E. 207	Exhaust valve cam lever	...	...	4	9	
L/3 E. 231	Cam lever axle	...	...	2	0	
L/3 E. 249	Cam lever axle spacing collar	...	...		7	
L/3 E. 237	Timing gear cover screw	...	...		3	
L/3 E. 236	Timing gear cover stud	...	...		5	
S.T.D. 5	Nut for above	...	...		2	

U.

L/3 E. 243	Union nut for exhaust pipe	...	3	3
L/3 E. 284	Union nut for oil pipe	...		4
L/3 E. 247	Union for oil pipe (screws into crankcase)	...		3
L/3 E. 287	Union for oil pipe (screws into tank)	...	2	3
	Nipple for oil pipe (each)	...		3

V.

L/3 E. 205	Valve inlet (stem only), nickel	...	5	0
L/3 E. 282	Valve inlet complete with spring, cap and cotter	...	6	4
L/3 E. 206	Valve exhaust (stem only), stainless	...	6	0
L/3 E. 285	Valve exhaust complete with spring, cap and cotter	...	7	4
L/3 E. 119	Valve spring (each)	...		6
L/3 E. 227	Valve spring cap (bottom) each	...		7
L/3 E. 226	Valve spring cap (top) each	...		5
L/3 E. 204	Valve cap for cylinder (aluminium) each	...	3	0
L/3 E. 250	Valve cotter (each)	...		3
L/3 E. 224	Valve guide (each)	...	3	9
L/3 E. 225	Valve tappet guide (see tappets)	...		
L/3 E. 215	Valve lifter barrel (screwed)	...	1	0
L/3 E. 217	Valve lifter cable adjuster for same	...		7
L/3 E. 216	Locking nut for above	...		4
L/3 E. 212a	Valve lifter guide for shackle rod	...	1	0
L/3 E. 212	Valve lifter lever (inside timing case)	...		6
L/3 E. 211	Valve lifter cam block	...	3	3
L/3 E. 219	Valve lifter cam shackle rod	...	1	4
L/3 E. 238	Pin for above	...		6
S.T.D. 14	Split pin	...		1
L/3 E. 252	Valve lifter spring	...		2
L/3 E. 214	Shackle rod end for cable nipple	...	1	0
L/3 E. 218	Valve lifter cable nipple (engine end)	...		3
L.E. 184	Valve lifter cable nipple (lever end)	...		3
L.E. 35	Valve lifter cable (inner and outer)	...	2	10
L.E. 186	Valve lifter cable (outer only)	...	2	1
L.E. 185	Valve lifter cable (inner only)	...		9
L.F. 119	Valve lifter lever (see handlebars)	...		

ENGINE PLATES AND BOLTS.

L/3 E. 253	Rear engine plate (left or right)	...	1	8
L/3 E. 254	Front engine plate (left or right)	...		9
L/3 F.R. 58	Footrest plate (left side)	...		8
L/3 F.R. 59	Footrest plate (right side)	...		8
L.E. 14	Engine plate bolt $\frac{3}{8}$ " long for magneto chain case	...		9
L.E. 16	Engine plate bolt $\frac{3}{8}$ " short	...		7
S.T.D. 3	Nuts for above (each)	...		3

**Engine Plates and Bolts—contd.**

			£	s.	d.
L.E.	15	Footrest plate engine bolts 5/16" long (each)			5
L/3 E.	239	Engine bolt 5/16" short for crankcase ...			5
L.E.	15	Engine plate for frame lug (front) ...			5
L.F.	61	Engine plate bolt for frame lug (rear top) ...			5
L.E.	15	Engine plate bolt for frame lug (rear lower)			5
L.F.	61	Engine plate bolt for clamping gear box (each)			5
S.T.D.	4	Nuts for above bolts (each) ...			2

**GEAR BOX.**

L.S.	1.	Gear box shell only ...	2	0	0
L.S.	2	Gear box end plate ...		16	0
L.S.	3	Gear box main driving shaft ...		13	6
L.S.	4	Layshaft only ...		13	6
L.S.	5	Main shaft high speed or sleeve pinion ...		16	0
L.S.	6	Middle gear sliding pinion for mainshaft ...		8	6
L.S.	7	Middle gear sliding pinion for layshaft ...		10	0
L.S.	8	Layshaft pinion... ..		5	0
L.S.	9	Main shaft pinion ... ..		4	0
L.S.	10	Low gear and kickstarter pinion ... ..		9	0
L.S.	11	Kickstarter shaft or axle—supplied only ...		12	6
L.S.	12	Layshaft bush —assembled ...			
L.S.	13	Kickstarter pawl ... ..		1	3
L.S.	14a	Kickstarter pawl pin ... ..			3
L.S.	17	Kickstarter crank return spring cover ...		1	0
L.S.	18	Kickstarter crank return spring ... ..		1	0
L.S.	19	Kickstarter crank stop spring ... ..			7
L.S.	20a	Kickstarter crank relief cam ... ..			3
L.S.	31	Sprocket for rear chain ... ..		7	6
L.S.	79	Sprocket fixing nut ... ..			9
C.S.	63	Chain sprocket locking plate ... ..			5
S.	35	Screw for same ... ..			1
C.S.	43	K.S. Pawl Spring ... ..			1
C.S.	44	K.S. Pawl Spring plunger ... ..			3
L.S.	32	Ball bearing cup ... ..			3
L.S.	33	Kickstarter axle bush ... ..		1	6
L.S.	34	Striking gear fork ... ..		6	6
L.S.	35a	Striking gear lever ... ..		6	6
L.S.	36	Oil retainer cap ... ..			3
L.S.	37	Rocking shaft lever bush ... ..		2	0
L.S.	38	Rocking shaft end bush or cap ... ..		1	6
L.S.	39	Rocking shaft ... ..		1	4
L.S.	40	Rocking shaft nut ... ..			6
L.S.	45	Compensator spring for rocking shaft ...			5
L.S.	75	Striking fork plate or slipper ... ..		2	6
L.E.	17	Gear box top guide plate ... ..		6	9
S.	172	Kickstarter crank cotter pin ... ..			2
S.	15	Nut for same ... ..			2
P	70	Washer ... ..			1





