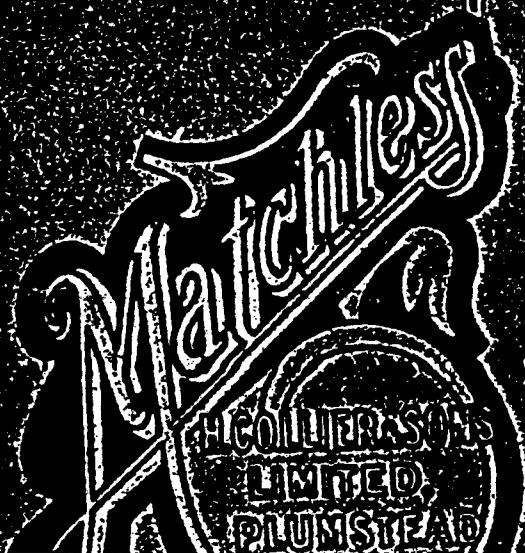


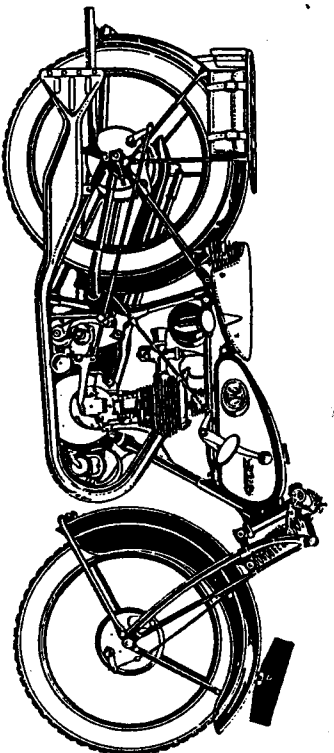
**Matchless**  
MAYBEA RIBBINGTON

**INSTRUCTION BOOK  
AND  
SPARE PARTS LIST**

**MODEL  
T/3 & T/4**



PLUMST  
ADDRESS: 44-45, PLUMST  
INSTRUCTIONS



“Matchless” Model “T/3.”

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

Registered Offices:

44-45, Plumstead Road, Plumstead,  
London, S.E.18, England.

Nearest Station:  
WOOLWICH ARSENAL S.R.

Factories:  
BURRAGE GROVE & MAXEY ROAD  
PLUMSTEAD, S.E.,  
and Mast Pond Wharf, WOOLWICH

Telegrams & Cables — “Matchless, Woolwich.”

Telephone — Woolwich 1010 (4 lines)

Code { A.B.C. 5th Edition  
Benlley's,  
& Private Code.

ALL CORRESPONDENCE TO:

Offices:—44-45, PLUMSTEAD ROAD, LONDON, S.E.18.

## General Information

### STARTING

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

Ignition is advanced or retarded by means of a lever on 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 carburetter 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 to only roughly convey some idea of the carburetter 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 carburetter 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, at the same time releasing clutch lever gently but smartly as engine takes up the drive, after which

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 T/3, T/4 or T/S 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 17 and 18 for Instructions re Ordering Parts and Particulars of Deposit Account System.

MATCHLESS MOTOR CYCLES (COLLIERS) LTD.

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.**—Excessive flooding of carburetter may cause hard starting, particularly in warm weather. In such a case, try the effect of opening compression tap fully and throttle about  $\frac{3}{4}$  to  $\frac{1}{2}$ , closing compression tap immediately the engine starts. In attempting this method, the valve lifter should not be operated.

### 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, as by so doing an abnormal and unfair strain would be imposed upon the rear driving chain under certain circumstances.

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.

## LUBRICATION

### ENGINE

At all times when starting engine from cold a thin film of oily smoke should be observed in the exhaust, and should this not be seen the oil supply should be slightly increased. The oil delivery is set while machines are undergoing road test on the liberal side and unless this somewhat excessive supply causes trouble such as oiled up sparking plug, etc., it should not be reduced until at least 500 miles have been covered by which time most bearings will have settled down. The oil passing into engine interior can be at all times observed through the transparent window of oil pump, and the approximately correct setting (after the initial running in period referred to above) is 18 to 20 drips per minute at about 20 m.p.h. This setting can best be checked by running the engine light at about the same rate, as given by a road speed of 20 m.p.h. and counting the drips for one whole minute. This method of checking will be found quite simple and any alteration found necessary may be made in a second by screwing in or out as the case may be the knurled edge adjusting screw fitted to the side of oil pump body. Screw in, i.e., turn clockwise to reduce the supply and vice versa to increase. Other than above it is impossible to lay down any hard and fast rules for lubricating. It must always be remembered that when in doubt it is safer to err on the generous side. Use only Wakefield Castrol X.L. or Castrol C, the former for preference. Refuse all others and accept only sealed tins. Above all avoid the just as good sort from bulk.

**Note.**—Wakefield Castrol X.L. or Castrol C, specially recommended.

### CHAINS

It will probably be found that the front chain will receive sufficient lubrication from the engine air release valve, 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 molen tallow. A good soaking in engine oil will serve as a poorer substitute.

### FORK SPINDLES

Every 200 miles grease should be forced through each fork spindle by means of the special grease gun provided, until it can be seen exuding from either end of the bearing (Tealemit grease or Wakefield Castrollease recommended).

### 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) Wakefield Castrollease 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 small quantity of grease forced through them. (Wakefield Castrollease suitable).

**Hubs—Continued**

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 (bottom large hexagon) with spanner provided, and slack off lock nut securing tappet head. Then screw head 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 REMOVE CYLINDER**

After 1,500 miles or so have been covered it may be necessary to remove carbon deposit from piston top and cylinder head. The need for this decarbonizing process will be indicated by a tendency to pink or knock when climbing hills, particularly when the engine is hot. To remove cylinder proceed as follows. Firstly detach oil pipe at tank end, the oil supply pipe, and to prevent leakage of oil from the tank force into the oil pipe union a small taper wooden plug. It may perhaps be explained here that a tap is not provided to cut off the oil supply on account of the very real risk of same being forgotten on occasions, as a result of which the entire engine could be easily ruined. Then remove oil tank entirely. Next remove sparking plug, aluminium valve caps and petrol pipe. Then unscrew carburettor chamber cap and gently withdraw throttle and air valves, after which all cylinder holding down nuts may be removed. Now revolve engine until big end of connecting rod is in the foremost position, i.e., nearest magneto, when piston will be well down the cylinder in which position the cylinder may be gently withdrawn leaving exhaust pipe, etc., in position. In the actual withdrawing process it is necessary to rotate the cylinder through 90° in a clock-wise direction in which position the carburettor will be on the left hand-side instead of at rear as normally.

**NOTE.**—Although not absolutely necessary, it is perhaps preferable to remove the silencer and exhaust pipe assembly prior to the actual removal of cylinder as the replacement is considerably facilitated thereby.

The re-assembly 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**

Firstly detach at tank end the oil supply pipe, and to prevent leakage of oil from the tank force into the union on the under side of tank a taper wooden plug. Then detach the oil pipe entirely after which the various screws by which the timing gear cover is fixed should be removed. The cover may now 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 up with the fingers, gently introduce the cam wheel with the mark on same coinciding with that on the small pinion. Then gently slide the cover and valve lifting cam into position, 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.

**TO REMOVE MAGNETO**

First withdraw footrest rubber on left side footrest. This rubber is merely a push-on fit. Next remove the two nuts and washers securing outer half of chain cover and remove cover. Then remove the bolt fixing magneto sprocket to magneto armature shaft after which gently force the sprocket off by means of a lever behind same. Then remove the carbon brush holder complete with cable. Now upon removing the two small nuts and cupped washers on the underneath side of magneto platform the magneto may be lifted clear.

**TO RE-TIME MAGNETO**

With sprocket on magneto armature shaft loose, revolve engine carefully until the piston has just passed the top dead centre of firing stroke (this is the top-most position of piston at which both valves are closed). Now fully retard the magneto and taking care not to move the engine from slightly past top centre position (about 1/16 down is the correct position of piston) gently turn the magneto armature in the normal direction of rotation until the contact points are just about to part in which position the sprocket fixing bolt should be carefully and firmly tightened. It is advisable to check the setting after fixing sprocket by again placing the piston in the position of 1/16 down firing stroke or past top dead centre and moving the ignition lever backward, and forward from fully retard to about one third advanced. During this small movement the contact points should be observed to definitely part.

### TO ADJUST MAGNETO CHAIN

It will be observed that provision for magneto chain adjustment has been made by means of slots cut in the magneto platform. To adjust chain it is necessary only to slack off the two small nuts on the underneath side of platform. When these nuts are slackened the magneto may be moved forward or backward as may be required to obtain correct chain tension after which the nuts in question should be carefully re-tightened.

### TO INSPECT GEAR BOX INTERIOR

To remove gear box end plate for examination of gears, first detach silencer and exhaust pipe. Then disconnect the clutch control wire. This can best be done by turning the clutch worm in a clockwise direction (by means of a spanner applied to the flattened end of the worm spindle) whereupon the cable nipple can be readily detached from the worm lever via the slot provided. Upon removing the two gear rod yoke end pins and the seven nuts securing the gear box end plate, same can be gently drawn off.

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 old one has been damaged. Preferably coat with quick drying gold size.

### 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) to and fro 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 back to provide slacker cable adjustment, or forward to tighten. Should the clutch on the other hand develop harshness even with correctly adjusted chains, the clutch plates should be carefully removed and those provided with Ferodo inserts smeared with a mixture of powdered Graphite and water worked up into a paste. Oil should not be used under any circumstances.

### TO ADJUST FRONT CHAIN

First remove the snap on cover over the gear box fixing bolts (this may easily be prised out of position) then slack off both of the long fixing nuts. Now turn the special double headed adjuster nut in right hand direction to tighten or vice versa to slacken. After the correct adjustment has been obtained the fixing nuts should be firmly tightened down. NOTE.—The adjustment of chain should be tried in various places, and the correct adjustment (which should allow a whip of about  $\frac{3}{8}$  in. when chain is pressed lightly up and down) should be obtained for the tightest place.

NOTE.—It is advisable to remove the outer half of front chain case to enable the correct adjustment to be readily verified.

### TO ADJUST REAR CHAIN

Put down rear stand, then slack off rear wheel spindle nuts. Then adjust chain as required by means of the bolts which pass through each of the fork ends, after which securely tighten spindle nuts. Tension of chain should be tried in a number of places, and the correct adjustment (which should allow a whip of  $\frac{3}{8}$  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.

IMPORTANT.—Adjustment to each side chain adjuster bolt should be equal, otherwise chain alignment with sprockets will not be correct. It must be noted that rear wheel is not intended to be dead central in the chain stays. The distance between the wheel rim and right side chain stay should be  $\frac{1}{8}$  in. less than that from the rim to left side stay. This alignment must be carefully maintained.

NOTE.—In all references to left and right side, it should be understood that the description applies as seen when seated on the cycle, i.e., left side is near side.

### 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 hexagonal end turn the spindle in an anti-clockwise direction (not more than about one eighth of a turn before re-trial) to take up slack or 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.

### 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 the cap nut on top of fork stem must be slackened off and the underneath nut tightened down until all shake has disappeared when carefully lock with the cap locking nut.

IMPORTANT.—To guard against unconsciously over-tightening 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. The wheel is then ready to be removed by drawing same backward until axle is free from fork ends, at the same time twisting in forks to release brake cover plate from its anchorage.

NOTE.—See instructions re wheel alignment (To adjust rear chain).

**TO REMOVE FRONT WHEEL.**

Put down front stand. Then disconnect front brake rod at bottom end. 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 necessary 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, slack adjusting cone lock nut and turn the cone slightly in a right hand direction, and when wheel is almost free from shake, tighten lock nut and axle nut.

NOTE.—It is advisable to verify adjustment of bearing after axle nut has been re-tightened. A slight shake is imperative.

**PERIODICAL INSPECTION OF NUTS, ETC.**

Satisfactory service depends largely upon the necessary immediate attention to details. The old adage "A stitch in time saves nine," applies with particular force to motor cycle maintenance. Make a point of testing the security of all nuts occasionally with a spanner. There is possibly more dissatisfaction and damage caused through neglecting details than for any other reason. It must always be remembered that a motorcycle is a highly specialised piece of engineering, and that while it does not call for great engineering skill in driving, the exercise of a little mechanical sense and the occasional use of a spanner, cleaning cloth, etc., is very necessary. If the maximum of service is to be obtained with the requisite degree of satisfaction. Therefore do not wait until to-morrow, but adjust it now.

**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, allowing air to enter petrol pipe
- Dirt in petrol pipe.
- Choked jet.
- Water in float chamber.
- Choked petrol pipe or tap.
- Air lock in tank.
- Oiled up sparking plug.

**Stoppages and the Likely Causes—Continued**

ENGINE RUNS BADLY. Probable cause.

