Matchless

IN NAME & REPUTATION

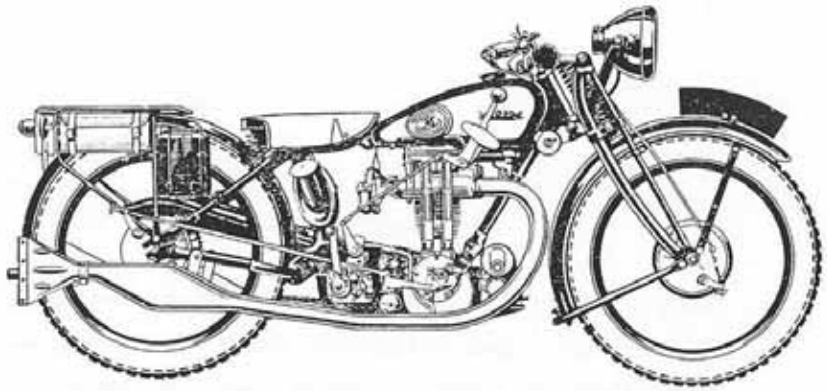
INSTRUCTION BOOK

AND

SPARE PARTS LIST

MODEL R/3

DRIVING AND ADJUSTMENT INSTRUCTIONS.



"MATCHLESS" MODEL "R/3"

MATCHLESS MOTOR CYCLES

(COLLIERS) LIMITED,

Manufacturers,

Registered Offices:

44-45, Plumstead Rd., 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 and Cables: "*Matchless,*" *Woolwich.*

Telephone: *Woolwich* 1010 (4 *lines*).

Code { *A.B.C. 5th and 6th Edition*
Bentley's
and Private Code

All correspondence to:—

Offices: 44-45, Plumstead Road, LONDON, S.E.18.

INTRODUCTION.

Following our previous practise 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 " R/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 19 and 20 for instructions re ordering parts and particulars of our Deposit Account System.

MATCHLESS MOTOR CYCLES (COLLIERS) LTD

General Description.

STARTING.

Before describing the actual method of starting, it is perhaps advisable to describe the various lever positions, which should all be mastered before taking the machine on the road. Neutral or free engine position of the gear is the first position forward from the rearmost position, and is indicated by the letter N, with which gear lever will coincide. The engine must always be started with the gear lever in this neutral or free position.

Ignition is advanced or retarded by means of a lever on the left side of the 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 effects carburation on very small throttle openings and dead slow running. Owners are advised to refrain from making any adjustment without good cause, the foregoing being intended merely to convey a rough idea of the functioning of the carburetter.

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 kickstarter 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 the 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,

Starting—contd.

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, 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 excessively inflate either front or rear tyre, but particularly the former. The pressures recommended are 16lbs. front and 22lbs. rear. These pressures may best be checked by means of a Schrader low pressure tyre gauge, an accessory which every motor-cyclist should possess.

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 bearings, piston rings, etc. The first 500 miles of an engine's existence is far more important than the next 5,000.

" **Dont's** "—contd.

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 exhasut, 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 approximate correct setting (after the initial running-in period referred to above) is 14 to 18 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 the 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 R or XL—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 R or XL specially recommended.

To dismantle the pump, if this is ever necessary, first unscrew the driving spindle bush (R.H. thread part P.O.P.6), and so remove worm.

WARNING.

The pump driving worm must never be revolved with either the end plate or end cam removed from the pump body.

The pump plunger must never be removed from the pump body unless the driving worm and bush have been first removed.

Failure to observe these points will immediately render the pump plunger and driving worm liable to serious damage.

CHAINS.

It will probably be found that the front chain, and also magneto chain, will receive sufficient lubrication from the engine air release valve, but, however, they 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, 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 (Tecalimit Grease or Wakefield Castrolease 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 Castrolease, 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 Castrolease suitable).

In addition to the foregoing, all parts such as brake 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.—First expose the tappet requiring adjustment by sliding up the lower portion of the tappet rod covering tube, which, it will be found, can be held in a raised position by resting the flanged bottom cap on one of the cylinder fins. Next, hold tappet body (bottom hexagonal portion) with spanner provided, and slack off nut securing the tappet head with the smaller spanner, also provided. Then screw the concave tappet head up or down as may be required, until the correct clearance is obtained, after which securely lock in position with lock nut.

IMPORTANT NOTE.—Clearance of valves should always be tested with engine warm (not hot), and the correct clearance is the nearest approach to nil possible. When making adjustments, care must be exercised, and it should be observed after adjustment that each push rod is free to revolve when the valve is closed, while at the same time possessing no up-and-down movement, as mentioned above.

TO REMOVE CYLINDER FOR DECARBONIZING, ETC.

First remove sparking plug, petrol pipe, and both exhaust pipes. Then unscrew the top cap of carburetter mixing chamber and withdraw air and throttle slides. Next telescope both tappet rod projecting tubes sufficiently to permit of the small spring plunger on the top half engaging with the hole in the lower half, which engagement will retain the tubes in this telescoped position. Next remove all cylinder head fixing bolts and nuts, and also the bolt securing cylinder head tubular stay at its front end. Now, after detaching the top end of gear rod, the cylinder head, intact with rocker housing, may be lifted clear and withdrawn from the right-hand side of cycle. It may be necessary to give the head a sharp jolt upwards to release the spigoted head joint, which tends to become firmly fixed with carbon deposit, and it is also advisable to see that both valves are closed during the removal process. In re-assembling, it will be found most convenient to place the cylinder head in position, but not bolted down, before introducing the tappet rods and their covering tubes, and the only care necessary in this re-assembling process is to make certain that the joint faces are absolutely clean and to tighten all the fixing bolts down evenly. Should the head joint, upon dismantling, show any signs of leakage, it should be ground-in in exactly the same manner prescribed for grinding-in valves, great care, of course, being necessary to prevent the admission of any grinding mixture into the cylinder interior, and to remove all traces of the grinding mixture from the joint faces prior to finally placing the head in position.

TO GRIND IN VALVES.

After cylinder head has been removed as described, to remove valve springs it will be found convenient to rest the head of valve on a small block (wood preferably) while the spring is being compressed to allow of the removal of the taper valve cap divided collar. It may be necessary to give the valve spring cap a sharp tap to release this taper collar. After removing all carbon deposit the face of each valve seating should be smeared with a good grinding paste (this may be obtained already mixed) and the valve revolved slightly backward and forward (never revolve completely) while light pressure is applied to the head. During this operation it is advisable to occasionally raise the valve off its seating and turn in the guide slightly, afterwards repeating the backward and forward movement. Generally one application only of grinding paste will be ample for the inlet, but two or three applications may be necessary to entirely restore the exhaust valve seating. After this grinding in has been satisfactorily accomplished, all traces of the grinding mixture should be carefully washed off with petrol, and both valve stems and guides cleaned thoroughly. Prior to refitting it is advisable to smear each valve stem with Graphite Grease.

TO EXPOSE VALVE TIMING GEAR.

First detach at tank end the oil pipe to pump, and, to prevent leakage of oil, force into the oil pump union on the under side of tank a tapered wooden plug. Then detach oil pipe from oil pump. Next remove the two small split pins securing valve lifter casing stop and lever and all timing cover screws, when the cover may be gently forced off.

TO REMOVE CAM WHEEL.

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

TO REPLACE CAM WHEEL AND TIMING COVER, ETC.

First see that the marked tooth on small timing pinion is vertical, then, holding both cam levers up with the fingers, gently insert the cam wheel with the mark on same coinciding with that on the small pinion. Then, holding valve lifter lever in the correct position, gently press the cover home, after which the fixing screws should be firmly tightened down with a good stout screwdriver.

NOTE.—It is advisable to smear the edge of the timing gear cover with seccotine or quick-drying gold size just before fitting.

TO REMOVE MAGNETO.

First withdraw the rubber footrest on left side footrest. This rubber is merely a push-on fit. Next remove the two nuts and washers securing the outer half of chain cover and remove cover. Then disconnect the joint link of magneto chain and remove the carbon brush holder intact 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 shaft loose, revolve engine carefully until the piston is exactly at the top of the firing stroke. (This is the topmost position of the piston, at which both valves are closed.) Now fully retard the magneto, and, taking care not to move the engine from the top of stroke position, gently turn the magneto armature in a clockwise direction (i.e., the direction of normal rotation), until the contact points are just about to break, in which position the sprocket fixing bolt should be carefully tightened. It is advisable to check the setting once, and this may best be done by again setting the piston to the top dead centre of explosion stroke and moving the ignition lever on handlebar to and fro from fully retard to, say, about one-third advanced position. During this small movement the contact points should be observed to definitely part.

TO DISMANTLE HUB BEARINGS.

After wheels have been removed (see removing wheels), unscrew locking nut securing adjusting side cone, and, after, unscrew the adjusting cone, when spindle may be withdrawn. Upon assembling, coat each roller bearing with a small quantity of best quality transmission grease, and after securing lock nut for adjusting cone, make quite certain that a very slight amount of shake can be felt in the bearings. It must be understood that taper roller bearings do not require to be adjusted tightly, and unless a trifling amount of slackness is observed, it is possible, quite unknowingly, to impose an enormous crushing strain on the slightly tapered rollers without the same being made apparent by undue friction. This slight slackness must therefore always be maintained.