**GEAR BOX—contd**

			£	s.	d.
L.S.	2a	Gear box end plate paper washer ... ..			1
L.S.	58	Kickstarter crank ... ..	12	6	
C.S.	24	Ball bearing for layshaft or main shaft ... ..	8	9	
C.S.	8a	Gear box filling or drain plug ... ..		9	
C.S.	67	Packing or adjusting washers (each) ... ..		1	
T.S.	6	Gear box fixing stud nut (each) ... ..		3	
T.S.	5	Spring washer for same (each) ... ..		2	
T.S.	4	Gear box stud (each) ... ..		5	
C.S.	10	Gear box end plate nuts (each) ... ..		2	
C.S.	9	Gear box end plate stud (each) ... ..		3	
C.S.	143	Bolt for securing kickstarter crank spring ... ..		3	
L/3 E.	265	Gear box adjuster (for front chain) ... ..	1	4	
L/3 E.	271	Special long bolt for same ... ..		7	
C.S.	20a	Main axle thrust washer ... ..	1	6	

**CLUTCH PARTS.**

L.S.	50b	$\frac{1}{2}$ rollers (each) ... ..			2
L.S.	50	Roller cage ... ..	2	0	
L.S.	46	Clutch centre ... ..	13	6	
L.S.	47	Clutch sprocket ... ..	1	6	0
T.S.	49a	Clutch outer plate ... ..	2	6	
T.S.	50	Clutch back plate ... ..	2	6	
C.S.	166	Clutch centre plate ... ..	2	6	
C.S.	171	Clutch friction plate with inserts ... ..	5	0	
T.S.	77	Clutch spring cup ... ..	3	0	
T.S.	52a	Clutch spring ... ..	1	8	
C.S.	173	Clutch end cap ... ..	1	6	
L.S.	82a	Clutch rod ... ..		10	
L.S.	94	Clutch thrust pin ... ..		10	
C.S.	172	Clutch spring nut ... ..		9	
T.S.	55	Clutch spring collar (fits over above) ... ..		6	
C.S.	13	Axle nut (fixing clutch hub) ... ..		5	
C.S.	14	Axle nut lock washer ... ..		1	
C.S.	15a	Axle key for clutch hub ... ..		3	
C.S.	68	Clutch worm nut ... ..	5	0	
C.S.	69a	Clutch worm ... ..	1	9	
C.S.	70a	Clutch worm lever ... ..	2	6	
J.	200	Clutch worm lever pinch bolt ... ..		1	
C.S.	72	Clutch cable adjuster support stud ... ..	1	0	
C.S.	106	Clutch cable stop with nut ... ..		9	
L.E.	52	Clutch cable (inner and outer) with nipples ... ..	5	6	
L.E.	53	Clutch cable (outer) ... ..	3	6	
L.E.	54	Clutch cable inner ... ..	1	6	
L.E.	55	Clutch cable spring ... ..		3	
C.S.	100b	Clutch handlebar lever (see handlebars) complete ... ..	12	0	
C.S.	100	Lever portion only ... ..	4	0	
C.S.	104	Lever fulcrum bolt and nut ... ..		3	
C.S.X.	90	Lever clip screw (each) ... ..		1	

## GEAR CHANGE PARTS

			£	s.	d.
L.G.L.	10	Gear lever complete with gate...	1	7	6
L.G.L.	8	Gate with tank plate only		6	6
L.G.L.	6	Gate fixing bolt			3
L.G.L.	3	Fulcrum stud for gear lever		1	0
L.S.	120	Cap nut for same			5
L.S.	121	Spring washer			4
S.T.D.	5	Nut for gate fixing stud			2
L.S.	107	Gear lever with ball		5	0
L.G.L.	9	Gear rod complete		4	11
C.S.	87	Gear rod yoke end (each)			10
C.S.	37	Lock nut for same			1
C.S.	97	Yoke end pin			2
C.S.	108	Split pin for same (per dozen)			6

## FRAME AND FORK PARTS.

L/3 F.	201	Complete frame	5	2	6
L.F.	44	Steering head race (each)		1	9
L.F.	123	Seat lug bolt and saddle support			8
S.T.D.	4	Nut for same (each)			2
L.F.	124	Distance tube (each)			4
S.T.D.	11	Washer (each)			1
L.F.	40	Rear chain adjuster bolts (see also chains)			9
L.F.	73	Front forks complete with stand and mud-guard	4	19	6
L.F.	13	Front forks complete (less stand and mudguard)	3	12	6
F.	13/3	Fork crown and stem		8	4
L.F.	56	Steering head adjusting nut (encircling handle-bar stem)		1	2
F.	13/4	Fork head clip		3	1
F.	14/16/17	Pinch bolt and nut for same			4
S.F.	7/3	Top buffer spring long rear			8
S.F.	10/2	Top buffer spring short front			5
F.	13/11/12	Buffer spring T piece L.H. and spindle	} per pr.	2	11
		Buffer spring T piece R.H. " " "			
S.F.	8/3	Buffer spring thrust nut (each)			4
S.F.	11/2	Cap lock nut for same (each)			4
F.	13/13/14	Buffer spring cross piece with lubricator (pair)	2		5
S.F.	15/1	Lubricator only for above			2
S.F.	6/5	Vertical coil spring complete (each)	2		10
S.F.	9/2	Screw only for above (each)			2
S.F.	1/8	Nut for screw (per dozen)		1	7
L.F.	13/a	Front fork girder portion only	2	2	1
L.F.	115	Crown and stem with electric lamp bracket		18	0
F.	13/6/7	{ Bottom fork spindle link or shackle L.H. } pr.		1	3
		{ Bottom fork spindle link or shackle R.H. }			
S.F.	4/5	Bottom fork spindle 7/16" (each)			4½
S F	1/3 and 4	{ L.H. nut for same (each)			2
		{ R.H. nut for same (each)			2