- Magneto contact breaker sticking.
- Valve sticking.
- Weak valve spring.
- Plug points too close.
- Water on plug.
- Plug oily or sooted.
- Air leakage (due to carburetter being disturbed)
- Paraffin in petrol, or bad petrol.
- Valve seating burnt.
- Faulty or badly adjusted magneto contacts.
- Defective sparking plug cable.

ENGINE WILL NOT START. Probable cause :—

- Too liberal throttle opening.
- Valve stuck up.
- Water on plug, or oiled up plug.
- Choked jet
- Valve or valves not seating properly.
- Insufficient flooding.
- Defective sparking plug cable.
- Magneto contact breaker stuck up.

**LEGAL MATTERS**

NOTE.—In view of the growing public objection to noisy motor-cycles, a word of warning on this subject may not be out of place here. Firstly it has been noted and freely commented upon that much of the noise complained of is unnecessary, being due to injudicious driving as for instance violently accelerating from a standstill, racing the engine when stationary, driving on full throttle when ascending hills in residential districts, etc. Any motorcycle, or for that matter, any motor vehicle driven in this manner creates abnormal noise, and in the interests of all, we earnestly implore every "Matchless" owner to studiously refrain from any of practices enumerated.

To comply with the law relating to motorcycles the owner of a "Matchless" Model T/3 or T/4 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 motor cycle.
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 (Motor cycles 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 os. od., if used solo and £4 os. od., if desired for use with sidecar, and in some districts evidence that the vehicle is to be licensed is new and has not previously been registered may be demanded. Manufacturers' or Agents' invoice will serve. (Above amounts apply to licences extending to December 31st taken out any time prior to March 24th. Quarterly licences



### Legal Matters—Continued

- at 16/6d. and 1s. od., for solo or sidecar respectively are issued between January 1st and March 24th, between March 25th and June 30th, between June 31st and September 30th, and between October 1st and December 31st, or alternatively licences may be obtained to expire on December 31st, on March 25th at £2 9s. 6d. and £3 6s. od. solo or sidecar or on July 1st at 1s. od., and £2 4s. od. respectively.)
- 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 compulsory in some counties only by (bye-law), and is also provided with a lamp which shows a red light to the rear. The law regarding this latter does not state any particular place in which the rear lamp must be fixed.
  - Never drive at a speed which is dangerous to the public.
  - Wherever necessary, give audible and sufficient warning by horn or other instrument of the approach of his motor cycle.
- For registration purposes, the following particulars will be required.
- |   |                            |
|---|----------------------------|
| Weight of cycle unladen ...             | 230 lbs. T/3               |
| 235 " T/4                               |                            |
| Weight of sidecar (if requested only)   | 100 "                      |
| If sidecar is detachable (if requested) | Yes.                       |
| Description or type of motorcycle       | " Matchless " Motor-cycle. |
- 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

We give the following guarantee with our motorcycles, motorcycle combinations and sidecar, which is given in place of any implied conditions, warranties or liabilities whatsoever, statutory or otherwise, all such implied conditions, warranties and liabilities being in all cases excluded. Any statement, description, condition, or representation contained in any catalogue, advertisement, leaflet or other publication shall not be construed as enlarging varying or overriding this guarantee. In the case of machines which have been used for "hiring out" purposes, or racing, or from which the trade mark name 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 the date of purchase, and damages for which we make ourselves responsible under this guarantee are limited to the free supply of a new part in exchange for the part of the motorcycle, motorcycle combination, or sidecar which may have proved defective. We do not undertake to replace or refix, or bear the cost of

### Guarantee—Continued

replacing or refixing, such new part in the motorcycle, motorcycle combination or sidecar. We undertake, subject to the conditions mentioned below, to make good at any time within six months any defects in these respects. As motorcycles, motorcycle combinations, and sidecars are easily liable to derangement by neglect or misuse, this guarantee does not apply to defects caused by wear and tear, misuse or neglect.

The term "misuse" shall include amongst others the following acts:—

- The attaching of a sidecar to the motorcycle in such a manner as to cause damage or calculated to render the latter unsafe when ridden.
- The use of a motorcycle or of a motorcycle and sidecar combined, when carrying more persons or a greater weight than for which the machine was designed by the manufacturers.
- The attaching of a sidecar to a motorcycle by any form of attachment not provided or supplied by the manufacturers or to a motorcycle which is not designed for such use.

Any motorcycle, motorcycle combination or sidecar sent to us to be plated, enamelled or repaired will be repaired upon the following conditions, i.e., we guarantee that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship, such guarantee to extend and be in force for three months only from the time such work shall have been executed or until the expiration of the six months above referred to, and this guarantee is in lieu and in exclusion of any common law or statute warranty or condition, and the damages recoverable are limited to the cost of any further work which may be necessary to amend and made good the work found to be defective.

### CONDITIONS OF GUARANTEE

If a defective part should be found in our motorcycles, motorcycle combinations, or sidecars, or in any part supplied by way of exchange before referred to, it must be sent to us CARRIAGE PAID, and accompanied by an intimation from the owner that he desires to have it repaired or exchanged free of charge under our guarantee, and he must also furnish us at the same time with the number of the machine, the date of the purchase, or the date which the alleged defective part was exchanged as the case may be.

Failing compliance with the above, such articles will be here AT THE RISK OF THE OWNER, and this guarantee and any implied guarantee, warranty or condition shall not be enforceable.

We do not guarantee specialties such as tyres, saddles, chains, lamps, etc., or any component parts supplied to the order of the purchaser differing from standard, specifications supplied with our motorcycles, motorcycle combinations, sidecars or otherwise.

### 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,



**TERMS OF BUSINESS**

Our invariable rule in this department is net cash with order. Remittance to *fr* 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.

**IMPORTANT NOTE** *RF C.O.D.*—Owing to the labour involved and to the fact that the minimum *C.O.D.* fee is 10d., goods to the value of 5/- and over only can be sent on the above system.

**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 £2 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 unduly 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.

**INTRODUCTION**

We have pleasure in presenting this Spares List for the "Matchless" Model "T/3" and "T/4"

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

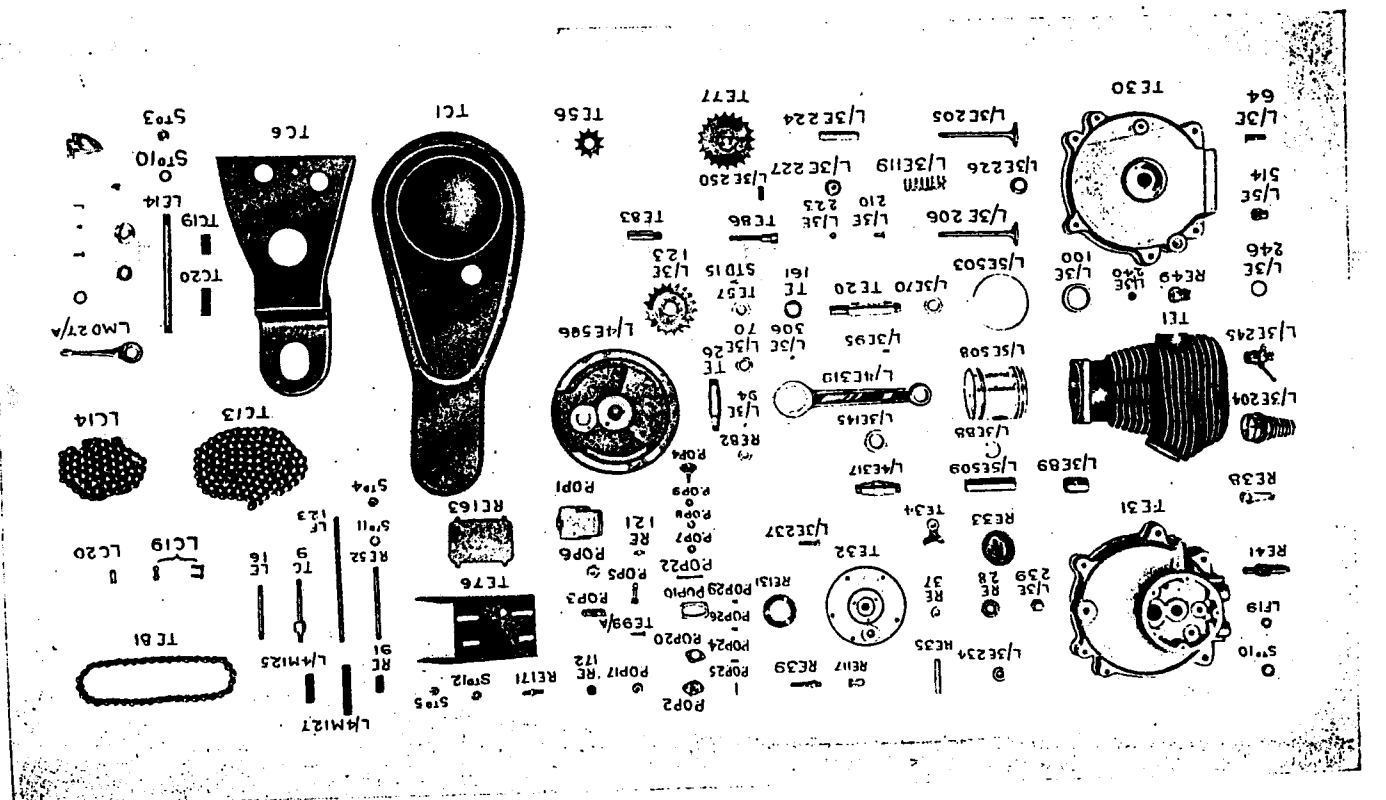
Every part has a distinctive number, and care should be taken to order correct part, calling same by the name specified, and giving the part number.

Read carefully rules on pages 15 & 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.

T.C.	9	Chain case support stud (screws into crankcase)	8	£ s. d.
1/4 M.	125	Spacer tube for above	5	
S.T.D.	4	Nuts for above (each)	2	
S.T.D.	11	Washers for above (each)	1	
T.E.	32	Crankcase timing gear cover	0	
L/4 E.	318	Screws for above (see timing gear)	9	
L/4 E.	319	Connecting rod (bare)	6	
L/4 E.	319/A	Connecting rod with small end bush and big end assembly (crankpin, rollers and nuts)	13	
R.E.	33	Camshaft (see also timing gear)	14	
T.E.	34	Cam lever (inlet or exhaust)	18	
L/4 E.	317	Crankpin (only)	3	
L/3 E.	70	Crankpin rollers (per set)	6	
L/3 E.	515	Crankpin nuts (each)	9	
L/3 E.	291	Cylinder base paper washers (T/3)	0	
L/3 E.	291	Cylinder base paper washers (T/4)	1	
L/3 E.	239	Drain plug for crankcase	1	
T.E.	25	Engine bolts (see crankcase)	4	
L/4 E.	506	Exhaust valve (see valves)		
L/4 E.	317	Exhaust pipe (see silencer)		
L/3 E.	70	Exhaust tappet (see timing gear)		
S.T.D.	15	Flywheel (timing gear side)	13	
T.E.	20	Flywheel (transmission side)	13	
L/3 E.	70	Flywheel crankpin	6	
S.T.D.	15	Fixing nuts for above (each)	6	
T.E.	20	Lock screws for above	2	
L/3 E.	70	Flywheel axle transmission side	3	
S.T.D.	15	Fixing nut for above	6	
T.E.	26	Flywheel axle timing side	2	
L/3 E.	70	Fixing nut for above	6	
R.E.	82	Nut for securing small pinion	2	
L/3 E.	95	Key for flywheel axle	5	
L/3 E.	90	Gudgeon pin only (T/4 347 c.c.)	3	
L/5 E.	509	Gudgeon pin only (T/3 498 c.c.)	0	
L/3 E.	89	Gudgeon pin bush	4	
T.E.	83	Guide for tappet	3	
L/3 E.	224	Guide for valve	0	
L/3 E.	88	Gudgeon pin securing rings	9	





U.

P/OP. 14 Union nut for oil pipe (pump end) ...  
 L/3 E. 284 Union nut for oil pipe (tank end) ...  
 P/OP 13 Union or nipple for oil pipe (Pump end) ...  
 L/3 E. 287 Union and filter for oil pipe (screws into tank) ...

P/OP 14 Nipple for oil pipe (pump end) ...