TO ADJUST MAGNETO CHAIN.

It will be observed that magneto chain adjustment is obtained by varying the position of the magneto upon its platform, slotted bolt-holes being provided to allow of this. Correct chain adjustment is such that when the top of the chain is lightly pressed up and down, a movement or whip of a quarter-inch is obtained. To adjust chain, slack off the two nuts only on the underneath side of magneto platform and slide the magneto backwards or forwards as the case may be, afterwards securely tightening the nuts securing the magneto in position.

TO INSPECT GEAR BOX INTERIOR.

To remove gear box end plate for examination of gears, first remove foot brake pedal. Next, disconnect the clutch control wire by slackening off the adjustment, when the nipple can be slipped out of the slotted end of the small operating lever; also disconnect the lower end of the gear operating rod. Next, remove clutch wire from the lug on gear box end plate. Next, place gear lever in top gear position, and, after removing the four gear box end-plate fixing nuts, gently draw off the plate intact with gear lever and kickstarter gear.

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, of course, run out.

To re-assemble, after thinly coating with secrotine or quick-drying gold size, offer up the end plate, taking care to keep the gear lever in top position, and to engage striker shoe into both pinions, and shafts in their respective housings, when gently tap end plate home, after which carefully tighten nuts and replace oil, etc.

CLUTCH ADJUSTMENT.

In the event of clutch slip being experienced, the adjustment of the clutch operating cable should be first suspected. When correctly adjusted, it should be possible to move the clutch operating arm (part to which lower end of cable is attached) to and fro with fingers slightly, and if this free movement cannot be felt, the cable stop should be adjusted accordingly. Alternatively, the screw at the bottom

Clutch Adjustment—contd.

of the clutch operating arm may be screwed out slightly to give the same effect. The lock nut securing this small screw must be carefully tightened if adjustment is made here.

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 three-eighths of an inch 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 slacken off rear wheel spindle nuts and screw in each side chain adjuster bolt an equal amount until a whip of three-eighths to half an inch is obtained upon pressing chain lightly up and down, after which carefully re-tighten axle nuts.

NOTE.—Care is necessary upon tightening rear chain to leave the wheel in the correct alignment. When correct, a piece of thin string stretched taut across both wheels and about four inches from and parallel to the ground should be observed to just touch each tyre at both sides of wheel centre simultaneously. Alternatively, a long straight wooden batten about five feet long is a very handy article to be used for the purpose of checking wheel alignment, applied as in the case of string, parallel to and about four inches from the ground.

TO REMOVE REAR WHEEL.

Put down rear stand. Then disconnect rear end of foot brake rod cross head by removing the split pin which keeps the part attached to the expander lever. Next, slack off both axle nuts and remove the bolt securing brake cover plate, when the wheel may be drawn back in slotted fork ends until clear.

NOTE.—Removal of the left-side silencer fish tail, although not absolutely necessary, will greatly facilitate the easy removal of rear wheel.

TO REMOVE FRONT WHEEL.

Put down both stands (front stand only is not sufficient to provide a safe balance). Then disconnect front brake cable rod extension cross head by removing the split pin which keeps the part attached to the expander lever, and slip the cable out of the slotted stop piece. Then slack off well each side axle nut, and with a stout screwdriver or suitable lever, gently spring out each side fork in turn, pressing wheel down at the same time.

TO ADJUST FRONT FORKS.

Adjustment to the front fork spindles for side wear. The need for adjustment of 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 anti-clockwise 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.

NOTE.—It is not necessary under any circumstances to interfere with the adjustment of the top short fork spindle, which adjustment, owing to the fork damper construction, is unimportant within very wide limits. It should perhaps be explained that the correct setting for this spindle is obtained as follows:—After removing both end nuts, the spindle is revolved in a clockwise direction, looking at the hexagonal end, until the fork side links are seen to commence to spread apart. The spindle is then turned backward two to three complete revolutions, and then secured by the two end nuts.

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 top nut on top of fork stem must be slackened off, and the underneath nut tightened until all shake has disappeared, when carefully lock with the top lock 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 ADJUST WHEEL BEARINGS.

To adjust either rear or front wheel bearings, slack off the left side spindle nut, and, with the thin cone spanner provided, slack off the thin adjusting cone lock nut, after which, with the same spanner, turn the adjusting cone in the required direction i.e., clockwise to tighten or vice versa, after which lock the adjusting cone in position with the lock nut provided, and, lastly, carefully re-tighten the axle nut.

IMPORTANT NOTE.- It must be understood that taper roller bearings must not be adjusted tightly, and unless a trifling amount of slackness is observed, it is possible, quite unknowingly, to impose an enormous crushing strain on the slightly tapered rollers without same being made apparent by undue friction. This slight slackness must therefore always be maintained.

TO ADJUST FORK DAMPER.

The fork action damper can best be adjusted while the cycle is actually in motion, and a badly corrugated surface, such as may be found on many bus routes, provides the best condition for the purpose. The ebonite damper hand nut should be screwed sufficiently tight to make the fork action sluggish under such circumstances as those described, and will subsequently require very little variation for other conditions of road surface to provide the maximum degree of comfort.

TYRE INFLATION.

The importance of correct tyre inflation cannot be too strongly emphasised, and, for some unaccountable reason, motor-cyclists in general are the worst offenders in this respect, subjecting themselves and their mounts to quite undesirable and unnecessary vibration from road shocks. The pressures we recommend to be strictly adhered to are 16lbs. per square inch in the front and 22lbs. per square inch in the rear. These pressures can be instantly checked by means of a Schrader Low Pressure Tyre Gauge, an accessory which every motor-cyclist should, in his own interests, possess.

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 motorcycle 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 taken 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.

ENGINE RUNS BADLY. Probable cause:—

Magneto contact-breaker sticking.
Valve sticking.
Weak valve spring.
Plug points too close.
Water on plug or magneto pickup (carbon brush holder.
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:—

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

LEGAL MATTERS.

NOTE.—In view of the growing public objection to noisy motorcycles, 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 the practices enumerated.

To comply with the Law relating to motorcycles, the owner of a "Matchless" Model "R/3" must:

Legal Matters—contd.

1. Hold a driver's license, which can be obtained from the Chief Constable or Corporation of a County Borough, or from the County Council. The charge for this license is 5/- yearly, and must be renewed annually from the date of issue. A Motorcar driver's license 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 License 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 the requisite remittance which varies according to the date of registration and the term to be covered. For a full year, January 1st to December 31st the fee is £3. In some districts evidence that the vehicle to be licensed is new and has not previously been registered may be demanded. Manufacturers' or Agent's Invoice will serve.
4. See that his front plate is illuminated at night on both sides.
5. Never drive at a speed which is dangerous to the public.
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 (with equipment required by law—220lbs.
Type or Model—Matchless Model "R/3."
Manufacturer's horse-power—2.46.

Note.—The above weight applies only to machines without electric equipment.

GUARANTEE.

We give the following guarantee with our motorcycles, motorcycle combinations and sidecars, 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 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 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:—

1. 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.
2. 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.
3. 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 make 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 lie here AT THE RISK OF THE OWNER, and this guarantee and any implied guarantee, warrantee or condition shall not be enforceable.

We do not guarantee specialities 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.

MATCHLESS MOTOR CYCLES (COLLIERS) LTD.

INTRODUCTION.

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

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 19 and 20.

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.

MATCHLESS MOTOR CYCLES (COLLIERS) LTD.

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.

IMPORTANT NOTE RE 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.

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 quotations new parts and repairs that we consider essential to make the machine suitable and satisfactory for the road.

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 senders' 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.
8. Goods to the value of 5/- and over only can be sent upon request per C.O.D.

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. Any such damage should be immediately reported.

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

Goods not unpacked at the time of receipt should always be signed for as "Unexamined."

ENGINE PARTS.

A.

			£	s.	d.
R.E.	20	Axle for flywheel (transmission side) ...		4	9
R.E.	26	Axle for flywheel (timing gear side) ...		4	6
L/3E.	317	Axle for flywheel (crankpin) ... ... (See flywheels for other parts.)		4	6

B.

R.E.	27	Bush for flywheel axle (timing gear side)		2	6
L/3E.	234	Bush for camshaft (crankcase side) ...		1	3
L/3E.	234	Bush for camshaft (timing gear cover side)		1	3
R.E.	45	Bush for gudgeon pin		2	6
R.E.	21	Bush (hardened steel) for roller bearing transmission side of crankcase ...		3	6
L.E.	421/R.	Bush (hardened steel) for roller bearing of O/H valve rocker (each) ...		4	6

C.