**Frame and Fork Parts—contd**

			£	s.	d.
S.F.	4'6	Top fork spindle $\frac{3}{8}$ " (each) ... ..			4
S.F.	1/3 and 4	{ L.H. nut for same (each) ... ..			2
		{ R.H. nut for same (each) ... ..			2
L.F.	45	Fork crown ball race ... ..		1	9
L.F.	71	Set of steering head balls (42 in No.) ...			7

**LUGGAGE CARRIER AND TOOL BOX.**

L.F.	36	Luggage carrier complete ... ..	14		3
L.F.	43	Bolt for fixing same (top) ... ..			4
S.T.D.	4	Nut for above ... ..			2
S.T.D.	11	Washer for above ... ..			1

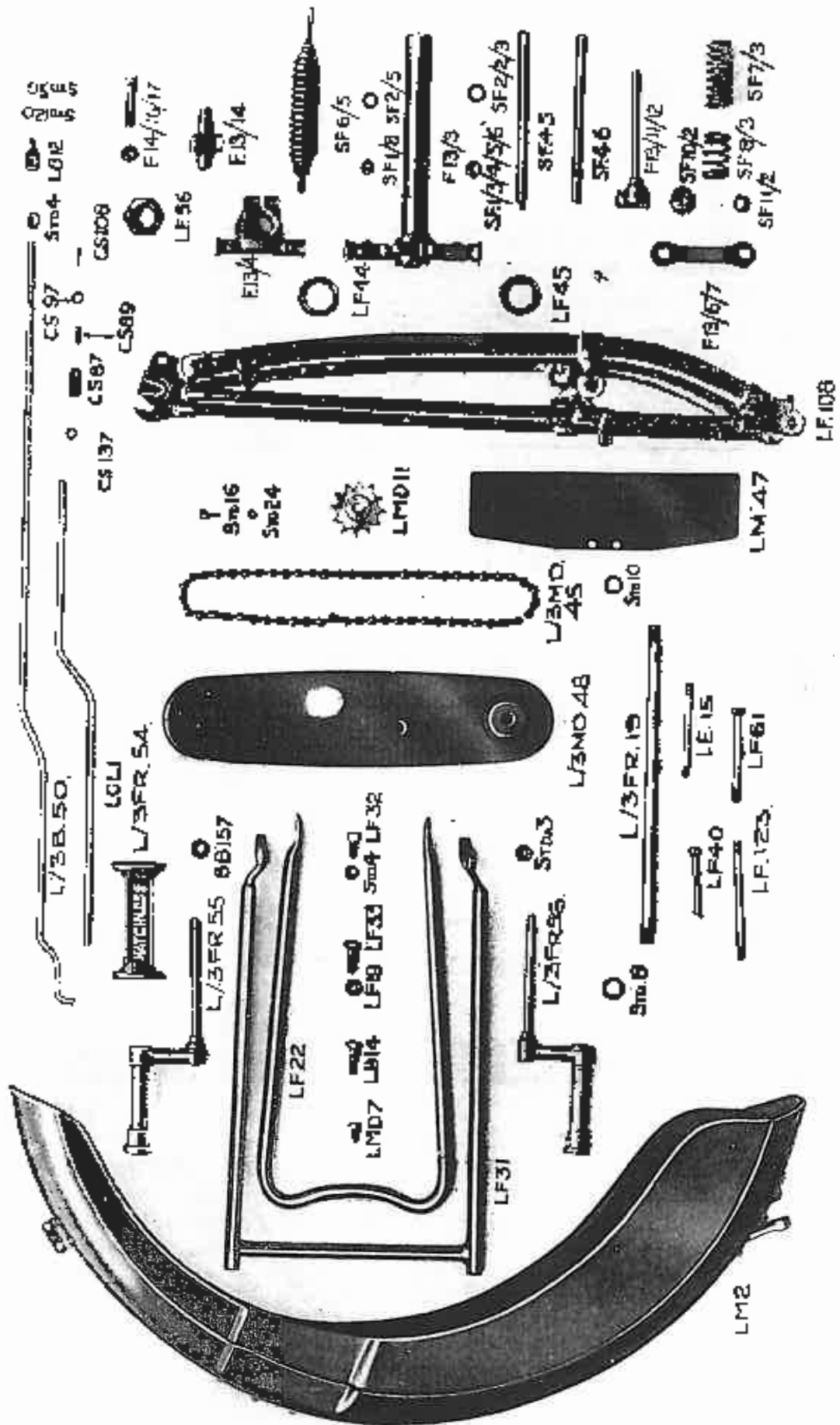
**LUGGAGE CARRIER AND TOOL BOX (Contd.)**