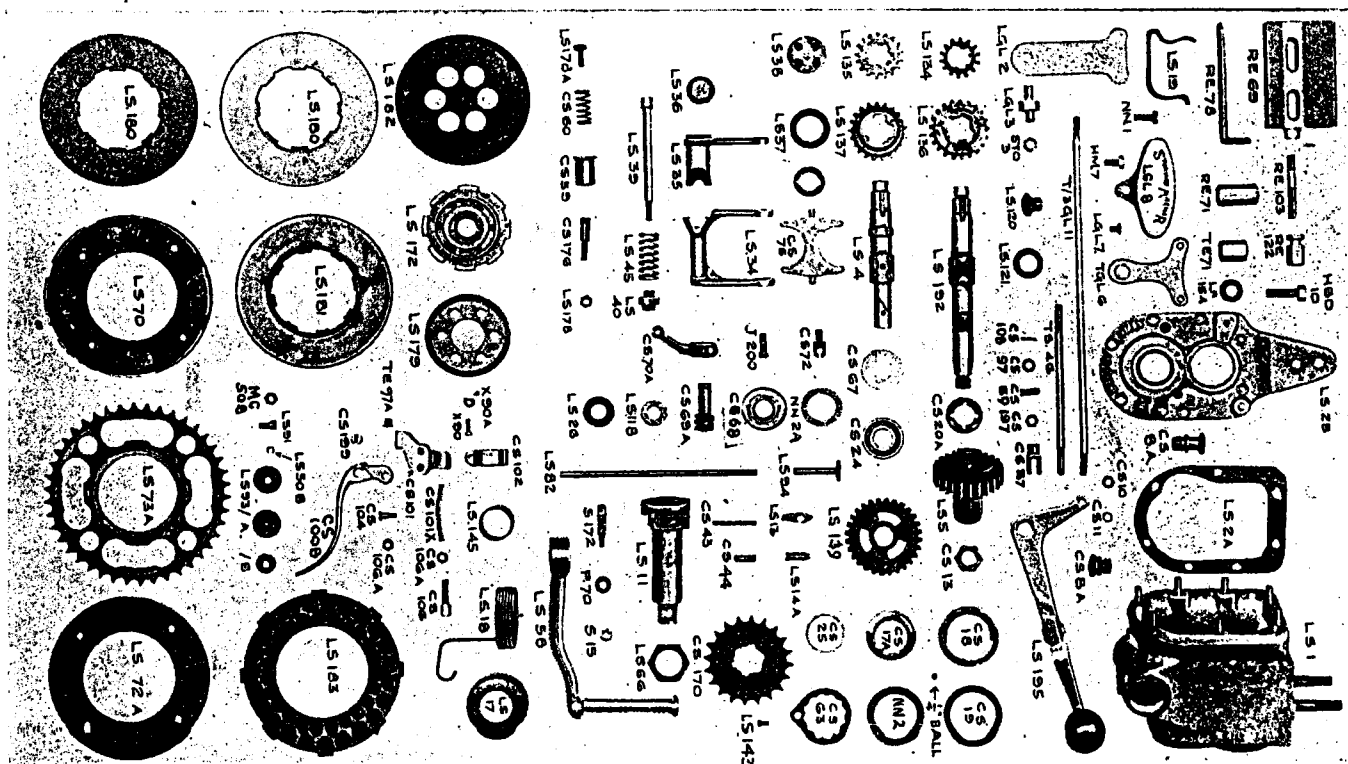
V.

L/3 E. 205 Valve stem only (inlet) 3% Nickel... caps  
 L/3 E. 282 Valve complete (inlet) with spring  
 and cotter ...  
 L/3 E. 206 Valve stem only (exhaust) stainless  
 L/3 E. 285 Valve complete (exhaust) with spring caps and cotter ...  
 L/3 E. 119 Valve spring only (inlet and exhaust)  
 L/3 E. 227 Valve spring cap (bottom) ...  
 L/3 E. 226 Valve spring cap (top) ...  
 L/3 E. 204 Valve cap for cylinder (aluminium)  
 L/3 E. 250 Valve cotter ...  
 L/3 E. 224 Valve guide (inlet or exhaust) ...  
 T.E. 83 Valve tappet guide (inlet or exhaust)  
 R.E. 41 Valve lifter cam spindle (splined end)  
 R.E. 38 Valve lifter lever for above ...  
 I.F. 19 Nut securing above ...  
 S.T.D. 10 Washer for above ...  
 R.E. 42 Valve lifter cable stop (fits on R.E. 38)  
 R.E. 40 Valve lifter cable adjuster (screws in R.E. 42) ...  
 R.B. 32 Lock nut for adjuster ...  
 R.E. 117 Valve lifter cable anchor bracket (fits on R.E. 39) ...  
 S.T.D. 14 Split pin securing above ...  
 S.T.D. 11 Washer ...  
 T.E. 120 Valve lifter cable (assembled) ...  
 T.E. 118 Valve lifter cable inner only ...  
 T.E. 119 Valve lifter cable outer only ...  
 L.E. 184 Valve lifter cable nipples (each) ...  
 R.E. 114 Valve lifter cable spring ...  
 H.E. 36/A Valve lifter outer armouring spring  
 Valve lifter lever (see handlebars) ...

GEAR BOX

L.S. 1 Gear box shell only ...  
 L.S. 2/B Gear box end plate ...  
 L.S. 192 Gear box main driving shaft ...  
 L.S. 4 Layshaft only ...  
 L.S. 5 Mainshaft high speed or sleeve pinion less races ...  
 C.S. 18 Ball Cup for L.S. 5 ...  
 C.S. 17/A Ball races for above (each) L. or R. ...

GEAR BOX PARTS



GEAR BOX.—*cont'd.*

		£	s.	d.
C.S.	25	Packing shims for adjusting above (each)	1	0
L.S.	137	Middle gear sliding pinion for layshaft	10	0
L.S.	136	Middle gear sliding pinion for mainshaft	8	6
L.S.	135	Layshaft pinion	5	0
L.S.	134	Mainshaft pinion	4	0
L.S.	139	Low gear and kickstarter pinion	10	0
L.S.	11	Kickstarter shaft or axle (with bush)	12	6
L.S.	12	Layshaft bush	4	0
L.S.	13	Kickstarter pawl	3	3
L.S.	14/A	Kickstarter pawl pin or axle	1	3
C.S.	43	Kickstarter pawl spring	3	1
C.S.	44	Kickstarter pawl spring sleeve	1	1
L.S.	18	Kickstarter return spring	3	3
L.S.	17	Kickstarter return spring cover	1	6
L.S.	145	Kickstarter axle tubular sleeve	9	9
L.S.	19	Kickstarter crank stop spring	3	3
N.N.	1	Bolt securing above	7	7
C.S.	170	Sprocket for rear chain (fits on L.S. 5)	3	6
L.S.	66	Sprocket fixing nut	9	9
C.S.	63	Locking plate for nut	5	5
L.S.	143	Lock screws for above	8	1
N.N.	2	Felt washer (fits behind sprocket)	1	6
C.S.	19	Dust cover (fits behind felt washer)	3	3
L.S.	34	Gear striker fork	6	6
L.S.	35	Gear striker lever	6	6
C.S.	75	Gear striker plate for sliding pinions	2	6
L.S.	39	Rocking shaft	1	3
L.S.	40	Rocking shaft nut	3	6
L.S.	37	Rocking shaft lever bush (screws in gear-box)	2	0
L.S.	38	Rocking shaft end bush or cap	1	6
L.S.	36	Oil retaining cap for rocking shaft lever	2	2
L.S.	45	Compensating spring for rocking shaft	5	5
S.	172	Kickstarter crank cotter pin (only) 2d.	12	6
S.	15	Nut for above	4	2
P.	70	Washer only	1	1
C.S.	24	Ball bearing for mainshaft or layshaft	8	9
C.S.	67	Adjusting shims or washers (each)	1	1
T.G.L.	6	Gear rod crank (attached to gear box)	1	0
H.B.D.	10	Gear rod crank fixing bolt	9	9
I.F.	154	Washer for above (each)	4	4
L.S.	120	Special spigot nut for bolt	5	5
L.S.	121	Spring washer for above	4	4
L.S.	195	Gear lever with knob	5	0
I.G.L.	8	Gear lever gate with back plate	6	6
H.M.	7	Bolts securing above (each)	3	3
T.G.L.	11	Long gear rod only	1	0

Gear Box.—*cont'd.*

		£	s.	d.
T.S.	46	Short gear rod only	1	0
C.S.	87	Gear rod yoke ends for above (each)	10	10
C.S.	137	Gear rod yoke end lock nuts (each)	1	1
C.S.	89	Gear rod yoke end pins (each)	2	2
C.S.	108	Split pin for above, per dozen	6	6
C.S.	97	Washer for yoke end pin (each)	1	1
L.S.	2/A	Gear box end plate paper washer	1	1
C.S.	9	Gear box end plate stud (each)	3	3
C.S.	10	Gear box end plate stud nut (each)	2	2
T.S.	4	Gear box fixing stud (each)	5	5
T.S.	5	Gear box fixing stud spring washer	2	2
R.E.	71	Gear box fixing stud long nut	5	5
T.E.	71	Gear box fixing stud short nut	5	5
R.E.	78	Gear box adjuster plate	2	2
R.F.	103	Gear box adjuster stud (screws into R.E. 69)	3	3
R.E.	122	Gear box adjuster nut (special)	7	7
C.S.	8/A	Gear box filling plug	9	9
C.S.	8/A	Gear box drain plug	9	9
C.S.	20/A	Main axle bronze thrust washer	1	6
R.E.	69	Gear box guide block (aluminium) fits between rear engine cradle plates	5	0
I.F.	61	Bolts fixing above (each)	4	4
S.T.D.	4	Nuts for above (each)	2	2
S.T.D.	11	Washer only	1	1
<b>CLUTCH PARTS</b>				
L.S.	172	Clutch hub	17	6
C.S.	13	Clutch hub fixing nut	5	5
C.S.	14/A	Washer for above	1	1
C.S.	15/A	Clutch hub key for mainshaft	3	3
L.S.	179	Clutch hub back plate	2	0
L.S.		Clutch driver	8	0
L.S.	72	Clutch sprocket back plate	2	6
L.S.	73/A	Clutch sprocket	0	0
L.S.	50/B	Clutch sprocket rollers (each)	1	0
L.S.	69/A	Rubber shock absorbers (each)	2	2
L.S.		Rubber friction damper washers (fit in L.S. 73/A), small rd. (each), large 2d. (each)	2	2
L.S.	176	Clutch spring stud (each)	6	6
L.S.	178	Clutch spring stud nuts (each)	2	2
C.S.	60	Clutch spring (each)	2	2
C.S.	59	Clutch spring thimble	4	4
L.S.	178/A	Clutch spring stud screw (each)	1	1
C.S.	61/C	Washer for above (each)	2	2
L.S.	183	Clutch friction ring with inserts (each)	5	0
L.S.	180	Clutch centre plate (flat) each	2	6
L.S.	181	Clutch outer plate	2	6
L.S.	182	Clutch thrust plate	2	6