R/3E.	301	Cylinder only	1	10	6
R.E.	2	Cylinder holding down stud			2
S.T.D.	4	Cylinder holding down stud nut			2
R.E.	3	Cylinder base paper washer			1
R/3E.	302	Cylinder head	2	2	0
M.E.	88	Cylinder head fixing bolts (long head) ...			8
R/3E.	388	Cylinder head fixing bolts (short head) ...			6
R/3E.	386	Cylinder head bolt with extension supporting rear end of O/H rocker housing			9
S.T.D.	3	Nut securing above to cylinder head ...			3
T.E.	389/S.	Bolt securing O/H rocker housing to cylinder head bolt and cylinder head respectively			4
R/3E.	308A.	Crankcase with studs and bushes (supplied complete only)	3	5	0
R.E.	50	Crankcase bolt ⅜ diam. (short)			3
R.C.	24	Crankcase bolt 5-16ths diam. (long) for front chain cover support			3
R.C.	28	Short spacer tube for above (rear of chain cover)			3
L.M.	16	Long spacer tube for above (inside chain cover)			4

C.—contd.

			£	s.	d.
S.T.D.	3	Nut for ⅜ crankcase bolt			3
S.T.D.	10	Washer for ⅜ crankcase bolt			1
M.E.	18	Crankcase bolt (short) 5-16ths diam. ...			6
R.E.	52	Crankcase bolt (medium) 5-16ths diam. for magneto platform			3
LF.	123	Crankcase bolt (long) 5-16ths diam. for exhaust pipe support			6
R.E.	91	Short spacer tube for above			4
L/4M.	126	Long spacer tube for above			5
S.T.D.	4	Nut for crankcase bolt 5-16ths diam. ...			2
S.T.D.	11	Washer for crankcase bolt 5-16ths diam.			1
R.C.	29	Chain cover support stud (screws in crankcase)			7
S.T.D.	4	Nut for support stud 5-16ths (each) ...			2
L.M.	16	Spacer tube for support stud			4
S.T.D.	11	Washer tube for support stud			1
T.E.	60	Timing gear cover with bush		7	6
L/3E.	237	Timing gear cover screw (see timing gear)			2
R.E.	16	Connecting rod (bare)		8	6
R.E.	44	Connecting rod with small end bush ...		11	0
R.E.	44/A.	Connecting rod complete with bush and big end assembly (i.e., crankpin, rollers, etc.)	1	1	6
T.E.	333/S.	Camshaft (see also timing gear)	1	1	0
T.E.	34	Cam lever (inlet or exhaust)		3	6
5/3E.	317	Crank pin only		3	6
L/3E.	70	Crank pin nuts (each)			6
L/3E.	306	Crank pin rollers (per set)		5	0

D.

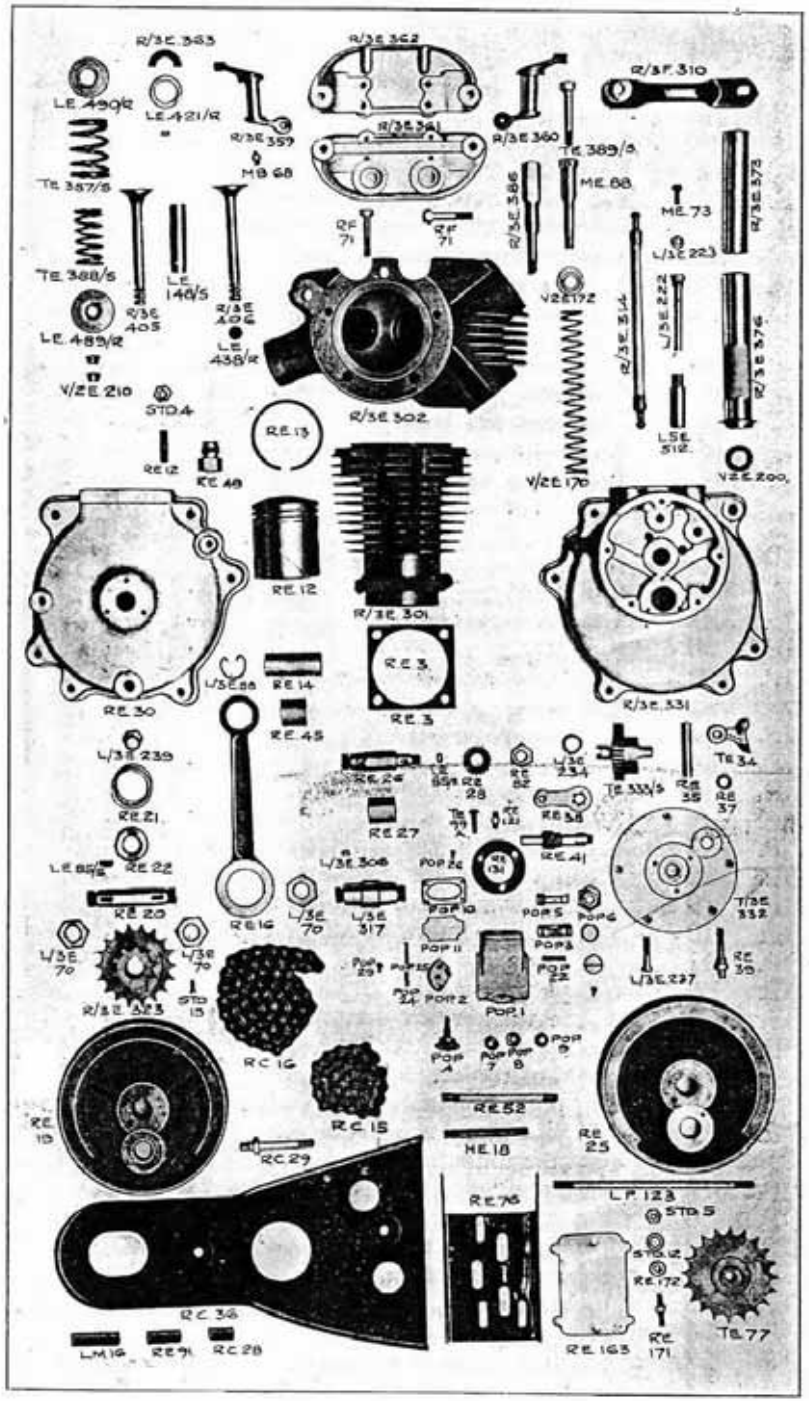
L/3E.	239	Drain plug for crankcase			4

E.

Engine bolts (see crankcase section)
Exhaust valve (see valves)
Exhaust pipe (see silencers)
Exhaust tappet (see timing gear)

F.

R.E.	25	Flywheel (timing gear side)		10	0
R.E.	19	Flywheel (transmission side)		10	0
L/3E.	317	Flywheel crankpin		4	6
L/3E.	70	Nuts for fixing above (each)			6
S.T.D.	15	Lock screw for nuts (each)			2
R.E.	20	Flywheel axle (transmission side) ...		4	9
L/3E.	70	Nut for same			2



ENGINE PARTS, ETC.

F.—contd.

			£	s.	d.
S.T.D.	15	Lock screw			2
R.E.	82	Nut for securing small timing pinion ...			2
L/3E.	95	Keys for flywheel axle (each)			3
L.E.	85/S.	Key for locating small timing pinion ...			4
R.E.	26	Flywheel axle (timing gear side)		4	6
L/3E.	70	Nut for same (inside)			6
S.T.D.	15	Lock screw			2

G.

R.E.	14	Gudgeon pin only		3	0
L/3E.	88	Gudgeon pin securing spring ring (each)			1
R.E.	45	Gudgeon pin bush		2	6
L/5E.	512	Guide for tappet (inlet or exhaust) ...		4	0
L.E.	148/S.	Guide for valve (inlet or exhaust) ...		4	0

O.

I./3E.	239	Oil drain plug for crankcase			4
R/3E.	320	Oil feed pipe (pump to tank)		5	0
P/OP.	30	Oil pump complete		17	6
P/OP.	1	Pump body only		6	0
P/OP.	2	Oil pump cap with cam projection ...		1	0
P/OP.	3	Oil pump plunger		3	0
P/OP.	4	Oil pump regulator spindle		1	6
P/OP.	5	Oil pump driving worm		1	6
P/OP.	6	Oil pump screw bush			9
P/OP.	7	Fibre washer for regulator spindle ...			1
P/OP.	8	Steel washer for regulator spindle ...			1
P/OP.	9	Spring washer for regulator spindle ...			1
P/OP.	10	Oil pump window cover or cap		1	0
P/OP.	11	Oil pump glass window			2
P/OP.	17	Oil pump screwed cap			6
P/OP.	23	Fibre washer for screwed cap			1
P/OP.	29	Lock screw for screwed cap and screwed bush			1
R.E.	54	Oil pipe nipple			3
P/OP.	14	Oil pipe gland nut (pump end)			4
R.E.	53	Oil pipe union nut (tank end)			4
P/OP.	19	Screw securing cam cap			1
P/OP.	20	Paper washer for cam cap			1
P/OP.	22	Oil pump spring			3
P/OP.	24	Ratchet pin for regulator			1
P/OP.	25	Ratchet spring for regulator			1
P/OP.	26	Screw for window cap			1
P/OP.	27	Oil pump fixing screw			1
P/OP.	28	Locking washer for screw			1
R.E.	131	Oil pump paper joint washer			1
L/3E.	287	Oil pipe filter and union for tank ...		2	3

P.