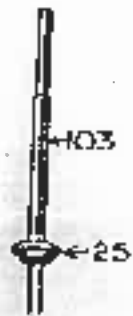
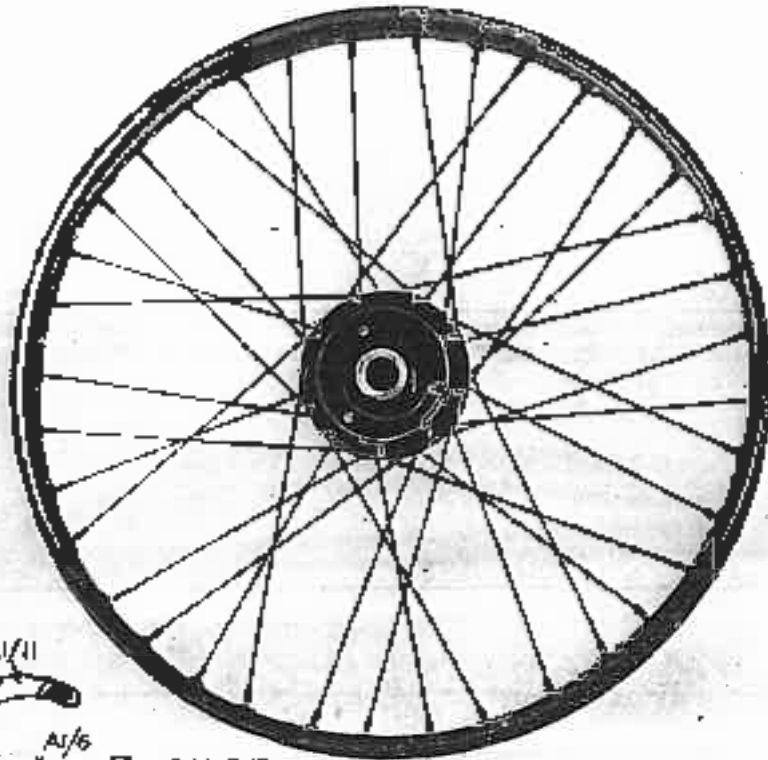
H.M.	7	Bolt for fixing carrier to rear mudguard ...			3
S.T.D.	5	Nut for above ... ..			2
L.F.	39	Bolt for fixing carrier (bottom end) each ...			2
L.F.	151	Tool box for luggage carrier ... ..	15		0
H.M.	7	Bolts for fixing same (each) ... ..			3
S.T.D.	5	Nut for above (each) ... ..			2
L.F.	161	Rear number plate (see also mudguards) ...	1		1
L.F.	150	Tool box lock ... ..	1		2

**MUDGUARDS AND MUDSHIELDS.**

L.M.	2	Front mudguard ... ..	15		6
H.M.	7	Front mudguard fixing bolt (each) ... ..			3
S.T.D.	5	Nut for same ... ..			2
L.M.	32	Front stand fixing screw ... ..			4
L.M.	1	Rear mudguard ... ..	12		9
L.F.	41	Rear mudguard fixing bolt for chain stay bridge ... ..			6
L.F.	41	Rear mudguard fixing bolt for top stay bridge			6
S.T.D.	5	Nut for above ... ..			2
H.M.	7	Bolt for fixing rear mudguard to carrier ...			3
S.T.D.	5	Nut for same ... ..			2
H.M.	7	Bolt for fixing rear mudguard to tool box (each) ... ..			3
S.T.D.	5	Nut for above ... ..			2
L.M.	29	Rear mudguard stand clip stud ... ..			4
S.T.D.	5	Nut for same inside mudguard ... ..			2
L.M.	28	Stand clip spring ... ..			1
L.M.	30	Stand clip spring cup nut ... ..			3
S.T.D.	5	Lock nut for above ... ..			2
L/3 M.	34 & 35	Mudshields complete with all fittings ...	12		6
L/3 M.	39	Left side shield only ... ..	4		9
L/3 M.	38	Right side shield only ... ..	4		9
L/3 M.	40	Top mudshield rod ... ..		10	
S.T.D.	4	Nuts for same (each) ... ..			2
S.T.D.	11	Washers for same (each) ... ..			1
L/3 M.	42	Top mudshield rod distance tube (right) ...			5
L/3 M.	36	Top mudshield rod distance tube (left) ...			5







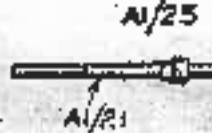
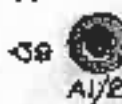
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A1/9 31 29



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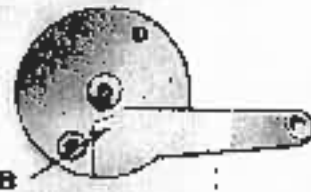
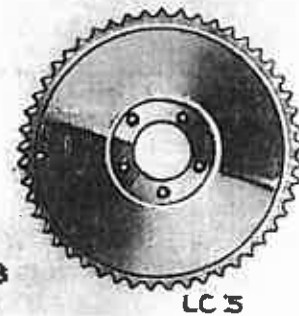
A1/17