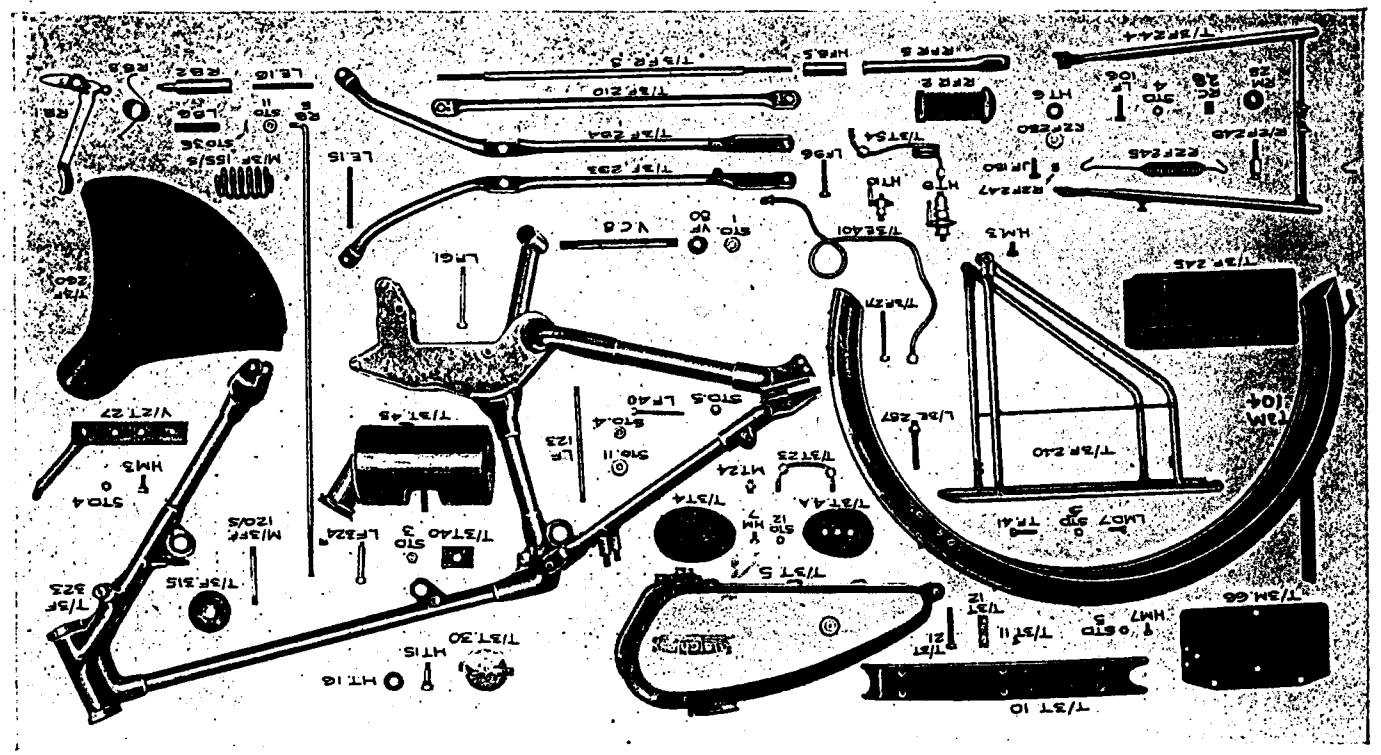
**Clutch Parts—contd.**

			£	s.	d.
L.S.	r16 & r16/A	{ Clutch inserts (per doz.) large or small ... }	1	0	0
L.S.	82	Clutch thrust rod (long)	10	10	0
L.S.	94	Clutch thrust pin	10	10	0
C.S.	69/A	Clutch thrust worm	1	9	0
C.S.	70/A	Clutch thrust worm lever	2	6	0
J	200	Clutch thrust worm lever pinch bolt	1	1	0
C.S.	68	Clutch worm nut (screws into end plate)	1	9	0
L.S.	26	Clutch worm nut oil retaining cap	9	9	0
L.S.	118	Clutch worn felt washer	2	2	0
C.S.	100	Clutch handlebar lever complete (less cables)	8	0	0
C.S.	100/B	Lever portion only	4	1	0
C.S.	104	Clutch lever fulcrum screw	1	1	0
C.S.	106/A	Nuts for above (each)	1	1	0
C.S.	101	Lower half of handlebar clip	2	6	0
C.S.	102	Upper half of handlebar clip	1	0	0
T.E.	124	Screw and nut for handlebar clip	2	2	0
T.E.	124/A	Clutch cable complete inner and outer	5	6	0
T.E.	124/B	Clutch cable inner only	1	6	0
T.E.	124/B	Clutch cable outer only	1	6	0
T.E.	97/A	Clutch cable thimble for lever	3	6	0
C.S.	106	Clutch cable stop only	4	9	0
C.S.	106/A	Lock nut for above	9	1	0
C.S.	72	Clutch cable stop T piece	1	0	0
L.S.	91	Screws securing clutch back plate (each)	1	1	0
M.C.	508	Nuts for above (each)	1	1	0
C.S.	199	Roller type adaptor for clutch cable nipple	1	1	0
C.S.	101/X	Spring for clutch inner cable fits in handlebar lever	4	2	0
<b>FRAME AND FORK PARTS.</b>					
T/3 F.	323	Complete frame less tank rails and torque tubes	4	15	0
T/3 F.	210	Tank rail only left or right	2	0	0
H.N.I.	3	Front fixing bolts (each)	4	4	0
L.F.	96	Rear fixing bolt	4	4	0
S.T.D.	4	Nuts for above (each)	2	2	0
S.T.D.	11	Washer (each)	1	1	0
V/2 T.	27	Front tank support plate (supports tank and gear quadrant)	3	0	0
L.F.	40	Rear chain adjuster bolts (each)	9	9	0
S.T.D.	5	Nut for above (each)	2	2	0
T/3 F.F.	149	Front forks complete with stand and mud-guard	5	5	0
T/3 F.F.	150	Front forks complete less stand and mud-guard	3	15	0
T/3 F.F.	1	Front fork girder only right side	15	6	0
T/3 F.F.	2	Front fork girder only left side	15	0	0
T.F.F.	27	Front fork spindle (long)	1	5	0
R.F.F.	28	Front fork spindle (short)	1	1	0
M.B.	68	Fork spindle grease nipple	2	2	0

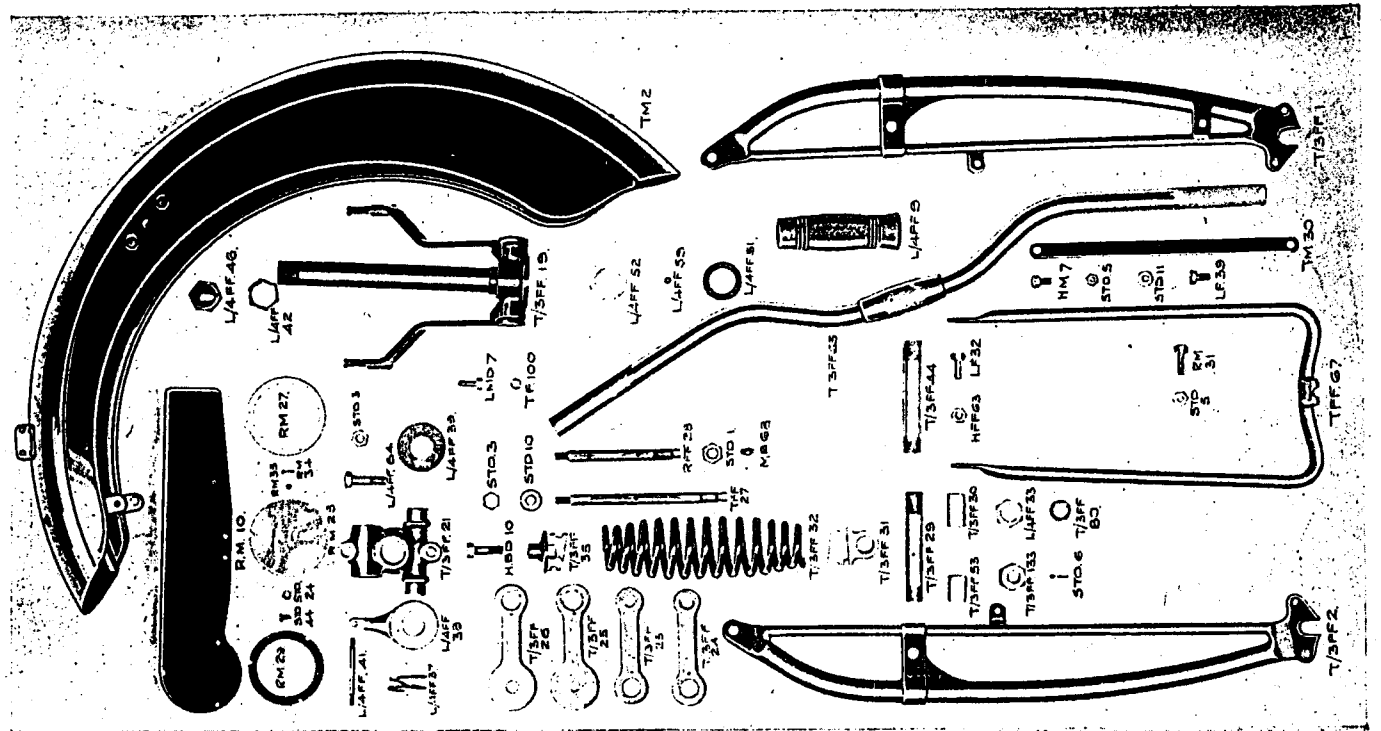
**Frame and Fork Parts—contd.**

			£	s.	d.
S.T.D.	1	Left side spindle lock nut	5	5	0
S.T.D.	3	Right side spindle nut	3	3	0
T/3 F.F.	80	Fibre washers for fork spindles (each)	2	2	0
T/3 F.F.	23	Front fork link or shackle bottom (right)	1	3	0
T/3 F.F.	24	Front fork link or shackle bottom (left)	1	1	0
T/3 F.F.	25	Front fork link or shackle top (right)	1	1	0
T/3 F.F.	26	Front fork link or shackle top (left)	1	1	0
T/3 F.F.	44	Fork spindle sleeve (top)	1	1	0
T/3 F.F.	29	Fork spindle sleeve (bottom)	2	2	0
T/3 F.F.	30	Long distance collar for bottom sleeve	5	5	0
T/3 F.F.	53	Short distance collar for bottom sleeve	4	4	0
T/3 F.F.	133	Special extended lock nut for links (fits on above) left side	8	8	0
I/4 F.F.	33	Standard type lock nuts for links (fits on above) right side	4	4	0
S.T.D.	6	Split pin securing above lock nuts (per doz.)	3	0	0
T/3 F.F.	32	Front fork spring	3	0	0
T/3 F.F.	31	Bottom fork spring anchor lug (fits over spindle sleeve)	1	6	0
T/3 F.F.	35	Top fork spring anchor lug	1	3	0
H.B.D.	10	Bolt securing to handlebar clip lug	6	6	0
T/3 F.F.	19	Front fork crown and stem	15	0	0
T/3 F.F.	21	Fork head and handlebar clip	8	0	0
L/4 F.F.	64	Pinch bolt for handlebar	6	6	0
S.T.D.	3	Nut for above	3	3	0
L/4 F.F.	42	Head adjusting nut	8	8	0
L/4 F.F.	46	Cap lock nut for above	1	6	0
L/4 F.F.	39	Damper leather friction washers (each)	2	2	0
L/4 F.F.	37	Damper spring washers (each)	3	3	0
L/4 F.F.	38	Damper side plates (each)	6	6	0
L/4 F.F.	41	Bolt (long) securing above	3	3	0
S.T.D.	25	Nuts for bolt (each)	2	2	0
L/4 F.F.	52	Fork crown ball race	1	9	0
L/4 F.F.	51	Fork frame and head clip ball race	1	4	0
L/4 F.F.	59	Set of steering head balls (42 in No.)	7	7	0
T/3 F.	315	Large discs or washers for steering lock (each)	9	9	0
M/3 F.F.	120/S	Bolt securing above to frame lug	3	3	0
S.T.D.	2	Nuts for above (each)	4	4	0
T.F.	28	Sheet metal guard or cover for rear engine cradle plates (covering gear box top)	1	6	0
T/3 F.	294	Left side torque tube	3	3	0
T/3 F.	293	Right side torque tube	3	3	0
V.C.	8	Long bolt for centre fixing of torque tubes	9	9	0
V/2 F.	80	Caps for bridge tube (each)	3	3	0
S.T.D.	1	Bolt end nuts (each)	5	5	0
<b>LUGGAGE CARRIER, TOOLBOX, ETC.</b>					
T/3 F.	240	Luggage Carrier only	15	0	0
L.M.D.	7	Bolt securing to rear mudguard	4	4	0

FRAME PARTS



FORK PARTS





			£	s.	d.
<b>Luggage Carrier, Toolbox, etc.—cont'd.</b>					
Nut for above	S.T.D.	5			2
Bottom fixing bolts (each) ...	H.N.M.	3			4
Nut for above	S.T.D.	4			2
Toolbox: left or right	T/3 F.	245			9
Toolbox fixing bolt (each) ...	H.M.	7			3
Nut for above	S.T.D.	5			2
Rear number plate (acetylene) unlettered	T/3 M.	66			1
Rear number plate (electric) unlettered	T/3 M.	70			1
Bolts securing above (each) ...	H.M.	7			3
Nut for above	S.T.D.	5			2
<b>MUDGUARDS AND MUDSHIELDS</b>					
Front mudguard only	T.N.M.	2			6
Front mudguard stay (left or right)	T.M.	30			8
Fixing bolt for side of mudguard	L.M.D.	7			4
Fixing bolt for top end of stays	H.M.	7			3
Nuts for above	S.T.D.	5			2
Bottom fixing bolt for stays (each)	L.F.	39			2
Front stand clip bolt or stud	R.M.	31			3
Nuts for same (each)	S.T.D.	5			2
Washer only	T/3 M.	12			1
Rear mudguard	T/3 F.	104			6
Fixing bolt for chain stay bridge	T.F.	271			0
Fixing bolt for top stay bridge	L.M.D.	41			2
Bolt fixing to luggage carrier	S.T.D.	7			4
Nuts for above bolts (each)	R/2 M.	25			2
Rear stand clip rubber buffer	R.C.	28			6
Tubular sleeve for above	L.F.	106			3
Fixing bolt for rubber buffer	S.T.D.	4			2
Nut for above	T/3 M.	112			0
Mudshields with all fittings (per set)	T/3 M.	116			15
Left side shield only	T/3 M.	117			6
Right side shield only	L/4 M.	123			0
Mudshield top rod (long)	L/4 M.	126			10
Distance tubes for above (left or right)	S.T.D.	4			5
Mudshield rod end nuts (each)	S.T.D.	11			2
Washer for above (each)	R.E.	73			1
Mudshield special bottom fixing bolt	R.E.	91			4
Distance tube for same, right side only	S.T.D.	4			3
Nut for bottom mudshield bolt (r only)	S.T.D.	11			2
Washer for above	H.M.	6			1
Front number plate only (sidacar model)	R.M.	9			2
Front number plate and license holder complete (Solo type)	R.M.	10			0
Front number plate only (Solo model)	S.T.D.	44			1
Fixing screws (each) ...	S.T.D.	24			1
Nut for above	R.M.	27			1
License holder rim (Solo type)	R.M.	34 & 35			4
Screws and nuts fixing above (each pair) ...	R.M.				2