			£	s.	d.
R.E.	12	Piston (bare)		8	6
R.E.	134	Piston complete with rings and gudgeon pin		13	8
R.E.	13	Piston ring (each)		1	0
L/3E.	88	Spring ring for gudgeon pin			1
R.E.	28	Pinion (small timing)		3	9
R.E.	82	Nut for fixing above			2
R.E.	35	Pin or axle for cam levers		1	3
		Petrol pipe (see carburetter)			

R.

R.E.	49	Release valve screwed body		1	0
L/3E.	240	Release valve diaphragm			2
R.E.	22	Rollers and cage for crankcase (transmission side)		5	0
R.E.	21	Hardened steel outer race for above ...		3	6
L/3E.	306	Rollers for big end (per set of 30) ...		5	0
T.E.	34	Rocker or cam lever (inlet or exhaust) ...		3	6
R/3E.	359	Rocker O/H (inlet)		8	0
R/3E.	360	Rocker O/H (exhaust)		8	0
L.E.	439/R.	Rollers for O/H rockers (per doz.) ...		2	0
L.E.	421/R.	Roller race, hardened steel, for O/H rockers (each)		4	6
R/3E.	363	Divided washers for roller bearings (two pieces)			6
R/3E.	357	Rocker housing (aluminium), supplied complete only		15	0
R.F.	71	Rocker housing bolts ¼ diam. (each) ...			2
B.M.	68	Grease nipple for rocker housing (each)			2
T.E.	389/S.	Bolt securing rocker housing to cylinder head and extended cylinder head bolt			4

S.

L/3E.	158	Sparking plug with C. and A. washer ...		5	0
L/3E.	246	Sparking plug C. and A. washer only ...			2
L.E.	487/R.	Spring for valves (inlet or exhaust) outer		1	0
T.E.	388/S.	Spring for valves (inlet or exhaust) inner			9
L/3E.	88	Spring ring for gudgeon pin fixing (each)			1
R.E.	114	Spring for valve lifter cable			2
R/3E.	323	Sprocket for engine shaft (transmission and magneto)		7	0
R/3E.	365	Silencer and exhaust pipe complete with fish-tail L/S	1	10	0
R/3E.	367	Silencer and exhaust pipe complete with fish-tail R/S	1	10	0
L.E.	475/R.	Silencer fish-tail only		7	6

S.—contd.

			£	s.	d.
H.B.D.	36	Silencer fish-tail pinch bolt			4
S.T.D.	4	Nut for fish-tail pinch bolt			2
V/2E.	170	Spring for tappet rod cover tubes (each)			3
V/2E.	173	Spring circlip with stud projection for tappet rod cover tubes			4
R.E.	73	Silencer and exhaust pipe tie bolt ...			7
S.T.D.	4	Nuts for above (each)			2
S.T.D.	4	Nut securing silencer to rear chain stays (each)			2

T.

L/5E.	512	Tappet guide (inlet or exhaust)		4	0
L/3E.	321	Tappet complete (inlet or exhaust) ...		2	5
L/3E.	222	Tappet body only		2	0
M.E.	73	Tappet head only			7
R/3E.	314	Tappet push rod complete		3	6
V.E.	79	Tappet push rod hardened ball end only (each)		1	0
R/3E.	313	Tubular tappet push rod only		1	2
R/3E.	376	Tappet push rod covering tube bottom portion		1	9
R/3E.	373	Tappet push rod covering tube top portion		1	0
V/2E.	170	Tappet push rod covering tube spring ...			3
V/2E.	172	Tappet push rod covering tube washer for spring			3
V/2E.	200	Tappet rod covering tube leather washer			1
V/2E.	173	Tappet rod covering tube spring circlip ...			4
L/3E.	223	Tappet head lock nut			4
T.E.	60	Timing gear cover with camshaft bush ...		7	6
		Timing gear cover bush (see bushes)			
R.E.	28	Timing gear small pinion		3	9
R.E.	82	Nut for fixing above to flywheel axle ...			2
T.E.	333/S.	Timing gear cam shaft	1	0	0
R.E.	34	Timing gear cam lever (inlet or exhaust)		3	6
R.E.	35	Timing gear cam lever axle		1	3
R.E.	37	Spacing collar for above			7
L/3E.	237	Timing gear cover screw (cheese head) ...			2
R.E.	39	Timing gear cover stud screw for valve lifter cable anchorage			9

U.

R.E.	53	Union nut for oil pipe (each)			4
L/3E.	287	Union for oil pipe with filter (screws into tank)		2	3
P/OP.	14	Union for oil pipe (screws into pump) ...			4
R.E.	54	Nipple for oil pipe			3

V.

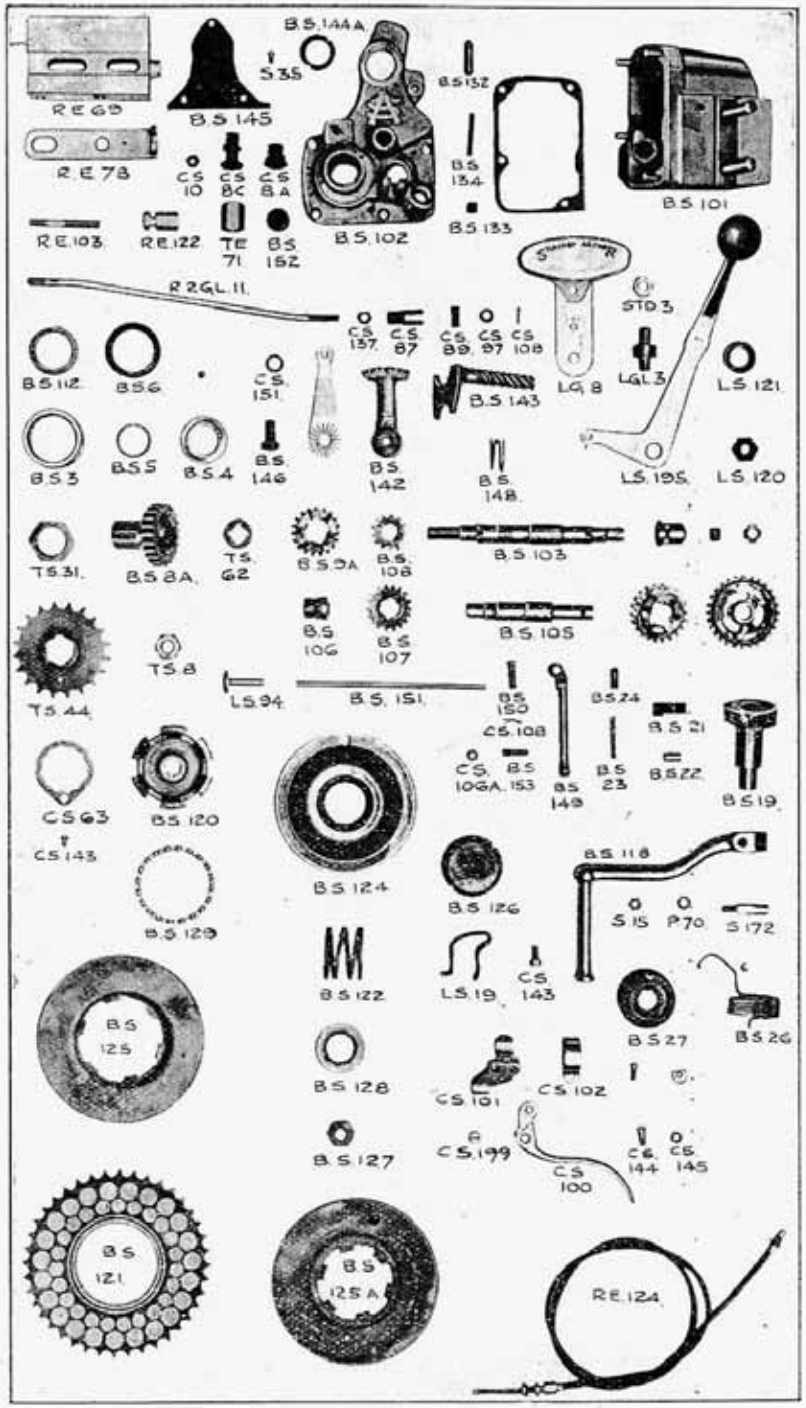
			£	s.	d.
R/3E.	405	Valve stem only (inlet)		7	0
R/3E.	406	Valve stem only (exhaust)		8	6
L.E.	487/R.	Valve spring (inlet or exhaust) outer ...		1	0
T.E.	388/S.	Valve spring (inlet or exhaust) inner ...			9
L.E.	490/R.	Valve spring cap bottom			10
V/2E.	209	Valve stem cap top		1	2
V/2E.	210	Taper split valve collar (two pieces) ...		1	0
L.E.	438/R.	Valve end hardened steel cap			6
L.E.	148/S.	Valve guide (inlet or exhaust)		4	0
R.E.	41	Valve lifter cam block and shaft ...		4	3
R.E.	38	Valve lifter lever (fits splined end of above)		1	0
L.F.	19	Nut securing valve lifter lever			2
S.T.D.	10	Washer for nut			1
R.E.	42	Valve lifter cable crosshead for adjuster			6
S.T.D.	6	Split pin securing above to R.E. 38 ...			1
S.T.D.	11	Washer fits behind split pin			1
R.E.	117	Anchoring bracket for valve lifter cable nipple			6
R.E.	114	Valve lifter cable spring			2
R.E.	120	Valve lifter cable, inner and outer (assembled)		2	10
R.E.	120A.	Valve lifter cable, inner only			9
R.E.	120B.	Valve lifter cable, outer only		2	1
R.E.	139	Valve lifter cable nipples (each) ...			3
R.E.	115	Valve lifter lever for handlebar (see handlebars)			
R.E.	116	Valve lifter cable adjuster with lock nut			9
H.E.	36A.	Valve lifter cable outer armouring or sheath			3

GEAR BOX AND PARTS.