35 34



A1/36

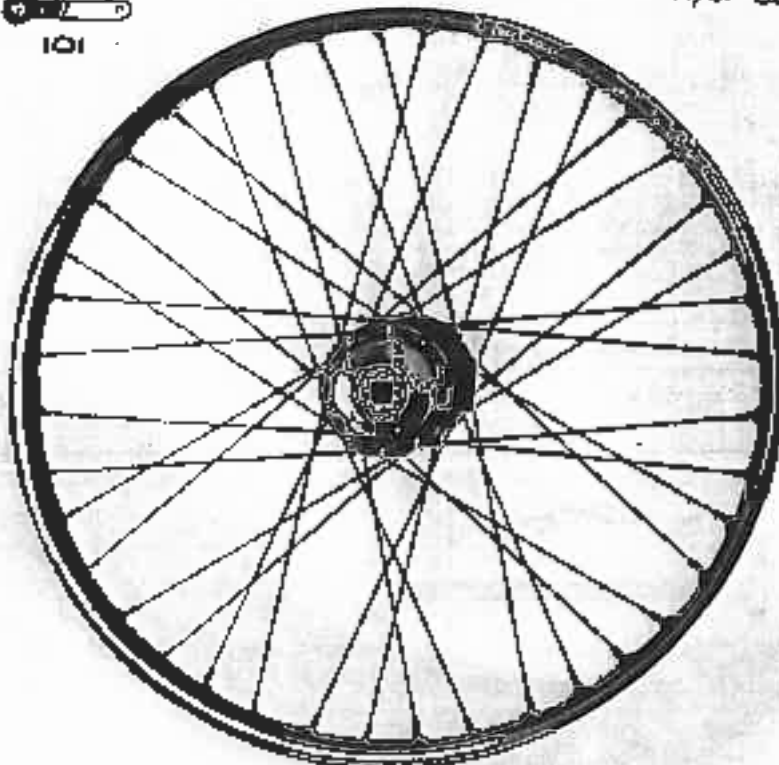


B1 57 59 58

31 27



58/74



111 112 109

**Mudguards and Mudshields—contd.**

			£	s.	d.
L/3 M.	41	Bottom mudshield rod	...	...	8
S.T.D.	4	Nut for same (each)	...	...	2
S.T.D.	11	Washer for same (each)	...	...	1
L/3 M.	43	Bottom mudshield rod distance tube (right)	...	...	5
L/3 M.	37	Bottom mudshield rod distance tube (left)	...	...	5
L.M.	62	Front stand step complete	...	2	0
L.M.	63	Rear stand step complete	...	2	3

**TANK AND FITTINGS.**

L/3 T.	153	Tank complete with all fittings	...	3	15	6
L/3 T.	150	Tank less all fittings	...	2	6	0
L.T.	31	Petrol tap and filter	...	4	2	
L.T.	31a	Filter only	...			6
L.T.	32	Petrol drain tap	...	1	9	
L.F.	39	Petrol pipe (for AMAC. carburettor)	...	4	0	
L.E.	30	Petrol pipe (for B. & B. carburettor)	...	4	0	
L.T.	28	Petrol tank filler cap (glass top)	...	2	0	
L.T.	28a	Glass top only for above	...			9
L.T.	30	Gauze strainer for petrol tank	...	1	9	
L.T.	28	Oil tank filler cap	...	1	7	
L.T.	55	Tank fixing bolts (each)	...			6
L.T.	53	Tank fixing bolt rubber pad	...			5
L.T.	56	Tank fixing bolt washer	...			2
L/3 E.	287	Oil pipe connection and filter combined	...	2	3	

**STANDS.**

L.F.	31	Rear stand	...	10	9	
L.F.	38	Fixing bolts (each)	...			3
L.F.	19	Nut for same (each)	...			4
L.F.	22	Front stand	...	4	6	
L.F.	32	Fixing bolts (each)	...			3
L.F.	159	Nut for above	...			2
S.T.D.	11	Washer for above	...			1
L.M.	32	Front stand fixing screw (see also mudguard)	...			4

**REAR WHEEL AND BRAKE PARTS.**

L.F.	63	Rear wheel complete with tyre	...	6	9	3
L.F.	66	Rear wheel complete less tyre	...	4	7	9
L.F.	110	Rear wheel, less all fittings	...	1	13	6
L.C.	5	Rear wheel chain sprocket (Solo)	...		8	0
L.C.	26	Rear wheel chain sprocket (Sidcar)	...	10	6	
L.C.	6	Fixing screws for same (each)	...			2
S.T.D.	11	Washer for same (each)	...			1
W.B.	54	Rear wheel brake drum	...	4	9	
W.B.	109	Fixing bolts (each)	...			3
W.B.	110	Nut for same (each)	...			3
L.B.	20	Rear wheel brake cover plate with shoes, etc.	...	1	6	7
		Cover plate only	...		8	0





Rear Wheel and Brake Parts--contd.			£	s.	d.
W.B. 56/60 61/74	Brake shoes (per pair) with linings and con- traction spring	...	I	I	3
W.B. 60/61	Ferodo linings only, with rivets (per set)	...		6	0
W.B. 74	Spring for brake shoes	...	I		9
W.B. 57	Brake shoe fulcrum stud	...			10
W.B. 58	Nut for same	...			4
W.B. 81	Brake shoe expander	...	I		7
W.B. 101	Brake shoe expander lever	...			9
W.B. 27	Nut for above	...			3
W.B. 31	Spring washer	...			2
L/3 B. 50	Rear brake rod	...	2		5
S.T.D. 4	Nut for same (each)	...			2
S.T.D. 36	Split pin for front end	...			I
L.B. 12	Brake rod toggle or cross head	...			8
S.T.D. 4	Nut for same	...			2
S.T.D. 11	Washer	...			I
L/3 B. 51	Rear brake pedal	...	4		9
L/3 B. 52	Rear brake pedal return spring	...			4
L/3 B. 53	Rear brake pedal fulcrum stud	...	2		0
S.T.D. 3	Nut for same	...			3
S.T.D. 10	Washer	...			1
L.B. 5	Long bolt for fixing fulcrum stud	...			6
S.T.D. 3	Nut for same	...			3
L.B. 6	Distance tube for same	...			4
W. 103	Rear wheel spindle	...	3		9
W.B. 25	Rear wheel spindle fixed cone...	...	I		6
W.B. 22	Rear wheel spindle adjusting cone	...	I		8
W.B. 23	Dust cap for above	...			4
W.B. 107	Spindle nuts (each)	...			6
W.B. 113	Spindle washer, plain (sprocket side)...	...			3
W.B. 17	Spindle washer, domed	...			3
L.B. 14	Bolt for anchoring brake cover plate...	...			7
S.T.D. 4	Nut for same	...			2
W.B. 39	Set of rear wheel balls (per set)	...	2		0
W.B. 38	Rear hub lubricator	...			6
L.F. 181	Rim only enamelled	...	8		6