			£	s.	d.
<b>Mudguards and Mudshields.—cont'd.</b>					
License holder transparent panel ...	R.M.	28			3
Rubber ring for above	R.M.	29			3
License holder complete (for sidacar)	M.E.Q.	60			9
Rear number plate (See Carrier and Tool-box)	T.E.	180			6
Magneto mudshield ...					3
<b>TANKS AND FITTINGS.</b>					
Petrol tank with filler caps ...	T/3 T.	5/A			0
Petrol tank less all fittings	T/3 T.	5			15
Petrol tap and filter ...	H.T.	9			2
Filter only	H.T.	9/A			4
Petrol drain tap	H.T.	10			6
Union for U pipe (screws into tank)	M.T.	24			1
U pipe complete	T/3 T.	23			9
Petrol pipe	R.T.	54			3
Nipples for U pipe & petrol pipe tank end	R.T.	28			6
Nipple for petrol pipe carburettor end	R.T.	28/A			3
Union nut for U pipe and petrol pipe tank end	R.T.	27			3
Union nut for petrol pipe carburettor end	R.T.	29			4
Petrol tank filler cap top only	T/3 T.	30			4
Split hinge pin for above	T/3 T.	30/C			6
Tank fixing bolt front end (each)	H.T.	15			3
Rubber buffer for front end (each)	H.T.	16			2
Tank fixing bolt (rear end)	T/3 T.	21			5
Tubular distance piece for above	V/2 T.	22			5
Rubber washers for rear end (each)	R/2 M.	25			3
Nut for rear tank fixing bolt	S.T.D.	4			5
Oil tank complete with fittings	T/3 T.	45/A			2
Oil tank less all fittings	T/3 T.	45			0
Nut for fixing oil tank	S.T.D.	4			15
Bridge plate for fixing oil tank	T/3 T.	40			6
Oil tank filler cap	T/3 T.	30/A			3
Split hinge pin for above	T/3 T.	30/C			6
Screwed union and filter for oil pipe	L/3 E.	287			3
Oil pipe (tank to pump)	T/3 E.	40r			2
Oil pipe union nut tank end	L/3 E.	284			3
Oil pipe union nut pump end	P.O.P.	14			4
Oil pipe nipple pump end	P.O.P.	13			4
Oil pipe nipple tank end	L/3 E.	290			3
Nickelled tank strip	T/3 T.	10			3
Fixing plates (each) ...	T/3 T.	12			6
Fixing plate screws (each)	T/3 T.	11			2
Knee Grip (left side) ...	4/L	4/R			4
Knee Grip (right side)	4/R	4/A			2
Knee Grip fixing plate	T/3 T.				6
Knee Grip fixing bolt	H.M.	7			6

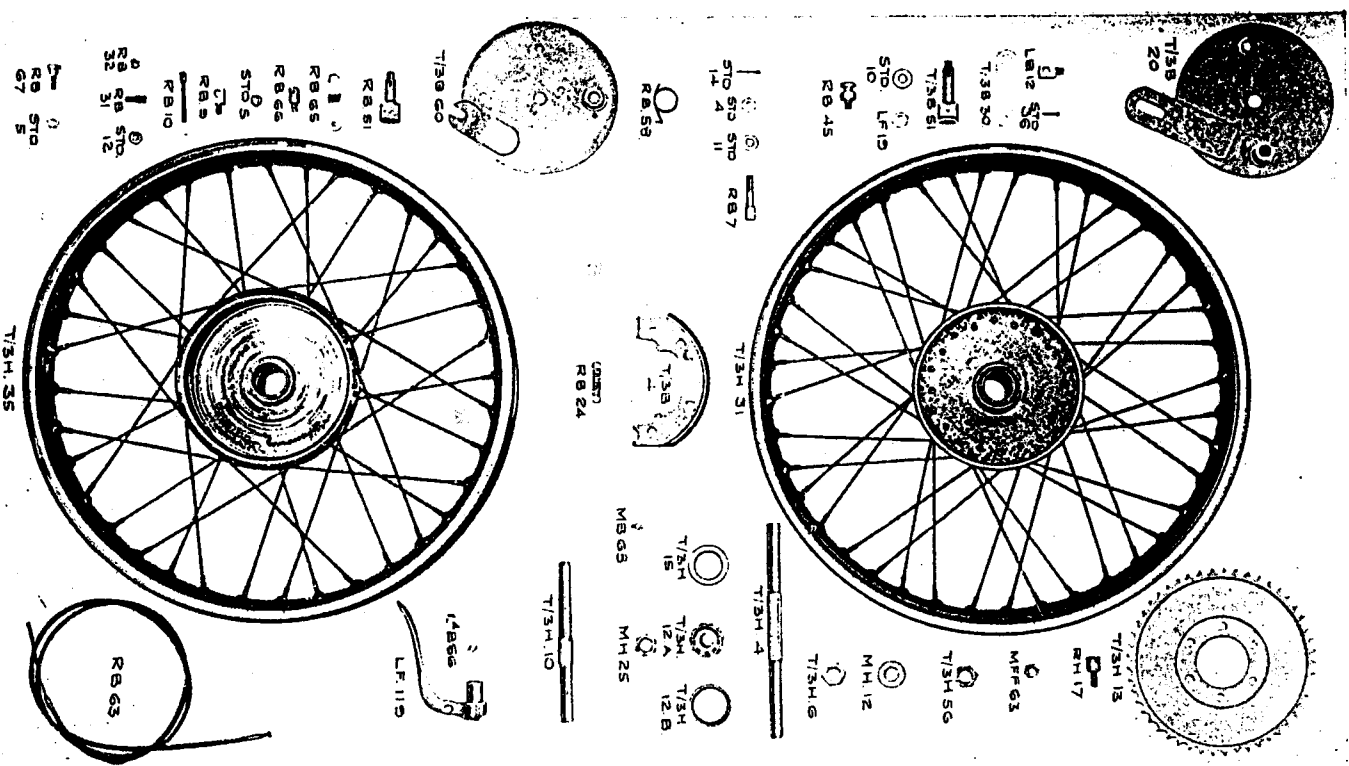
STANDS.

T/3 F.	244	Rear stand only	...	...	...	7 s. d.
L.F.	150	Rear stand fixing bolts (each)	...	...	...	II 9
H.T.	6	Rear stand bolt spring washer	...	...	...	3 3
R/2 F.	230	Rear stand bolt plain washer	...	...	...	2 1
H.F.F.	63	Rear stand bolt nut	...	...	...	1 2
R/2 F.	245	Rear stand pull up spring	...	...	...	6 6
R/2 F.	249	Special anchor bolt for spring	...	...	...	3 3
S.T.D.	4	Nut for above	...	...	...	2 2
R.M.	28	Rubber buffer for rear stand (see Mudguards)	...	...	...	6 6
T/3 F.F.	67	Front stand only	...	...	...	4 6
L.F.	32	Front stand fixing bolts (each)	...	...	...	3 3
H.F.F.	63	Front stand fixing bolt lock nut	...	...	...	2 2
S.T.D.	5	Front stand clip nut (see also Mudguards)	...	...	...	2 2

REAR WHEEL AND BRAKE PARTS.

T/3 H.	26	Rear wheel complete less tyre	...	...	...	4 7 9
T/3 H.	28	Rear wheel complete with tyre (26 X 3.25 Palmer Flexicord)	...	...	...	7 2 9
T/3 H.	31	Rear wheel less all hub and brake fittings	...	...	...	I 13 8
T/3 H.	13	Rear wheel chain sprocket (49 teeth.)	...	...	...	3 3
R.H.	17	Fixing bolts for sprocket (each)	...	...	...	2 2
H.F.F.	63	Lock nuts for above (each)	...	...	...	12 6
T/3 B.	20/A	Rear brake cover plate with shoes and expander, etc.	...	...	...	3 0
T/3 B.	20	Cover plate only	...	...	...	5 0
T/3 B.	4 & 5	Rear brake shoes per pair	...	...	...	10 10
T/3 B.	50	Rear brake shoe linings only with rivets (each)	...	...	...	3 3
R.B.	24	Internal brake shoe springs (each)	...	...	...	2 6
T/3 B.	51	Rear brake shoe expander	...	...	...	10 10
T/3 B.	30	Rear brake shoe expander lever	...	...	...	1 9
L.F.	19	Nut securing above to expander	...	...	...	8 8
S.T.D.	10	Washer for nut	...	...	...	1 1
R.B.	5	Rear brake rod	...	...	...	6 6
L.B.	12	Rear brake rod cross head (fits in lever)	...	...	...	2 2
S.T.D.	36	Split pin securing cross head, per dozen	...	...	...	1 1
S.T.D.	11	Washer for above	...	...	...	6 6
S.T.D.	4	Brake rod end nuts (each) rear end	...	...	...	3 3
S.T.D.	36	Split pin for front end, per dozen	...	...	...	6 6
S.T.D.	1	Rear brake foot pedal	...	...	...	10 10
R.B.	2	Rear brake foot pedal fulcrum stud	...	...	...	7 7
L.E.	16	Long bolt securing above to engine	...	...	...	3 3
S.T.D.	3	End nuts for above and fulcrum stud end	...	...	...	4 4
L.B.	5	Washer for fulcrum stud	...	...	...	3 3
R.B.	7	Anchoring bolt for cover plate	...	...	...	2 2
S.T.D.	4	Nut securing above to fork end	...	...	...	9 9
S.T.D.	14	Split pin for nut, per dozen	...	...	...	5 0
T/3 H.	4	Rear wheel axle	...	...	...	3 9
T/3 H.	12	Rear wheel taper bearing complete	...	...	...	5 0
T/3 H.	12/A	Taper cone with rollers and cage only	...	...	...	3 9

WHEELS AND PARTS



Rear Wheel and Brake Parts—contd.

	QTY	U.S. D.
T/3 H. 12/B Outer hardened race only ...	1	3
T/3 H. 6 Inside lock nut for brake side cone (thin) ...	2	2
T/3 H. 56 } (Outside lock nut for chain side cone) ...		
... } (Lock nut for brake cover plate) ...	2	2
M.H. 25 Axle end nuts ...	4	4
M.H. 12 Axle end nut washer ...	1	1
T/3 H. 15 Metal dust cap for hub end ...	3	3
M.B. 68 Hub grease nipple ...	2	2
T/3 H. 44 Rear wheel spoke (left side) each ...	1	1
T/3 H. 43 Rear wheel spoke (right side) each ...	1	1
R.H. 34 Spoke nipples (each) ...	2	2
T/3 H. 21 Rear wheel rim drilled and enamelled ...	10	0
T/3 H. 18/A Rear hub complete with brake ...	1	17
T/3 H. 18 Rear hub shell only ...	10	0
T/3 H. 28 & 30 Rear wheel tyre and tube (26 X 3.25 Palmer Flexicord) ...	2	15
T/3 H. 30 Inner tube only ...	8	6
T/3 H. 29 Cover only ...	2	6
R.B. 8 Rear brake pedal pull off spring ...	6	6
R.B. 45 Rear brake shoe fulcrum stud ...	4	4
L.F. 19 Nut securing above to cover plate ...	1	10
S.T.D. 10 Washer for nut ...	2	1

FRONT WHEEL AND BRAKE PARTS.

	QTY	U.S. D.
T/3 H. 27 Front wheel complete with tyre ...	5	5
T/3 H. 25 Front wheel complete less tyre ...	2	12
T/3 H. 35 Front wheel less all hub and brake fittings ...	1	6
T/3 B. 60/A Front brake cover plate assembled with shoes, expander, etc. ...	12	0
T/3 B. 60 Front brake cover plate only ...	2	10
T/3 B. 4 & 5 Front brake shoes only (per pair) ...	5	0
T/3 B. 50 Internal springs for brake shoes (each) ...	10	3
R.B. 24 Front brake shoe expander ...	2	6
R.B. 51 Front brake shoe expander ...	10	10
R.B. 65 Front brake shoe expander lever ...	2	2
L.F. 19 Nut fixing above ...	1	1
S.T.D. 10 Washer for nut ...	4	4
R.B. 58 Front brake pull off spring ...	4	4
R.B. 63 Front brake cable (inner and outer) assembled ...	4	6
R.B. 63/A Front brake cable inner only ...	1	3
R.B. 63/B Front brake cable outer only ...	2	9
R.B. 66 Front brake cable slotted stop ...	7	7
S.T.D. 5 Nut fixing above ...	2	2
R.B. 10 Rod extension for inner cable ...	6	6
L/4 B. 66 Nipple for handlebar end of inner cable ...	3	3
R.B. 31/A Pinch bolt or eye bolt for rod extension with nut and washer ...	9	9
R.B. 9 Cross head for expander lever ...	6	6
S.T.D. 14 Split pin securing cross head, per dozen ...	6	6

Front Wheel and Brake Parts—contd.