B.S.	101	Gear box shell only	1	5	0
B.S.	102A.	Gear box end plate		16	0
C.S.	10	Gear box end plate fixing nuts (each) ...			2
C.S.	11	Spring washer for above (set of 4) ...			6
B.S.	103	Gear box main axle or shaft		11	0
T.S.	8	End nut for above (fixing clutch hub) ...			5
C.S.	118	Washer for above nut.			1
B.S.	105	Gear box layshaft or axle		9	0
B.S.	8	Main shaft high speed or sleeve pinion (less races)		12	6
B.S.	4	Ball race or cone for above (each) ...		1	9
B.S.	3	Ball cup for sleeve pinion		4	6
B.S.	9	Middle gear sliding pinion for mainshaft		7	0
B.S.	13	Middle gear sliding pinion for layshaft ...		7	6
B.S.	107	Layshaft small pinion		5	0

Gear Box and Parts—contd.

			£	s.	d.
B.S.	108	Mainshaft small pinion		3	9
B.S.	14	Low gear and kickstarter pinion ...		8	6
B.S.	19E.	Kickstarter axle and bush (extended type)		11	6
B.S.	20	Kickstarter axle bush (steel)		1	6
B.S.	21	Kickstarter pawl		1	3
B.S.	22	Kickstarter pawl pin			3
B.S.	23	Kickstarter pawl spring			1
B.S.	24	Kickstarter pawl spring plunger			3
B.S.	25	Kickstarter cam (fixed to end plate) ...			3
B.S.	26E.	Kickstarter return spring		1	0
B.S.	27	Kickstarter return spring cap		1	0
L.S.	145/A.	Kickstarter axle tubular sleeve			3
B.S.	118E.	Kickstarter crank (special cranked type)		10	0
S.	172	Kickstarter crank cotter pin only ...			2
S.	15	Cotter pin nut			1
P.	70	Cotter pin washer			1
T.S.	44	Sprocket for rear chain		7	6
T.S.	31	Sprocket fixing nut			9
C.S.	63	Sprocket fixing nut locking plate ...			5
S.	35	Screw for same			1
B.S.	143	Gear operating rack or selector		6	0
B.S.	142A.	Gear actuating quadrant (gears in above)		6	0
B.S.	144A.	Gear quadrant bush (fits in end plate) ...		1	0
B.S.	131A.	Gear lever (fits on B.S. 142A.)		2	0
B.S.	146	Bolt securing above			3
C.S.	151	Washer for above			1
B.S.	148	Spring washer for above (fits behind lever)			3
B.S.	145	Gear quadrant cover plate			3
S.	35	Screws securing above (each)			1
B.S.	109	Bronze bush for main gear box shaft ...		2	0
B.S.	110	Adjuster screw for main gear box shaft ...			3
B.S.	111	Adjuster screw lock nut			1
B.S.	112	Oil retaining washer for main bearing ...			2
B.S.	117	Gear box fixing stud			5
T.E.	71	Extended nuts for above (each)			5
C.S.	6	Spring washer for stud			2
S.T.D.	9	Plain washer for stud			1
B.S.	132	Locating plunger for gear control rack ...			4
B.S.	134	Spring for above			4
B.S.	133	Stud for spring			1
T.S.	62	Main gear box axle thrust washer ...			8
R.E.	69	Aluminium pad for gear box attachment		5	0
L.F.	61	Bolts securing above to engine cradle plates			4
S.T.D.	4	Nut for above			2
S.T.D.	11	Washer for nut			1
R.E.	103	Adjuster screw for gear box			4



GEAR BOX PARTS.

Gear Box and Parts—contd.

			£	s.	d.
R.E.	78	Adjuster plate for gear box			8
R.E.	122	Special adjuster nut for gear box ...			9
B.S.	5	Packing shims or washers for B.S. 4 (each)			1
B.S.	6	Dust cap for B.S. 4			3
L.S.	19E.	Kickstarter stop spring (extending type)			7
C.S.	143	Bolt securing above			3
B.S.	152	Cover or cap for boss on end plate ...			1
C.S.	8A.	Oil filling plug			9
R.F.	28	Pressed steel cover for rear engine cradle plates		1	6
R/2	G.L.8	Gear lever gate with back plate		6	6
L.S.	195/R.2	Gear lever with knob		5	0
L.G.L.	3	Gear lever pivot stud or bolt			6
S.T.D.	3	Nut securing above to lever gate back plate			3
L.S.	121	Spring washer for pivot bolt			4
L.S.	120	Special shouldered nut for pivot bolt ...			5
V/2T.	27	Support bracket for gate (see also frame)		3	0
R/2	G.L.11	Gear rod only		1	0
C.S.	87	Gear rod yoke end			10
C.S.	89	Gear rod yoke end pin			2
C.S.	108	Gear rod yoke end pin split pin (per doz.)			6
C.S.	97	Washer for yoke end pin (each)			1

CLUTCH AND PARTS.

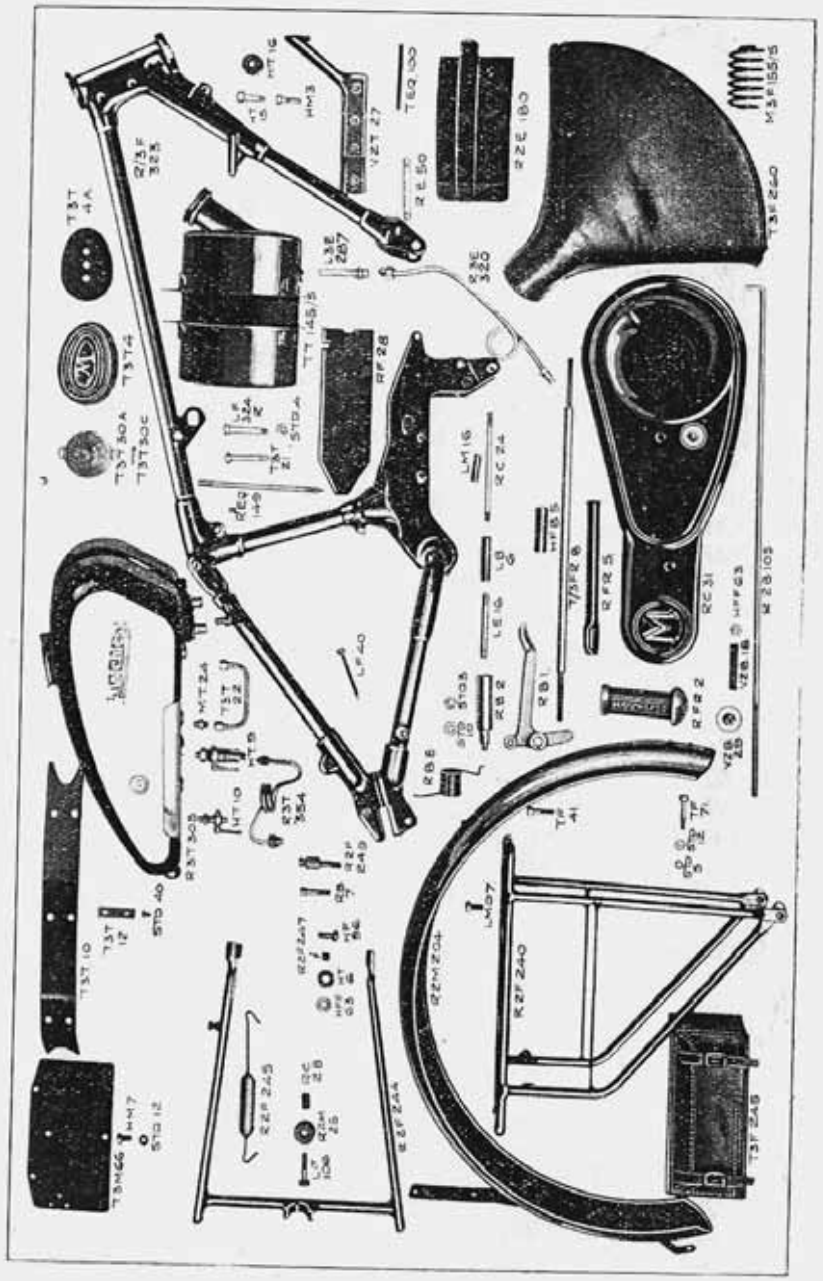
B.S.	66	Clutch sprocket with inserts	16	0	
B.S.	67	Clutch friction plate with inserts ...	4	0	
C.S.	166	Clutch plate plain (fits between friction plates)	2	3	
T.S.	50	Clutch plate plain (fits on clutch hub) ...	2	3	
C.S.	167A.	Clutch plate plain (outer plate with peg)	2	3	
B.S.	122	Clutch spring	1	0	
T.S.	77	Clutch spring cup	3	0	
B.S.	126	Clutch spring cup cap	1	0	
B.S.	129	Clutch sprocket ball cage and balls ...	1	6	
B.S.	120	Clutch centre hub	6	6	
T.S.	8	Clutch centre hub fixing nut			5
C.S.	15A.	Clutch centre hub fixing key			3
B.S.	127	Clutch spring adjusting nut			6
B.S.	128	Clutch spring adjusting nut dished washer			1
C.S.	118	Clutch spring adjusting nut packing washer for mainshaft			1
B.S.	151	Clutch thrust rod			9
S.L.	94	Clutch thrust pin			10
B.S.	149	Clutch operating lever fixed to end plate	3	6	
B.S.	150	Clutch operating lever fulcrum pin ...			3

Clutch and Parts—contd.