**FRONT WHEEL AND BRAKE PARTS.**

L.F. 62	Front wheel complete with tyre	...	4	13	9
L.F. 52	Front wheel complete less tyre	...	2	12	3
L.F. 111	Front wheel, less all fittings	...	I	6	9
AL/6a	Front brake cover plate with shoes, etc.	...	16		3
AI/7/13/14/15	Shoes only (per pair) with linings and con- traction spring	...	9		11
AI/14/15	Ferodo linings only (with rivets) (per set)	...	4		2
AI/13	Spring for contracting shoes	...	I		3
AI/12/29	{ Fulcrum stud for shoes	...			6
	{ Nut for same	...			3
L.B. 21	Washer	...			2
AI/9	Front shoe expander	...	I		6

		<b>Front Wheel and Break Parts—contd.</b>		<i>l</i>	<i>s</i>	<i>d</i>
AI/11		Front shoe expander lever	...			6
		Nut for same	...			3
		Washer	...			1
AI/18		Anchoring link for cover plate	...			6
AI/26a		Bolt for same (cover end)	...			4
L.B.	22	Spigot nut for same	...			2
AI/26		Shouldered bolt for anchor link (fork end of same)	...			4
AI/27		Nut for above	...			2
AI/31		Washer	...			1
AI/36		Front brake rod only	...	1		2
AI/33		Yoke end	...	1		0
AI/37		Yoke end locking nut	...			2
AI/34		Yoke end pin	...			4
AI/35		Split pin for same (per dozen)	...			6
L.B.	13	Reducing nipple for top end of rod	...			6
L.B.	23	Front brake cable (inner) with nipples	...			9
L.B.	24	Front brake cable (outer) with thimbles	...	1		7
L.B.	25	Front brake cable spring box	...	1		0
L.B.	26	Front brake spring for spring box	...			3
L.B.	27	Front brake cable stop and lock nut	...			7
L.F.	119	Front brake handlebar lever (see handlebars)	...			
AI/21		Front hub spindle	...	2		0
AI/25		Front hub spindle fixed cone	...	1		6
AI/22/23/24		{ Front hub spindle adjusting cone } { Dust cap for above and washer }	...	2		0
AI/28		Spindle nuts (each)	...			5
AI/17		Spindle washer (domed)	...			3
AI/30		Spindle washer (plain)	...			2
AI/30		Spindle washer (plain)	...			2
AI/39		Set of front wheel balls	...	2		0
AI/38		Front hub lubricator	...			6
L.F.	181	Rim only enamelled	...	8		6
<b>CHAIN GUARDS AND CHAINS.</b>						
L.C.	3	Rear chain guard	...	7		6
L.F.	37	Bolt for fixing same (rear end)	...			3
S.T.D.	4	Nut for above	...			2
L.F.	61	Bolt for front end (see also engine bolts)	...			5
L/3 C.	52	Front chain guard	...	15		0
L/3 F.	200	Stud for fixing rear end	...			4
L/3 C.	53	Distance tube for same	...			5
L/3 C.	59	Long bolt for front end support (see also engine bolts)	...			6
L/3 C.	59	Distance tube for same	...			5
S.T.D.	3	Nuts for bolt (each)	...			3
L/3 M.D.	48	Magneto chain case	...	12		0
L.E.	14	Long support bolt (see also engine bolts)	...			9
L.M.D.	10	Distance tube	...			5
L/3 M.D.	50	Special long nut for support bolt	...			5

		<b>Chain Guards and Chains -contd.</b>		<i>£</i>	<i>s.</i>	<i>d.</i>
S.T.D.	3	Standard nuts for support bolt (each)	...			3
L.C.	13	Rear driving chain $\frac{1}{2} \times \frac{1}{2}$ (120 pitches)	...	1	0	0
L.C.	14	Front driving chain $\frac{1}{2} \times \frac{1}{2}$ (64 pitches)	...	10		8
L.C.	19	Detachable connecting link	...			5
L.C.	20	Spring clip only for above	...			2
L.C.	21	Cranked link	...			7
L/3 M.D.	45	Magneto chain (endless $\frac{1}{2} \times \frac{1}{2}$ ) 54 pitches	...	3	0	
L.C.	25	Chain rivet extractor	...	3		7

**FOOTREST AND PARTS.**

L/3 F.R.	19	Footrest rod only	...	1		3
S.T.D.	1	Nuts for same (each)	...			5
L/3 F.R.	55	Left side footrest hanger (less pad)	...	5		6
L/3 F.R.	56	Right side footrest hanger (less pad)	...	5		6
L/3 F.R.	54	Footrest rubber pad assembled with holder	...	2		2
L/3 F.R.	51	Footrest rubber pad only	...			10
L/3 F.R.	52	Pad centre tube...	...			5
L/3 F.R.	53	Pad flanges (each)	...			3
L.F.R.	11	Special spigot washer for footrest spindle	...			3
S.T.D.	3	Nut for same	...			3
		Footrest engine plates (see engine plates)	...			

**HANDLEBAR.**

L.F.	114	Handlebar with rubber grips	...	17		0
L.F.	27	Handlebar, less grips	...	13		9
L.F.	119	Inverted lever (left or right) complete	...	7		6
L.F.	120	Lever portion only	...	3		9
L.F.	121	Fulcrum screw for same	...			4
L.F.	122	Nut for above	...			2
S.T.D.	20	Screw for securing lever body to handlebar	...			2

**SADDLE AND PARTS.**

L.F.	60	Saddle complete with springs	...	18		6
H.F.	134	Nose bush (hardened steel)	...			9
H.F.	135	Saddle nose bolt	...			6
S.T.D.	4	Nut for same	...			2
L.F.	123	Long spring support bolt	...			9
L.F.	124	Distance tubes (each)	...			5
S.T.D.	4	Nuts for bolt (each)	...			2
S.T.D.	11	Washers for bolt (each)	...			1
L.F.	60a	Saddle spring only	...	2		6
L.F.	60b	Nuts for saddle spring post (each)	...			3