	QTY	U.S. D.
S.T.D. 12 Washer (fits behind split pin) ...	1	1
M.B. 68 Front hub grease nipple ...	2	2
T/3 H. 10 Front wheel axle ...	6	6
T/3 H. 12 Front wheel taper bearing complete ...	5	0
T/3 H. 12/B Hardened outer race only ...	1	3
T/3 H. 12/A Taper cone with rollers and cage only ...	3	9
T/3 H. 56 Thin lock nut for left side cone ...	2	2
T/3 H. 56 Lock nut for right side cone (inside hub) ...	2	2
T/3 H. 6 Lock nut for brake cover plate ...	2	2
M.H. 25 Axle end nuts (each) ...	4	4
M.H. 12 Axle end washer (each) ...	1	1
T/3 H. 15 Metal dust cap for hub end ...	3	3
T/3 H. 10/A Front hub complete with brake, etc. ...	1	15
T/3 H. 19 Front hub shell only ...	9	6
T/3 H. 20 Front wheel rim drilled and enamelled ...	10	0
T/3 H. 54 Front wheel spoke left side ...	1	1
T/3 H. 52 Front wheel spoke right side ...	1	1
R.H. 34 Spoke nipples (each) ...	2	2
T/3 H. 27 Front wheel tyre & tube (26 X 3.25 Palmer Flexicord) ...	2	15
T/3 H. 30 Inner tube only ...	8	6
T/3 H. 29 Cover only ...	2	6
R.B. 43 Front brake shoe fulcrum stud ...	1	10
L.F. 19 Nut securing above to cover plate ...	2	2
S.T.D. 10 Washer for nut ...	1	1
R.B. 67 Anchoring stud for cover plate ...	5	5
S.T.D. 5 Nut securing above to fork girder ...	2	2
S.T.D. 12 Washer for nut ...	1	1

CHAIN GUARDS AND CHAINS

	QTY	U.S. D.
T.C. 10 Rear chain guard ...	6	6
L.F. 106 Rear chain guard fixing bolt (rear end) ...	3	3
S.T.D. 4 Nut for above ...	2	2
S.T.D. 11 Washer only ...	1	1
L.F. 61 Rear chain guard fixing bolt front end ...	5	5
(see also engine bolts) ...		
T.C. 6 Front chain guard back portion (Non-Electric Model) ...	7	6
T.C. 36 Front chain, guard back portion (Electric Model) ...	7	6
T.C. 9 Special bolt fixing front end (screws in crankcase) ...	8	8
L/4 M. 125 Distance tube (fits on above) ...	5	5
S.T.D. 4 Nut for distance tube ...	2	2
L.E. 14 Long bolt fixing rear end (passes through crankcase) ...	9	9
T.C. 20 Distance tube fits over above (long) ...	5	5
T.C. 19 Distance tube (short) ...	4	4
S.T.D. 3 Nuts for long fixing bolt (each) ...	3	3

Chain Guards and Chains.—*cont'd.*

				£	s.	d.
T.C.	1	Outer portion of front chain guard (Non-Electric Model) ...	...	15	0	0
T.C.	31	Outer portion of front chain guard (Electric Model) ...	...	15	0	0
S.T.D.	3	Fixing nut (each) ...	...	3	1	1
S.T.D.	10	Washer (each) ...	...	1	6	6
T.F.	28	Guard or cover for rear engine cradle plates ...	...	1	6	6
L.C.	14	Front driving chain T/4 Solo, $\frac{1}{2}$ in. by .305 by 64 pitches ...	...	8	6	6
L.C.	14	Front driving chain T/3 Solo, $\frac{1}{2}$ in. by .305 by 65 pitches ...	...	8	8	8
T.C.	14	Front driving chain T/3 Sidacar, $\frac{1}{2}$ in. by .305 by 63 pitches ...	...	8	4	4
T.C.	24	Rear driving chain $\frac{1}{2}$ in. by .305 by 14 pitches ...	...	15	6	6
T.C.	13	Connecting link complete ...	...	5	5	5
L.C.	19	Spring clip only for connecting link	...	1	1	1
L.3.	20	Cranked link ...	...	5	6	6
L.C.	21	Magneto driving chain ...	...	2	6	6
T.E.	81	Connecting link complete ...	...	4	4	4
T.E.	81/A	Spring clip only for above ...	...	1	1	1
T.E.	81/B	Chain rivet extractor ...	...	5	0	0
L.C.	25					
<b>FOOTRESTS</b>						
T/3 F.R.	8	Footrest rod ...	...	1	4	4
S.T.D.	4	Footrest rod end nuts ...	...	2	2	2
S.T.D.	11	Washer for above ...	...	1	1	1
R.F.R.	5	Footrest tube left or right ...	...	1	2	2
R.F.R.	2	Footrest rubber pads (push on) ...	...	1	6	6
H.F.B.	5	Distance tube for footrest (centre) ...	...	5	5	5
R.F.R.	16	Pillion footrests (per pair), complete	...	12	6	6
R.F.R.	12	Half clip for chain stay (each) ...	...	5	6	6
R.F.R.	14	Clip for rear stay ...	...	3	3	3
I.F.	32	Bolt for rear stay clip ...	...	2	2	2
S.T.D.	4	Nut for above ...	...	4	4	4
R.F.R.	17	Bolt for divided clip ( $\frac{1}{4}$ in. diam.) ...	...	5	5	5
S.T.D.	1	Nut for above ...	...	1	0	0
R.F.R.	13	Pillion footrest side plate ...	...	1	0	0
V/2 F.R.	10	Pillion footrest pad spindle ...	...	1	5	5
S.T.D.	1	End nut small for spindle ...	...	1	2	2
R.F.R.	2	Pillion footrest rubber pad ...	...			
<b>FOOTBOARDS—(Export Model)</b>						
T/3 F.R.	64	Footboard only with mat fitted L. or R. ...	...	6	0	0
T/3 F.R.	62	Footboard mat only ...	...	1	3	3
L/4 F.R.	64	Footboard distance tube rear L. or R. ...	...	7	7	7

Footboards (Export Model).—*cont'd.*

				£	s.	d.
H.F.B.	7	Footboard distance tube front L. or R. ...	...	7	5	5
H.F.B.	4	Centre distance tube front ...	...	5	5	5
H.F.B.	5	Centre distance tube rear ...	...	1	3	3
T/3 F.R.	60	Footboard rod front or rear, plain ...	...	5	5	5
S.T.D.	1	Footboard rod end nuts (each) ...	...	7	6	6
T/3 F.R.	58	Footboard rod end nut with extension for brake pedal stop ...	...	3	10	10
T/3 B.	101	Footboard brake pedal fulcrum stud	...	3	6	6
T/3 B.	102	Footboard brake pedal fulcrum stud fixing	...	10	10	10
S.T.D.	3	Footboard brake pedal nut	...	3	3	3
S.T.D.	10	Washer for above ...	...	1	1	1
T/3 B.	108	Pull off spring for brake pedal	...	3	3	3
T/3 B.	105	Rear brake rod (special for footboards) ...	...	2	0	0
T/3 F.R.	51	Footboard side rail L. or R. ...	...	1	0	0
T/3 F.R.	53	Footboard side rail front link piece L. or R. ...	...	7	7	7
T/3 F.R.	52	Footboard vertical support strap ...	...	4	4	4
L.F.	32	Footboard vertical support strap fixing bolt (long) ...	...	3	3	3
L.F.	39	Footboard vertical support strap fixing bolt (short) ...	...	2	2	2
S.T.D.	4	Nut for above (each) ...	...	3	3	3
R.F.R.	9	Link piece for front footboard rod L. or R. Bolt securing above to engine crankcase	...	8	8	8
M.E.	54	Footboard hinge stud (each) ...	...	6	6	6
T/3 F.R.	54	Footboard hinge stud fixing nut ...	...	3	3	3
S.T.D.	3	Footboard hinge pin	...	4	4	4
T/3 F.R.	55	Footboard hinge pin split pin, per dozen ...	...	6	6	6
S.T.D.	14					
<b>HANDLEBAR</b>						
T.F.F.	165/S	Handlebar bare (Sports type) ...	...	13	6	6
T/3 F.F.	65	Handlebar bare (Touring type) ...	...	13	6	6
T/3 F.F.	265	Handlebar bare (Export type) for footboards ...	...	15	0	0
L/4 F.F.	9	Handlebar grips (per pair) ...	...	2	0	0
L/4 F.F.	64	Handlebar clip pinch bolt ...	...	6	6	6
S.T.D.	3	Nut for above ...	...	3	3	3
L.F.	119	Inverted handlebar lever complete	...	7	6	6
L.F.	120	Lever portion only ...	...	3	9	9
L.F.	121	Fulcrum screw for lever ...	...	4	4	4
L.F.	122	Nut for fulcrum screw ...	...	2	2	2
S.T.D.	20	Screw securing lever body to handlebar	...			
<b>SADDLE AND PARTS</b>						
T/3 F.	260	Saddle top only (special Lycett Aero) ...	...	1	0	10
M/3 F.	155/S	Saddle springs (each) ...	...	6	6	6
S.T.D.	3	Nut securing spring to saddle and frame ...	...	3	3	3
S.T.D.	10	Washer for nut ...	...	2	2	2
L.F.	324/R	Shouldered bolt for saddle nose ...	...	8	8	8
S.T.D.	4	Nut for above ...	...	2	2	2

**MAGNETO AND PARTS**

			£	s.	d.
L.M.D.	12	Complete magneto only	3	15	0
L.M.D.	41/B	Contact breaker only complete	1	2	6
L.M.D.	4152/4122	Contact screws per pair with rocker arms	14	0	0
L.M.D.	7/P	High tension pickup complete	3	6	6
L.M.D.	1052	Carbon brush only for pickup with spring	1	0	0
T.E.	77	Chain sprocket for magneto	2	6	6
L.M.D.	175	Chain sprocket fixing bolt	2	2	2
L.M.D.	175/A	Washer for above	2	1	1
T.E.	56	Chain sprocket for engine shaft (see also engine)	1	6	6
R.E.	171	Magneto fixing bolts (special)	9	9	9
R.E.	172	Cupped washer for magneto fixing bolt	4	1	1
S.T.D.	12	Standard washer for above	1	2	2
S.T.D.	5	Nuts for above (each)	2	4	4
R.E.	163	Magneto base locking plate	4	0	0
T.E.	76	Magneto platform	2	8	8
L.F.	123	Long bolt securing above	6	6	6
R.E.	52	Short bolt securing above	3	3	3
R.E.	91	Distance tube for platform fixing bolt	2	2	2
S.T.D.	4	End nuts for platform fixing bolt (each)	9	9	9
L.M.D.	27	Magneto advance and retard lever for handlebar	3	0	0
L.M.D.	27/A	Lever portion only of above	9	9	9
T.E.	93	Magneto advance and retard cable (outer)	2	0	0
T.E.	92	Magneto advance and retard cable (inner)	3	6	6
T.E.	180	Magneto shield	2	6	6
M.M.D.	1	Base bolts for fixing magdyno	4	4	4
T.E.	177	Chain sprocket for magdyno	2	2	2
L.M.D.	175	Nut securing chain sprocket	2	1	1
L.M.D.	175/A	Washer for nut	2	0	0
R.E.	76	Magdyno Platform	6	6	6

**MECHANICAL OIL PUMP**

P/O.P.	30	Oil pump complete	17	6	6
R.E.	131	Oil pump paper joint washer for timing cover	1	0	0
P/O.P.	1	Oil pump body only	6	0	0
P/O.P.	2	Oil pump cap (with cam projection)	1	0	0
P/O.P.	3	Oil pump plunger	3	0	0
P/O.P.	4	Oil pump regulator spindle	1	6	6
P/O.P.	5	Oil pump driving worm	1	6	6
P/O.P.	6	Oil pump screwed bush	9	1	1
P/O.P.	7	Oil pump fibre washer for regulator	1	1	1
P/O.P.	8	Oil pump steel washer for regulator	1	1	1
P/O.P.	9	Oil pump spring washer for regulator	1	0	0
P/O.P.	10	Oil pump glass cover or cap	2	2	2
P/O.P.	11	Oil pump glass window	6	6	6
P/O.P.	17	Oil pump screwed cap	6	6	6