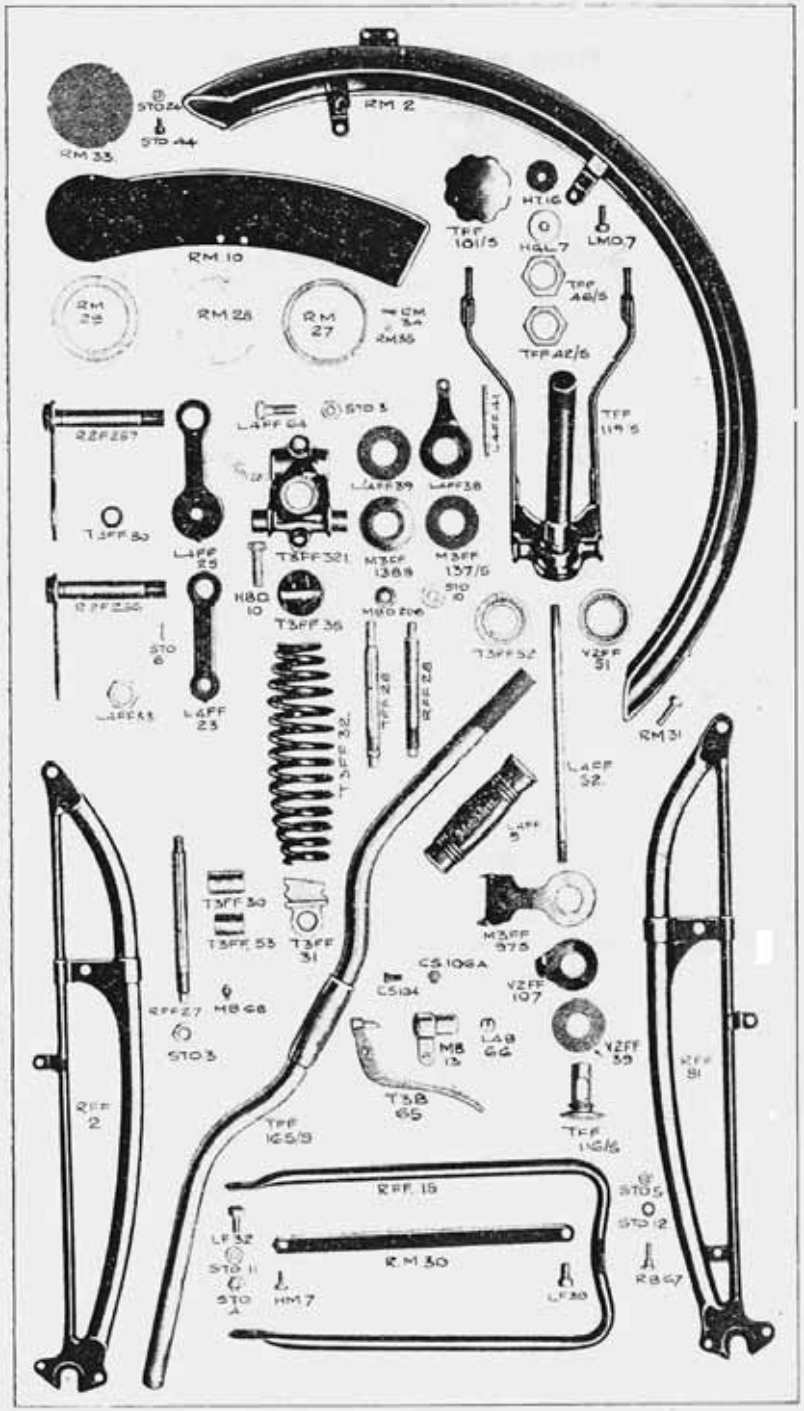
			£	s.	d.
C.S.	108	Split pin for operating lever fulcrum pin			1
B.S.	153	Adjuster screw for clutch lever B.S. 149			1
C.S.	106A.	Lock nut for above			1
T.S.	56	Cork inserts, large (per dozen)			5
T.S.	67	Cork inserts, small (per dozen)			5
R.E.	124	Clutch cable complete, inner and outer ...		5	6
R.E.	96	Clutch cable, inner only		1	6
R.E.	97	Clutch cable, outer only		3	6
R.E.	140	Clutch cable adjuster with lock nut ...			9
C.S.	94A.	Clutch cable nipples (pair)			1
C.S.	100	Clutch lever for handlebar (complete) ...		8	0
C.S.	100B.	Clutch lever portion only		4	0
C.S.	101	Lower half of handlebar clip		2	6
C.S.	102	Upper half of handlebar clip		1	0
X.	90	Screw and nut for handlebar clip ...			2
C.S.	104	Clutch lever fulcrum screw			1
C.S.	106A.	Nut for above			1
C.S.	109	Roller type adaptor forcible nipple, fits in in handlebar lever			4

FRAME AND FORK PARTS.

R/2F.	423	Complete frame only	4	2	6
V/2F.F.	51	Steering head frame race		2	5
V/2F.F.	52	Steering head crown race (nickelled) ...		3	2
T/3F.F.	59	Set of steering head balls (50 in number)			8
R/2E.Q.	149	Seat lug bolt			9
S.T.D.	4	Nuts for above (each)			2
L.F.	40	Rear chain adjuster screw			9
S.T.D.	5	Nut for above			2
R/3F.F.	358/D.	Front forks complete with stand and mudguard, but less all steering damper parts	4	15	0
R/3F.F.	359/D.	Front forks complete less stand, mudguard and all steering damper parts ...	3	12	6
T.F.F.	116/C.	Complete steering damper (extra to above)		8	0
R.F.F.	2	Front fork girder only, left side ...		14	0
R.F.F.	81	Front fork girder only, right side ...		14	6
R.F.F.	27	Front fork spindle, long (top or bottom)		1	1
T.F.F.	28	Front fork spindle, short (top)		1	5
R.F.F.	28	Front fork spindle, short (bottom) ...		1	5
M.B.	68	Fork spindle grease nipple			2
S.T.D.	1	Left side spindle lock nut			5
S.T.D.	3	Right side spindle nut			3
S.T.D.	10	Washer for spring nut			1
T/3F.F.	80	Fibre washer for fork spindle (each) ...			2



FRAME PARTS, ETC.



FRONT FORK PARTS, ETC.

Frame and Fork Parts—contd.

		£	s.	d.
R/2F.F.257	Left side fork link and tubular sleeve assembled (top)		4	6
R/2F.F.256	Left side fork link and tubular sleeve assembled (bottom)		4	6
L/4F.F. 25	Right side fork link (top)		1	3
L/4F.F. 23	Right side fork link (bottom)		1	3
T/3F.F. 30	Long tubular distance piece for bottom spindle sleeve			5
T/3F.F. 53	Short tubular distance piece for bottom spindle sleeve			4
L/4F.F. 33	Fork spindle sleeve lock nuts (each) ...			4
S.T.D. 6	Split pins securing above (doz.) ...			6
T/3F.F. 32	Front fork spring		3	0
T/3F.F. 31	Bottom fork spring anchor lugs (fits over sleeve)		1	6
T/3F.F. 35	Top spring anchor lug		1	3
M.B.D. 10	Bolt securing above to handlebar clip lug			6
T.F.F. 119/S.	Front fork crown and stem		16	0
T/3F.F.321	Fork head clip and handlebar lug ...		8	6
L/4F.F. 64	Pinch bolt for handlebar			6
S.T.D. 3	Nut for bolt for handlebar			3
T.F.F. 42/S.	Head adjusting nut			8
T.F.F. 46/S.	Head adjusting lock nut		1	0
L/4F.F. 39	Fork damper fibre friction washers (each)			2
L/4F.F. 38	Fork damper stationary side plate (each)			6
L/4F.F. 41	Bolt securing stationary side plate to handlebar lug			3
S.T.D. 24	Nuts for above bolt (each)			2
M/3F.F.137/S.	Fork damper rubber washers (each) ...			5
M/3F.F.138/S.	Fork damper metal washers (each) ...			4
T.F.F. 101/S.	Fork damper ebonite hand adjusting nut		1	6
M.B.D. 206	Spring washer, fits under above ...			2
S.T.D. 10	Plain washer, fits under spring washer ...			1
T.F.F. 116/S.	Steering damper body, fits inside fork stem		3	6
T.F.F. 115/S.	Steering damper long bolt (screws in above)			6
M/3F.F. 97/S.	Steering damper stationary plate			9
V/2F.F.107	Steering damper moving plate			4
V/2F.F.108	Screw securing moving plate to fork crown			3
V/2F.F. 39	Steering damper fibre friction washers (each)			1
T.F.F. 101/S.	Steering damper ebonite hand adjusting nut		1	6
H.T. 16	Steering damper adjusting nut rubber pad			5
H.G.L. 7	Steering damper adjusting nut rubber pad cap washers (each)			4

Frame and Fork Parts—contd.