**MAGNETO AND PARTS.**

L.M.D.	12	Complete magneto	...	3	15	0
L.M.D.	41b	Contact breaker only complete	...	1	2	6
..	4152/4122	Contact screws only (pair)	...	12		6

		<b>Magnetos and Parts--contd.</b>		£	s.	d.
L.M.D. 7p	High tension pick up	...	...		3	6
L.M.D. 1052	Carbon brush only	} (per pair)	...		1	0
	Spring for same		...			
L.M.D. 23	Sparking plug cable with terminal end	...	...		1	0
L.M.D. 11	Magneto chain sprocket	...	...		3	0
L.M.D. 175	Bolt for same	...	...			2
L/3 E. 122	Sprocket for camshaft end (see also engine)	...	...		3	6
L/3 E. 269	Special nut for fixing same	...	...			11
L.E. 3	Magneto platform or base	...	...		6	9
L.M.D. 33	Bolt for fixing magneto to same	...	...			2
S.T.D. 5	Nut for above	...	...			2
L.M.D. 9	Magneto chain adjuster stud	...	...			5
L.M.D. 8	Special double headed nut for same	...	...			9
L.M.D. 25	Magneto advance and retard cable (inner)	...	...			9
L.M.D. 26	Magneto advance and retard cable (outer)	...	...		2	0
L.M.D. 27	Handlebar lever for above complete	...	...		6	9

### MECHANICAL OIL PUMP AND PARTS.

5061/5475	Oil pump complete	...	...	19	0
5475	Tell tale only (complete)	...	...	2	6
5475/2 and 9	Tell tale plunger with cap only	...	...		9
5475/1	Aluminium pump body	...	...	3	0
5475/5	Steel worm shaft	...	...	1	0
54/5/2	Large centre regulating block	...	...	1	6
5475/9	Cap for same	...	...		6
	5/32" Screws for fixing cap (per dozen)	...	...		6
5475/4	Pump plunger (steel)	...	...	1	6
5475/3	Pump body brass worm sleeve	...	...	1	6
5475/6 i	Pump body screwed oil pipe connection	...	...		4
L/3 E. 272	Oil pipe suction side (pump to tank)	...	...	5	3
L/3 E. 273	Oil pipe delivery side (pump to engine)	...	...	4	3
	Oil pipe unions (each)	...	...		3
	Oil pipe union nuts (each)	...	...		4
	Oil pump screwed plug and fibre washer	...	...		9

### CARBURETTOR B. & B.

L.E. 19	Complete carburettor (special type)	...	...	2	17	0
B. & B. 1	Float chamber body only	...	...	10	3	
B. & B. 2	Float chamber cap and tickler	...	...	7	8	
B. & B. 5/6	Float chamber needle valve	...	...	1	2	
B. & B. 9	Float	...	...	2	6	
B. & B. 11	Main jet complete	...	...	1	0	
B. & B. 21/22a	Fibre washer for same	...	...		1	
B. & B. 13	Jet taper needle	...	...	1	9	
B. & B. 4	Needle holder and screw	...	...		7	
B. & B. 30	Spraying chamber	...	...	8	6	

**Carburettor B. & B.—contd.**

		£	s.	d.
B. & B. 33/36	Spraying chamber cap with bushes	2	4	
B. & B. 49	Spraying chamber cap lock ring	1	3	
B. & B. 52	Pilot jet (early or late type)		10	
B. & B. 54/5	Pilot jet air screw and spring		7	
B. & B. 50	Clip and bolt for inlet port	1	8	
B. & B. 50a	Bolt only		4	
B. & B. 48	Gauze strainer for air port		5	
B. & B. 49	Cap for same	1	3	
B. & B. 38	Throttle valve	4	7	
B. & B. 38	Air valve	2	2	
B. & B. 41	Valve springs (pair)	1	2	
L.E. 59	Control levers complete	10	3	
C. 5	Air lever only	2	11	
C. 4	Throttle lever only	2	11	
C. 22/23	Control cables (inner and outer) complete each	5	9	

**CARBURETTOR A.M.A.C.**

A.M.A.C. 1	Complete carburettor	2	17	0
A.M.A.C. 2	Float chamber complete	1	3	0
A.M.A.C. 3	Float chamber cap only		4	3
A.M.A.C. 4	Float only		2	6
A.M.A.C. 5	Float needle only		1	1
A.M.A.C. 6	Jet holder		1	9
A.M.A.C. 7	Jets (each)			5
A.M.A.C. 8	Spraying chamber only		8	6
A.M.A.C. 9	Spraying chamber cap (with bushes)		2	6
A.M.A.C. 10	Spraying chamber cap lock ring		1	6
A.M.A.C. 11	Sprayer		5	1
A.M.A.C. 12	Large nut for fixing same		1	6
A.M.A.C. 13	Throttle valve only		3	10
A.M.A.C. 14	Air valve only		3	0
A.M.A.C. 15	Valve springs (each)			3
A.M.A.C. 16	Control complete with levers, cables and valves	1	7	6
A.M.A.C. 17	Control cables only (each) inner and outer		3	0
A.M.A.C. 18	Control levers complete		11	0
A.M.A.C. 19	Throttle lever only		3	5
A.M.A.C. 20	Air lever only		3	5
A.M.A.C. 21	Clip and bolt for inlet port		2	0
A.M.A.C. 22	Bolt only for above			3
A.M.A.C. 23	Air port cap with gauze		4	6