**Mechanical Oil Pump—cont'd.**

			£	s.	d.
P/O.P.	29	Locking screw for cap and bush	1	1	1
P/O.P.	23	Fibre washer for screwed cap	1	1	1
P/O.P.	19	Screw securing cam cap	1	1	1
P/O.P.	20	Washer for cam cap	1	1	1
P/O.P.	22	Oil pump spring	3	3	3
P/O.P.	24	Ratchet pin for regulator	1	1	1
P/O.P.	25	Ratchet spring for regulator	1	1	1
P/O.P.	26	Screw for window cap (each)	1	1	1
P/O.P.	27	Oil pump fixing screw	1	1	1
P/O.P.	28	Locking washer for screw	1	1	1

**CARBURETTER B. & B.**

T.E.	67	Complete carburetter (special type)	2	10	0
B. & B.	101	Float chamber body only	8	8	0
B. & B.	102	Float chamber cap and tickler	4	3	3
B. & B.	106	Float chamber needle valve	1	2	2
B. & B.	104	Float	2	6	6
B. & B.	118/134	Main jet complete	1	1	1
B. & B.	158/1	Fibre washer for same	1	1	1
B. & B.	138	Jet taper needle	1	4	4
B. & B.	135	Needle holder and screw	8	8	8
B. & B.	120/3	Spraying chamber	1	1	1
B. & B.	128	Spraying chamber cap lock ring	1	0	0
B. & B.	129	Spraying chamber cap with bushes	7	7	7
B. & B.	138	Pilot jet	1	0	0
B. & B.	139	Pilot jet air screw and lock nut	1	0	0
B. & B.	133	Venturi air intake	2	1	1
B. & B.	126	Throttle valve	4	4	4
B. & B.	145	Air valve	2	2	2
B. & B.	2	Valve springs (pair)	3	3	3
B. & B.	173/1	Control levers complete	2	6	6
C.	174/1	Air lever only	2	6	6
C.	159	Throttle lever only	4	6	6
L/4 E.	308	Control cables (inner and outer) complete each	6	6	6
L/4 E.	308	Locking nut for carburetter	4	6	6

**EQUIPMENT**

P.H.	125	Head Lamp Acetylene (P. & H. 125)	1	0	0
S.S.	47	Head Lamp Electric (Lucas SS 47) without brackets	2	11	0
P.H.	135	Tail Lamp Acetylene (P. & H. 135)	3	0	0
M.T.	110	Tail Lamp Electric (Lucas MT 110)	8	6	6
P.H.	137	Side Lamp Acetylene (P. & H. 137)	7	6	6
R.	335/S	Side Lamp Electric (Lucas R 335/S)	12	6	6
L.E.O.	18	Acetylene Generator with bracket	11	0	0
L.E.O.	19	Generator bracket only	2	6	6
L.E.O.	22	Electric Head Lamp Bulb	3	6	6

Equipment.—*contd.*

	£	s.	d.
L.E.Q. 23	Electric side or tail lamp bulb	1	6
L.E.Q. 27	Accumulator in carrier	1	0
L.E.Q. 28	Accumulator carrier only 68L/52S	5	0
L.E.Q. 29	Accumulator only L.J.W.7E	1	5
L.E.Q. 24	Head or tail lamp cable (per foot)	2	8
L.E.Q. 20/A	Acetylene generator rubber tubing (per yd.)	1	0
P.H. 125/A	Acetylene head lamp glass	8	0
P.H. 137	Acetylene side lamp glass	2	6
S.S. 47/A	Electric head lamp glass	4	0
L.E.Q. 33/B	Bonniksen speedometer complete (trip)	0	0
L.E.Q. 33/B2	Bonniksen speedometer complete (non-trip)	4	0
L.E.Q. 34B	Bonniksen speedometer gear box	16	0
L.E.Q. 35B	Bonniksen speedometer drive wheel complete	2	6
L.E.Q. 39/40B	Bonniksen speedometer cable outer and inner	6	3
L.E.Q. 39B	Bonniksen speedometer cable outer only	4	1
L.E.Q. 40/B	Bonniksen speedometer cable inner only	2	2
P.H. 201	Bulb horn P. & H. No. 201	7	6
P.H. 201/A	Rubber bulb only	3	0

## TOOLS

	£	s.	d.
L.T.K. 15	Six-inch combination pliers	1	6
L.T.K. 13	Six-inch screwdriver	9	9
L.T.K. 10	Double end forged spanner $\frac{1}{2}$ by $\frac{5}{16}$ in.	1	3
L.T.K. 11	Double end forged spanner $\frac{1}{2}$ by $\frac{3}{8}$ in.	1	6
L.T.K. 9	Tapet adjusting spanner	9	6
L.T.K. 1	Thin open end spanner for cone lock nut	0	6
R.T.K. 3	Flat open end spanner 3 sizes (.820, 1.011 and 1.2)	1	0
L.T.K. 14	Tyre lever	3	3
L/3 T.K. 21	Tyre pump	3	9
L.T.K. 8	Valve cap spanner	1	1
L.T.K. 5	Magneto spanner	4	4
L.T.K. 17	Tool rolls only (only) 2 off	4	0
T.T.K. 7	Tool rolls complete with all tools (less pump)	18	0
T/3 T.K. 24/5	Tool box only (see also luggage carrier)	3	9
R.T.K. 20	Grease gun (Fecalemit)	6	0
R.T.K. 4	Large single end and ring spanner (1.320)	1	3
T.T.K. 4	Flat open end spanner 3 sizes (1.1, .92 and 1.011)	1	0
T.T.K. 19	Carburettor lock nut spanner (1.480)	1	3
H.T.K. 19	Ring spanner (.919)	1	3
V.T.K. 19	Cone adjusting spanner	3	6
L.T.K. 1	Cone spanner	6	6

## SIDE CAR AND PARTS.

	£	s.	d.
L/4 F. 221	Sidecar main frame with 2 clip lugs attached	2	17
L/F. 148	Pinch bolt for clip lug (each)	7	6
S.T.D. 3	Nut for pinch bolt	3	3
T/3 F. 225	Sidecar attachment front bent arm	9	6
L/4 F. 223	Sidecar attachment rear bent arm	9	6
L/F. 95	Nut securing arm to frame lug	3	3
L/F. 147	Washer for above	2	2
L/F. 89	Clip lug for attachment to rear chain stay	5	6
L/F. 101	Bolts for clip lug only (each)	4	4
L/F. 138	Packing sleeve for clip lug (2 pieces)	1	2
L/F. 94	Large bolt for fixing sidecar frame to clip lug above	6	6
S.T.D. 1	Nut for bolt	2	2
L/F. 91	Sidecar body rear springs (each) 3 leaves	10	6
L/F. 96	Sidecar body rear spring fixing bolt long	4	4
L/F. 106	Sidecar body rear spring fixing bolt short	4	4
S.T.D. 4	Nuts for above (each)	2	2
L.F. 145	Rear spring pad lug plate	1	1
L.F. 152	Sidecar body front coil spring	1	6
S.T.D. 3	Nut for fixing bottom end of spring	3	3
S.T.D. 10	Washer for nut	1	1
L.F. 153	Bolt securing top end of spring	3	3
L.F. 154	Large washer for above	4	4
S.T.D. 3	Nut for above bolt	3	3
L.B.D. 1	Sidecar body rear bearer bar	3	3
S.T.D. 3	Each nuts for above (each)	3	3
H.B.D. 14	Spring washer for bearer bar ends	3	3
H.B.D. 10	Plain washer for bearer bar ends	1	1
S.T.D. 14	Split pin for bearer bar ends	1	1
H.B.D. 9	Coach bolt for fixing rear bearer bar	2	2
H.B.D. 13	Large washer for coach bolt	4	4
H.B.D. 24	Nut for above bolt	1	1
L.M. 24	Sidecar mudguard only	6	6
S.T.D. 4	Nuts for fixing to body studs (each)	2	2
S.T.D. 11	Washer for nut (each)	1	1
L/4 B.D. 25	Windscreen complete with all fittings (Matchless hinged)	7	6
M.B.D. 317	Hood to suit above screen with all fittings	1	15
T.B.D. 114	Sidecar body only (latest type touring) with apron	10	0
L/4 B.D. 38	Sidecar body only (Aluminium Sports type) with Apron	8	5
L.B.D. 4	Sidecar body apron only Sports type	10	6
M.B.D. 289	Sidecar body apron only Touring type	10	6
H.B.D. 58	Apron turn buttons (each)	3	5
L.F. 81/A	Sidecar wheel with ball cups only	1	2
C.H. 1	Sidecar wheel fixed cone	1	1
C.H. 2	Sidecar wheel adjusting cone	1	1

Sidecar and Parts.—*cont'd.*

			Q. S.	D.
C.H.	3	Locking washer for adjusting cone	2	2
C.H.	4	Castellated lock nut for adjusting cone	6	6
C.H.	5	Split pin for above	1	1
L.F.	6	Sidecar wheel hub end cap	1	6
L.F.	7	Sidecar hub balls (per set)	1	2
L.F.	8	Sidecar hub lubricator	5	6
L.B.D.	11	Sidecar door handle (touring body)	2	6
T/3 H.	29, 30	Sidecar tyre and tube (26 X 3.25 Palmer Flexicord)	2	15
T/3 H.	29	Cover only	2	6
T/3 H.	30	Inner tube only	8	6
L/4 F.	232	Sidecar wheel rim drilled and enamelled	10	0
L/4 F.	221	Wheel spokes (each)	1	1
R.H.	34	Spoke nipples (each)	2	6
C.H.	10	Sidecar wheel axle	3	6
C.H.	11	Fixing nut for above	9	9
C.H.	13	Inner hub cup	10	10
C.H.	14	Outer hub cup	10	10

## Special Instructions for Model T/S

## TAPPET ADJUSTMENT.

It is important that the tappets of the Model T/S are maintained in correct adjustment. When engine is cold there should be no appreciable up and down movement of push rods; that is to say, the clearance should be the nearest possible approach to nil. When making adjustment, care must be exercised, and it should be observed that each push rod is free to revolve when valve is closed, while at the same time possessing no up and down movement, as mentioned above.

## OVERHEAD VALVE ROCKER LUBRICATION.

Grease should be injected to the tappet rod ball end joints and to the bearings of the overhead rockers every 100 miles, via the three grease nipples provided. It is important that sufficient grease is injected to the rocker housing to cause a slight leakage at each end of the rocker bearings indicating that the bearings are actually flooded. Tecalemit Grease or Wakefield Castrolase recommended.

## REMOVING CYLINDER HEAD FOR DECARBONIZING.

First remove rear tank rail fixing bolt and also front fixing bolt of left side rail when this rail may be withdrawn by passing underneath saddle. Next remove the two bolts securing overhead rocker housing and withdraw housing and rockers together with push rods. Next remove sparking plug and petrol pipe and after unscrewing carburettor spraying chamber cap withdraw carburettor slides intact. Next remove both exhaust pipes and silencers. The four bolts and two nuts by which cylinder head is secured may next be removed when the latter is free to be lifted off. To remove valves it will be found convenient to rest the head of valve on a small block (wood preferably) while the spring is being compressed to permit the removal of the taper valve spring cap divided collar. It may be necessary to give the valve spring cap a sharp tap to release this taper collar. Care must be exercised when replacing cylinder head to tighten down equally all cylinder head fixing bolts and nuts and also to securely tighten down the bolts securing overhead rocker housing. No washer or jointing material of any description is required for making the joint between cylinder and head, and if any signs of blowing are observed while the head is removed the joint should be carefully ground in, in exactly the same manner as that employed while grinding in a valve.

If a large screwdriver or similar tool is used to depress the valve springs this can be done by pressing down the end by the right shoulder thereby leaving both hands free to manipulate the valve split taper collars.