		£	s.	d.
T.F. 315	Steering stop circular discs (each) ...			9
M/3F.F.120/S.	Bolt securing above and damper stationary plate			3
S.T.D. 2	Nuts for bolt (each)			4
T/3E. Q.50	Caple clip secured by above bolt ...			2
T.F. 28	Sheet metal cover for rear engine cradle plates		1	6
V/2T. 27	Front support plate for tank and gear quadrant		3	0
H.M. 3	Bolt securing above to head lug			4
S.T.D. 4	Nut for above bolt (each)			2

LUGGAGE CARRIER, TOOL BOX, ETC.

		£	s.	d.
R/2F. 240	Luggage carrier only		15	0
L.M.D. 7	Bolt securing to rear mudguard ...			4
S.T.D. 5	Nut for above			2
H.M. 3	Bottom fixing bolts (each)			4
S.T.D. 4	Nut for above			2
T/3F. 245	Toolbox, left or right (each)		3	9
H.M. 7	Toolbox fixing bolt (each)			3
S.T.D. 5	Nut for above			2
T/3M. 66	Rear number plate (acetylene) unlettered		1	1
T/3M. 70	Rear number plate (electric) unlettered		1	3
H.M. 7	Bolts securing above (each)			3
S.T.D. 5	Nut for above			2

MUDGUARDS AND MUDSHIELDS.

		£	s.	d.
R.M. 2	Front mudguard only		10	0
R.M. 30	Front mudguard stay (left or right) ...			6
L.M.D. 7	Fixing bolt for side of mudguard ...			4
H.M. 7	Fixing bolt for top end of stays			3
S.T.D. 5	Nuts for above			2
L.F. 39	Bottom fixing bolt for stays (each) ...			2
R.M. 31	Front stand clip bolt or stud			3
S.T.D. 5	Nuts for same (each)			2
S.T.D. 12	Washer only			1
R/2M. 204	Rear mudguard		13	0
T.F. 71	Fixing bolt for chain stay bridge ...			2
T.F. 41	Fixing bolt for top stay bridge			6
L.M.D. 7	Bolt fixing to luggage carrier			4
S.T.D. 5	Nuts for above bolts (each)			2
R/2M. 25	Rear stand clip rubber buffer			6
R.C. 28	Tubular sleeve for above			3
L.F. 106	Fixing bolt for rubber buffer			4
S.T.D. 4	Nut for above			2
R/3M.116,118/A.	Mudshields with all fittings (per set) ...		15	0

Mudguards and Mudshields—contd.

			£	s.	d.
R/3M.	116	Left side shield only		6	0
R/3M.	118	Right side shield only		6	0
L/4M.	123	Mudshield top rod (long)			10
L/4M.	126	Distance tubes for above (left or right) ...			5
S.T.D.	4	Mudshield rod end nuts (each)			2
S.T.D.	11	Washer for above (each)			1
J.F.	103	Mudshield special bottom fixing bolt ...			4
S.T.D.	4	Nut for bottom mudshield bolt ...			2
R.M.	10	Front number plate only		1	1
R.M.	9	Front number plate and license holder complete		3	0
S.T.D.	44	Fixing screws (each)			1
S.T.D.	24	Nut for above			1
R.M.	27	License holder rim			4
R.M.	34 & 35	Screws and nuts fixing above (each pair)			2
R.M.	28	License holder transparent panel ...			3
R.M.	29	Rubber ring for above			3
		Rear number plate (see carrier and tool box)			
R.E.	180	Magneto mudshield		3	6
R/2E.	280	Magdyno mudshield		4	3

TANKS AND FITTINGS.

			£	s.	d.
R/3T.	305A.	Petrol tank with filler caps	3	2	6
R/3T.	305	Petrol tank less filler caps	2	17	6
H.T.	9	Petrol tap and filter		4	2
H.T.	9A.	Petrol filter only			6
H.T.	10	Petrol drain tap		1	9
M.T.	24	Union for U pipe, screws into tank ...			3
T/3T.	23	U pipe complete		2	4
R/3T.	354	Petrol pipe complete		3	6
R.T.	27	Union nut for U pipe and tank end of petrol pipe			4
R.T.	29	Union nut for carburetter end of petrol pipe			4
R.T.	28A.	Nipple for carburetter end of petrol pipe			3
R.T.	28	Nipple for U pipe and tank end of petrol pipe			3
T/3T.	30A.	Petrol tank filler cap		3	6
T/3T.	30B.	Split hinge pin for above only			2
H.T.	15	Petrol tank fixing bolt, front end (each)			6
H.T.	16	Petrol tank fixing bolt rubber buffer ...			5
H.T.	17	Petrol tank fixing bolt metal washer ...			2
T/3T.	21	Petrol tank fixing bolt (rear end) ...			5
V/2T.	22	Tubular distance piece for above ...			3
R/2M.	25	Rubber washers for rear bolt (each) ...			5

Tanks and Fittings—contd.

			£	s.	d.
S.T.D.	4	Nut for rear tank fixing bolt			2
T/3T.	10	Petrol tank nickelled strip		2	6
T/3T.	12	Fixing plates for above (each)			4
S.T.D.	40	Fixing plate screws (each)			2
T/3T.	4L.	Knee grip (left side)		2	6
T/3T.	4R.	Knee grip (right side)		2	6
T/3T.	4A.	Knee grip fixing plate			6
H.M.	7	Knee grip fixing bolt			3
T.T.	145/A.	Oil tank complete with fittings		17	6
T.T.	145/S.	Oil tank less fittings		15	0
T/3T.	30A.	Oil tank filler cap		3	6
T/3T.	30B.	Split hinge pin only for cap			2
T.F.	25	Oil tank top fixing bolt			3
L.F.	96	Oil tank bottom fixing bolt			4
S.T.D.	4	Nuts for fixing bolts (each)			2
L/3E.	287	Oil tank screwed union and filter for oil pipe		2	3
R/3T.	354	Oil pipe complete		5	0
R.E.	53	Oil pipe union nut (tank end)			4
P/OP.	14	Oil pipe union nut (pump end)			4
R.E.	54	Oil pipe nipples (each)			3

STANDS.