**EQUIPMENT.**

L.E.Q. 13	Acetylene lamp set complete, comprising Lucas 341 head lamp, 344 tail lamp, generators, all brackets, tubing, etc.	2	18	6
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Equipment—contd.			£	s.	d.
L.E.Q. 14	Head lamp only	... ..	1	3	6
L.E.Q. 15	Tail lamp only	... ..		3	6
L.E.Q. 16	Head lamp burner	... ..	2	1	
L.E.Q. 17	Tail lamp burner	... ..			6
L.E.Q. 18	Generator	... ..	12	6	
L.E.Q. 19	Generator and head lamp combined bracket	... ..	9	0	
L.E.Q. 20	Generator rubber tubing	... ..			6
L.E.Q. 21	Electric head lamp M.B. 31	... ..	1	10	0
L.E.Q. 22	Double filament bulb only	... ..	3	6	
L.E.Q. 23	Tail lamp bulb	... ..	1	6	
L.E.Q. 24	Head lamp cable (per foot)	... ..			2
L.E.Q. 25	Tail lamp cable (per foot)	... ..			2
L.E.Q. 26	Cable head lamp switch to battery (per foot)	... ..			2
L.E.Q. 27	Accumulator in case	... ..	2	10	0
L.E.Q. 28	Case only	... ..	17	6	
L.E.Q. 29	Accumulator only	... ..	1	12	6
L.E.Q. 30	Electric head lamp glass and rim	... ..	5	6	
L.E.Q. 31	Electric head lamp reflector	... ..	4	9	
L.E.Q. 32	Tail lamp	... ..	8	6	
L.E.Q. 33	Cowey Speedometer complete with all fittings	... ..	4	5	0
L.E.Q. 34	Cowey Speedometer gear box	... ..	15	0	
L.E.Q. 35	Cowey Speedometer driving wheel	... ..	3	0	
L.E.Q. 36	Cowey Speedometer driving wheel screw and clamps	... ..	2	0	
L.E.Q. 37	Cowey speedometer driving wheel complete...	... ..	5	0	
L.E.Q. 38	Cowey Speedometer flexible drive complete	... ..	12	6	
L.E.Q. 39	Cowey Speedometer sheath and coil (per ft.)	... ..	1	6	
L.E.Q. 40	Cowey Speedometer cable (per foot)	... ..	1	4	

### TOOLS.

L.T.K. 16	Oil injector	... ..	2	4	
L.T.K. 15	Six inch combination pliers	... ..	4	10	
L.T.K. 13	Six-inch wire screwdriver	... ..	1	7	
L.T.K. 10	Double end forged spanner $\frac{3}{8}$ × $\frac{5}{16}$ ins.	... ..	1	10	
L.T.K. 11	Double end forged spanner $\frac{3}{8}$ × $\frac{1}{2}$	... ..	1	10	
L.T.K. 9	Tappet adjusting spanner	... ..		7	
L.T.K. 1	Thin cone adjusting spanner	... ..		9	
L.T.K. 12	Six-inch adjustable spanner	... ..	7	6	
L.T.K. 14	Tyre lever	... ..	1	1	
L.F. 58	Tyre pump	... ..	4	10	
L.T.K. 2	Valve cap spanner	... ..	2	0	
L.T.K. 5	Magneto spanner	... ..	1	0	
L.T.K. 17	Tool roll only	... ..	3	4	
L.T.K. 7	Tool roll complete with all tools (less pump)	... ..	1	10	9
L.F. 151	Tool box only (see also luggage carrier)	... ..	15	0	

**SIDECAR AND PARTS.**

			£	s.	d.
L.F.	102	Sidecar main frame (with 2 double clip lugs attached)	2	10	6
L.F.	148	Pinch bolt for clip lug (each)			7
S.T.D.	3	Nut for bolt (each)			3
L.F.	104	Sidecar front bent arm...	9		6
L.F.	95	Nut for same			3
L.F.	147	Washer for above			2
L.F.	88	Sidecar front arm clip lug (complete for frame tube)	6		3
L.F.	101	Bolts for clip lug only (each)			4
L.F.	130	Sidecar rear bent arm	10		0
L.F.	95	Nut for same			3
L.F.	147	Washer for above			2
L.F.	88	Sidecar rear arm clip lug (complete for frame tube)	6		3
L.F.	101	Bolts for clip lug only (each)			4
L.F.	89	Clip lug for main sidecar frame attachment to chain stay	5		6
L.F.	101	Bolts for clip lug only (each)			4
L.F.	138	Packing sleeve for clip lug (2 parts)	1		2
L.F.	94	Large bolt for fixing sidecar frame to above clip lug			6
S.T.D.	1	Nut for bolt			5
L.B.D.	6	Sidecar body complete with apron (standard touring)	7	6	6
L.B.D.	12	Apron only	12		9
H.B.D.	58	Apron turn buttons (each)			5
L.F.	91	Sidecar body rear springs (each)	7		3
L.F.	96	Sidecar body rear spring fixing bolt long			4
L.F.	106	Sidecar body rear spring fixing bolt short			4
S.T.D.	4	Nuts for above (each)			2
L.F.	145	Sidecar rear spring pad lug plate	1		1
L.F.	152	Sidecar body front coil spring (each)	1		6
S.T.D.	3	Nut for fixing (bottom end)			3
S.T.D.	10	Washer for nut			1
L.F.	153	Bolt for fixing top end to body			3
L.F.	154	Large washers for same (each)			4
S.T.D.	3	Nut for bolt			3
L.B.D.	1	Sidecar body rear bearer bar	3		3
S.T.D.	4	End nuts for same (each)			3
H.B.D.	14	Spring washer for end (each)			3
S.T.D.	10	Plain washer for end (each)			1
S.T.D.	14	Split pin for end (each)			1
H.B.D.	9	Coach bolts for fixing bearer bar to body			2
H.B.D.	13	Large washer for above			4
H.B.D.	24	Coach bolt nuts (each)			1
L.M.	24	Sidecar mudguard only	12		6
S.T.D.	4	Nuts for fixing to body studs			2
S.T.D.	11	Washer for above			1