# T/3 Parts special to 1929 Models only.

## FRAME AND FORK PARTS.

Part No.	Description	QTY	QTY	QTY
T/3F. 423	Frame only	1	1	0
V/2FF. 51	Steering head frame race	15	0	0
T/3FF. 52	Steering head crown race (nickelled)	2	5	0
T/3FF. 59	Set of steering head balls (50 in number)	3	2	0
T.F.F. 101/S.	Steering damper hand adjusting nut (ebonite)	1	6	0
(Also used for fork damper adjustment.)				
L/4FF. 39	Fork damper friction washers (each)	3	0	0
M/3FF.137/S.	Fork damper rubber washers (each)	5	0	0
M/3FF.138/S.	Fork damper metal washers (each)	4	0	0
M.B.D. 206	Spring washer (fits under hand adjusting nut)	2	0	0
T.F.F. 28	Fork spindle top (short)	1	1	0
T.F.F. 357	Fork link sleeve and link, left side (top)	4	10	0
T.F.F. 356	Fork link sleeve and link, left side (bottom)	4	10	0
T/3F. 394	Torque tube, left side	3	6	0
T/3F. 393	Torque tube, right side	4	3	0
T/3FF. 302	Fork girder, left side	16	0	0
T/3FF. 301	Fork girder, right side	16	6	0
T/3FF. 321	Fork handlebar clip lug	8	0	0
T.F.F. 116/S.	Steering damper sleeve (fits inside stem)	3	6	0
T.F.F. 115/S.	Steering damper long bolt (screws in above)	6	0	0
M/3FF. 97/S.	Steering damper stationary plate	9	0	0
V/2FF. 107	Steering damper moving plate	4	0	0
V/2FF. 108	Screw securing above to fork crown	2	0	0
V/2FF. 39	Steering damper friction washers (each)	1	0	0
H.T. 16	Steering damper rubber washer (fits under adjuster nut)	5	0	0
H.G.L. 7	Metal caps for rubber washer (each)	4	0	0
T.F.F. 42/S.	Steering head adjusting nut	8	0	0
T.F.F. 46/S.	Steering head adjusting nut lock nut	1	0	0

44

Part No.	Description	QTY	QTY	QTY
T/3B. 65	Front brake cable, as supplied	4	6	0
T/3B. 58	Front brake expander lever	9	0	0
V/2B. 11	Front brake expander return spring	4	0	0
T/3B. 66	Front brake expander cross head	6	0	0
V/2B. 9	Front brake cable stop (fixed to cover plate)	7	0	0
V/2B. 28	Front brake thumb adjusting nut	1	0	0
B.A.	Front brake rod spring adjusting nuts (each)	2	0	0
R/2B. 105	Rear brake rod	1	9	0
T/3B. 30	Rear brake expander lever	9	0	0
V/2B. 12	Rear brake rod cross head	6	0	0
V/2B. 29	Rear brake thumb adjusting nut	1	0	0
V/2B. 18	Rear brake rod spring	3	0	0
H.F.F. 63	Rear brake rod spring adjusting nuts (each)	2	0	0

## STANDS.

V/2F. 44	Rear stand only	12	6	0
----------	-----------------	----	---	---

## MUDGUARDS.

T/3M. 204	Rear mudguard only	13	0	0
-----------	--------------------	----	---	---

45

# SPECIAL INSTRUCTIONS FOR MODEL T/S.

## TAPPET ADJUSTMENT.

It is important that the tappets of the Model T/S are maintained in correct adjustment. When engine is cold there should be no appreciable up and down movement of push rods; that is to say, the clearance should be the nearest possible approach to nil. When making adjustment, care must be exercised, and it should be observed that each push rod is free to revolve when valve is closed, while at the same time possessing no up and down movement, as mentioned above.

## OVERHEAD VALVE ROCKER LUBRICATION.

Grease should be injected to the tappet rod ball end joints and to the bearings of the overhead rockers every 100 miles, via the three grease nipples provided. It is important that sufficient grease is injected to the rocker housing to cause a slight leakage at each end of the rocker bearings, indicating that the bearings are actually flooded. Tecalemit Grease or Wakfield Castrolase recommended.

## REMOVING CYLINDER HEAD FOR DECARBONISING.

First remove rear tank rail fixing bolt and also front fixing bolt of left side rail, when this rail may be withdrawn by passing underneath and withdraw housing and rockers together with push rods. Next remove sparking plug and petrol pipe and after unscrewing carburettor both exhaust pipes and silencers. The four bolts and two nuts by which cylinder head is secured may next be removed, when the latter is free to be lifted off. To remove valves it will be found convenient to rest the head of valve on a small block (wood preferably) while the spring is being compressed to permit the removal of the taper valve spring cap divided collar. It may be necessary to give the valve spring cap a sharp tap to release this taper collar. Care must be exercised when replacing cylinder head to tighten down equally all cylinder head fixing bolts and nuts and also to securely tighten down the bolts securing overhead rocker housing. No washer or jointing material of any description is required for making the joint between cylinder and head, and if any signs of blowing are observed while the head is removed the joint should be carefully ground in, in exactly the same manner as that employed while grinding in a valve.

If a large screwdriver or similar tool is used to depress the valve springs this can be done by pressing down the end by the right shoulder thereby leaving both hands free to manipulate the valve split taper collars.

# MODEL T/S PARTS DIFFERING FROM MODEL T/4.

(All parts not mentioned herein are common to both T/S and T/4 Models.)

## ENGINE.

### B.

LE 421R Bush (hardened steel, for roller bearing of overhead rocker), each, 1929 only ... 4 6 £ s. d.

### C.

TE 301/S Cylinder only ... 1 12 6  
 TE 302/S Cylinder head ... 2 2 0  
 ME 88 Cylinder head fixing bolt (3 off), each ... 8  
 LE 466/R Cylinder head stud (2 off), each ... 2  
 STD 4 Nut for above (each) ... 2  
 TE 386/S Cylinder head bolt with extension for rear support of overhead rocker housing ... 0  
 STD 3 Nut securing above to cylinder head ... 3  
 TE 389/S Bolt securing each end of rocker housing to cylinder head and cylinder head bolt respectively ... 0 0

TE 333/S Camshaft ... 1 0 0  
 TE 34/S Cam lever (inlet or exhaust) ... 3 6

LE 148/S Guide for valve (inlet or exhaust) ... 2 3

### O.

TE 321/S Oil supply pipe (tank to pump) ... 5 3

### P.

TT 134/S Petrol pipe ... 3 6

### R.

TE 34/S Rocker or cam lever (inside timing case) ... 3 6  
 TE 359/S Rocker (overhead) inlet, 1928 ... 8 6  
 TE 360/S Rocker (overhead) exhaust, 1928 ... 8 6  
 ME 68 Grease nipple for above (each) ... 2  
 TE 357/S Rocker housing (aluminium), supplied complete only, 1928 ... 10 0  
 LF 41 Rocker housing bolts 1/2 diam. (each), 1928 ... 3  
 TE 389/S Bolt securing rocker housing to cylinder head (each) ... 4

R—contd.

			£	s.	d.
MB	68	Grease nipple for rocker housing	...	2	2
TE	363/S	Bronze bush for rocker housing, 1928 (each)	...	1	6
R3E	359	Rocker overhead inlet, 1929	...	8	0
R3E	360	Rocker overhead exhaust, 1929	...	8	0
LE	439R	Rollers for above (per dozen), 1929	...	2	0
LE	421R	Roller race (hardened steel) for overhead rockers, 1929	...	4	6
R3E	363	Divided washers for rocker bearings (two pieces), 1929	...	6	6
R3E	337	Rocker housing (aluminium), supplied complete only, 1929	...	15	0
RF	71	Rocker housing bolts (fin. diam.), 1929, each	...	2	2

S.

TE	337/S	Spring for valves (outer), 1928	...	9	9
TE	388/S	Spring for valves (inner), 1928	...	6	6
TE	265/S	Silencer and exhaust pipe (left side)	...	2	0
TE	267/S	Silencer and exhaust pipe (right side)	...	2	0
LF	123	Tie bar for exhaust pipes	...	6	6
STD	4	Nuts for above (each)	...	2	2
LE	153	Sparkling plug with C & A washer, H.S.I.	...	6	0
LE	487R	Spring for valves (outer), 1929	...	1	0
TE	388S	Spring for valves (inner), 1929	...	6	6
LE	473R	Silencer fish tail only	...	7	6
TE	463	Silencer fish tail clip	...	1	0
TF	41	Silencer fish tail clip bolt	...	2	2
TE	465	Silencer fish tail clip bolt collar (plain)	...	2	2
TE	464	Silencer fish tail clip bolt collar (tapped)	...	3	3

T.

TE	273/S	Tappet head only (inlet or exhaust), 1928	...	1	0
TE	86	Tappet rod (inlet or exhaust) (long), 1928	...	3	0
TE	333/S	Timing gear camshaft	...	18	6
TE	34/S	Timing gear cam lever (inlet or exhaust)	...	3	6
ME	73	Tappet head only, 1929	...	7	7
TE	314S	Tappet rod, long (inlet or exhaust), 1929	...	3	4
VE	79	Tappet rod hardened ball end only	...	1	0
VE	13	Tubular push rod only	...	1	4
V2E	166/A	Tappet push rod covering tube complete, 1929	...	2	9
V2E	163	Tappet push rod covering tube, top portion only, 1929	...	1	0
V2E	166	Tappet push rod covering tube, bottom portion only, 1929	...	1	9
V2E	170	Tappet push rod covering tube internal spring, 1929	...	3	3

48

T—contd.

V2E	172	Tappet push rod covering tube internal washer, 1929	...	1	1
V2E	200	Tappet push rod covering tube external leather washer, 1929	...	1	1
V2E	173	Tappet push rod spring circlip, 1929	...	4	4

V.

TE	305/S	Valve stem (inlet)	...	6	6
TE	306/S	Valve stem (exhaust)	...	7	6
LE	438/R	Valve stem hardened steel cap	...	7	7
TE	387/S	Valve spring (outer), 1928	...	9	9
TE	388/S	Valve spring (inner), 1928	...	6	6
LE	490/R	Valve spring bottom cap	...	10	10
V2E	209	Valve spring top cap	...	1	2
V2E	210	Valve taper collar (2 pieces)	...	1	0
LE	148/S	Valve guide (inlet or exhaust)	...	2	3
LE	487R	Valve spring (outer), 1929	...	1	0
TE	388S	Valve spring (inner), 1929	...	6	6

GEAR BOX.

TGL	6	Gear rod crank (attached to gear box end plate)	...	1	0
-----	---	---	-----	---	---

FRAME AND FORK PARTS.

TF	292/S	Left side torque tube	...	4	3
V2F	108	Torque tube bridge bolt	...	10	10
TE	364/S	Short distance tube for left side	...	4	4
TF	310/S	Tank rail, left side	...	2	3
TF	311/S	Tank rail, right side, short front portion	...	1	0
TF	312/S	Tank rail, right side, long rear portion	...	1	6
TF	119/S	Fork crown and stem	...	16	0
TF	116/S	Steering damper body (fits inside stem)	...	3	6
TF	115/S	Long stud or bolt (screws in above)	...	6	6
TF	101/S	Steering damper adjusting knob	...	1	6
HT	16	Rubber washer (fits under above)	...	5	5
HGL	7	Rubber washer caps (each)	...	4	4
V3FF	97/S	Steering damper stationary plate	...	9	9
V2FF	107	Steering damper moving plate	...	4	4
V2FF	108	Screw securing above to fork crown	...	2	2
V2FF	39	Steering damper friction washers (each)	...	1	1
TF	42/S	Steering head adjusting nut	...	8	8
TF	46/S	Steering head adjusting nut lock nut	...	1	0

49

## TANK AND FITTINGS.

								£ s. d.
TT	105/S	Petrol tank, less all fittings	...	...	...	...	...	2 17 6
TT	145/S	Oil tank, less all fittings	...	...	...	...	...	15 0 0
LF	96	Bottom fixing bolt for oil tank	...	...	...	...	...	4 2 2
STD	4	Nut for above	...	...	...	...	...	3 6 3
TT	154/S	Petrol pipe	...	...	...	...	...	5 3 3
TE	321	Oil pipe	...	...	...	...	...	...

## FOOTRESTS.

TFR	16/S	Footrest tube, left side	...	...	...	...	...	1 6 6
TFR	18/S	Footrest rod	...	...	...	...	...	1 1 6

## CARBURETTOR.

B&B	1	Complete carburettor (special type)	...	...	...	...	...	2 10 0
B&B	101	Float chamber body only	...	...	...	...	...	8 0 0
B&B	102	Float chamber cap and tickler	...	...	...	...	...	4 3 3
B&B	106	Float chamber needle valve	...	...	...	...	...	1 1 2
B&B	104	Float	...	...	...	...	...	2 2 6
B&B	118/134	Main jet complete	...	...	...	...	...	1 1 9
B&B	158/1	Fibre washer for same	...	...	...	...	...	1 1 1
B&B	035	Jet taper needle	...	...	...	...	...	10 7 7
B&B	135	Needle holder and screw	...	...	...	...	...	8 6 6
R&B	120/3	Spraying chamber	...	...	...	...	...	1 1 8
B&B	128	Spraying chamber cap with brushes	...	...	...	...	...	1 1 0
B&B	129	Spraying chamber cap lock ring	...	...	...	...	...	10 7 7
B&B	138	Pilot jet	...	...	...	...	...	2 1 1
B&B	139	Pilot jet air screw and lock nut	...	...	...	...	...	4 4 7
B&B	133	Venturi air intake	...	...	...	...	...	2 1 1
B&B	126A	Throttle valve	...	...	...	...	...	4 4 7
B&B	126B	Air valve	...	...	...	...	...	2 1 2
B&B	145	Valve springs (pair)	...	...	...	...	...	1 1 2
B&B	2	Control levers complete	...	...	...	...	...	7 0 0
B&B	173/1	Air lever only	...	...	...	...	...	2 2 6
B&B	174/1	Throttle lever only	...	...	...	...	...	2 2 6
B&B	159	Control cables assembled (each)	...	...	...	...	...	2 3 3
L4E	308	Locking nut for carburettor	...	...	...	...	...	6 6 6