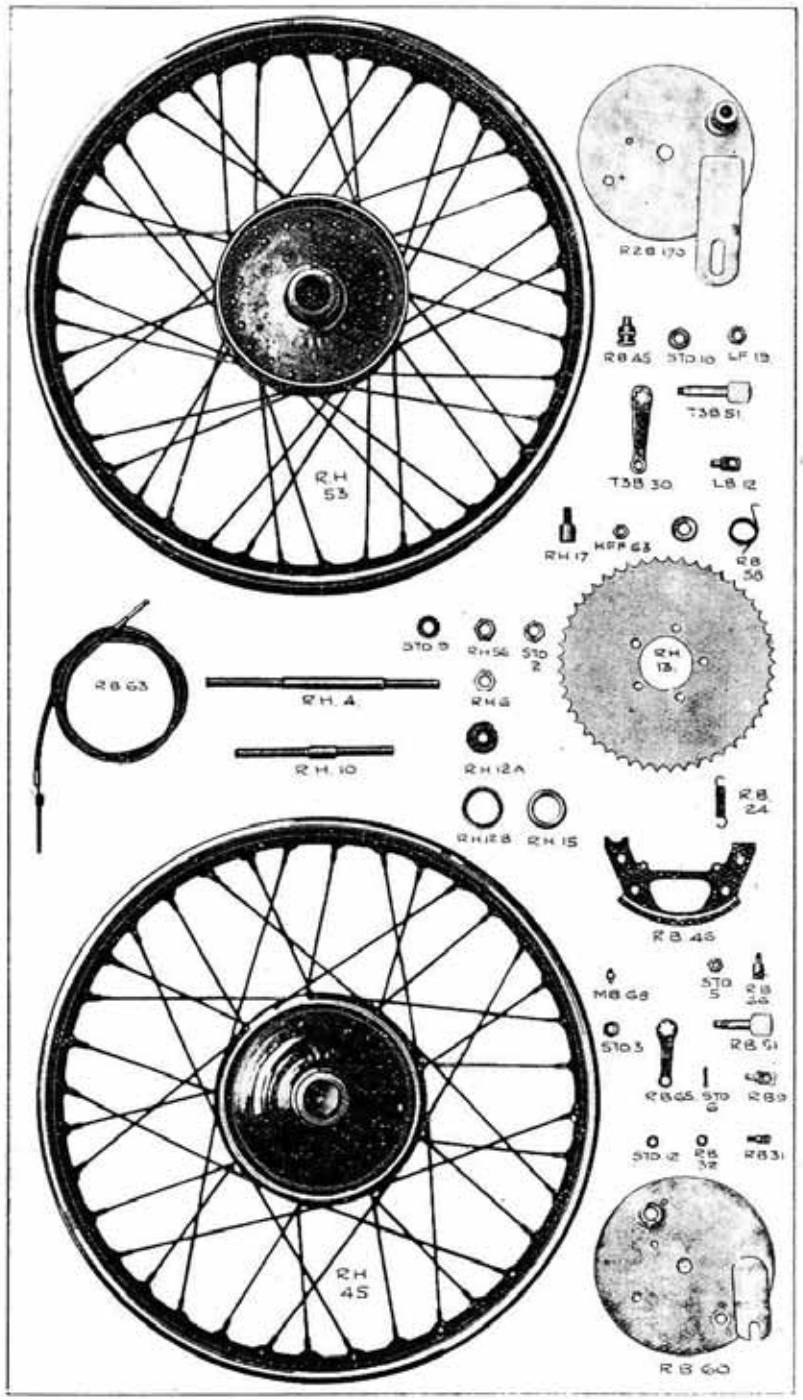
			£	s.	d.
R/2F.	244	Rear stand only		11	9
J.F.	150	Rear stand fixing bolts			3
H.T.	6	Rear stand bolt spring washer			2
R/2F.	250	Rear stand bolt plain washer			1
H.F.F.	63	Rear stand bolt nut			2
R/2F.	245	Rear stand pull up spring			6
R/2F.	249	Special anchor bolt for spring			3
S.T.D.	4	Nut for above			2
R.M.	25	Rubber buffer for rear stand (see mudguards)			6
R.F.F.	15	Front stand only		4	0
L.F.	32	Front stand fixing bolts (each)			2
H.F.F.	63	Front stand fixing bolt lock nut ...			2
S.T.D.	5	Front stand clip nut (see also mudguards)			2

REAR WHEEL AND BRAKE PARTS.

			£	s.	d.
R.H.	48	Rear wheel complete with tyre 25x2.75 Palmer Flexicord	4	15	3
R.H.	46	Rear wheel complete less tyre 25x2.75 ...	2	15	0
R.H.	53	Rear wheel less all hub and brake fittings	1	5	0
R.H.	13	Rear wheel chain sprocket		5	0

Rear Wheel and Brake Parts—contd.

			£	s.	d.
R.H.	17	Rear wheel chain sprocket fixing bolts (each)			2
S.T.D.	4	Nut for fixing bolt (each)			2
R/2B.	170/A.	Rear wheel brake cover plate, complete with shoes expander, etc. ...		15	0
R/2B.	170	Rear wheel brake cover plate only ...		4	3
R.B.	46 & 47	Brake shoes (per pair) with linings ...		5	6
R.B.	50	Brake shoe linings only, with rivets (per pair)		1	3
R.B.	24	Internal springs for shoes (each) ...			2
R.B.	51	Foot brake shoe expander		2	6
T/3B.	30	Rear brake expander lever			9
L.F.	19	Nut securing expander lever to expander			3
S.T.D.	10	Washer for nut			2
R/2B.	105	Rear brake rod		1	9
V/2B.	12	Rear brake rod cross head			6
S.T.D	11	Washer for cross head			1
S.T.D.	14	Split pin for cross head			1
V/2B.	29	Rear brake thumb adjusting nut ...		1	0
V/2B.	18	Rear brake rod spring			3
H.F.F.	63	Rear brake rod spring tensioning nuts (each)			2
S.T.D.	6	Rear brake rod split pin			1
R.B.	1	Rear brake pedal		3	6
R.B.	2	Rear brake pedal fulcrum stud		1	10
R.B.	8	Rear brake pedal pull off spring			4
L.E.	16	Long bolt securing fulcrum stud to engine cradle plates			6
S.T.D.	3	End nuts for above and for fulcrum stud (each)			3
S.T.D.	10	Washer for fulcrum stud			1
R.B.	7	Anchoring bolt for rear brake cover plate			3
S.T.D.	4	Nut for above			2
S.T.D.	14	Split pin for above			1
R.H.	4	Rear wheel axle (Vibrac steel)		2	9
R.H.	12	Rear wheel taper roller bearing complete		6	6
R.H.	37	Taper cone with rollers and cage only ...		4	0
R.H.	38	Outer hardened steel race only		2	6
R.H.	6	Inside lock nut for brake side cone Outside lock nut for chain side cone Lock nut for brake cover plate ...	each		2
S.T.D.	2	Axle end nuts			5
S.T.D.	9	Axle end nut washer			2
R.H.	15	Metal dust cap for hub end			3
M.B.	68	Hub grease nipple			2
R.H.	5	Distance collar (fits outside cover plate)			2
L/4F.	253	Rear wheel spoke, left side (each) ...			1



WHEELS AND PARTS.

Rear Wheel and Brake Parts—contd.

			£	s.	d.
L/4F.	261	Rear wheel spoke, right side (each) ...			1
R.H.	33	Spoke nipples (each)			2
R.H.	62	Rear hub complete	1	12	6
R.H.	18	Rear hub only		8	6
R.H.	61	Rear wheel rim (drilled and enamelled)		8	0
R.H.	64	Rear wheel tyre, 25x2.75 Palmer Flexicord	2	0	3
R.H.	49	Cover only, 25x2.75 Palmer Flexicord ...	1	13	6
R.H.	50	Inner tube only, 25x2.75 Palmer Flexicord		6	9

FRONT WHEEL AND BRAKE PARTS.

R.H.	47	Front wheel complete with tyre ...	4	16	3
R.H.	35	Front wheel complete, less tyre	2	15	0
R.H.	45	Front wheel, less all hub and brake fittings	1	5	0
R.B.	60/A.	Front brake cover plate, assembled, with shoes, expander, etc.		15	0
R.B.	60	Front brake cover plate only		4	3
R.B.	46 & 47	Front brake shoes (per pair) with linings		5	6
R.B.	50	Front brake shoe linings only, with rivets		1	3
R.B.	24	Internal springs for brake shoes (each)			2
R.B.	51	Front brake shoe expander		2	6
T/3B.	65	Front brake expander lever			9
L.F.	19	Nut for fixing above			3
S.T.D.	10	Washer for nut			2
T/3B.	58	Front brake pull off spring			4
R/2B.	163	Front brake cable (assembled)		4	6
R.B.	63A.	Front brake cable, inner only		1	3
R.B.	63B.	Front brake cable, outer only		2	9
T/3B.	66	Front brake cable stop (fixed to cover plate)			7
S.T.D.	5	Nut fixing above			2
R.B.	10	Rod extension for inner cable			6
L/4B.	66	Nipple for handlebar end of inner cable			3
V/2B.	11	Front brake expander crosshead ...			6
S.T.D.	14	Split pins securing crosshead (dozen) ...			6
S.T.D.	12	Washer, fits behind split pin			1
V/2B.	9	Front brake thumb adjusting nut ...		1	0
V/2B.	28	Front brake rod spring			2
S.T.D.	79	Front brake rod spring tensioning nuts ...			1
M.B.	68	Front hub grease nipple			2
R.H.	10	Front wheel axle (Vibrac steel) ...		2	6
R.H.	12	Front wheel taper bearing complete ...		6	6
R.H.	12/A.	Taper cone with rollers and cage only ...		4	0
R.H.	12/B.	Hardened outer race only		2	6
R.H.	6	Thin lock nut for left side cone			2
R.H.	6	Lock nut for right side cone (inside hub)			2
R.H.	56	Lock nut for brake cover plate			2

Front Wheel and Brake Parts—contd.

			£	s.	d.
S.T.D.	2	Axle end nuts (each)			5
S.T.D.	9	Axle end washer (each)			1
R.H.	15	Metal dust cap for hub end			3
R.H.	64	Front hub complete with brake, etc. ...	1	16	0
R.H.	59	Front hub shell only		9	6
R.H.	60	Front wheel rim, drilled and enamelled ...		8	0
R.H.	54	Front wheel spoke, left side			1
R.H.	52	Front wheel spoke, right side			1
R.H.	34	Spoke nipples (each)			2
R.H.	49 & 50	Front wheel tyre and tube, 25x2.75 Palmer Flexicord	2	0	3
R.H.	50	Inner tube only		6	9
R.H.	49	Cover only	1	13	6
R.B.	45	Front brake shoe fulcrum stud		1	10
L.F.	19	Nut securing above to cover plate ...			3
S.T.D	10	Washer for nut			1
R.B.	67	Anchoring stud for cover plate ...			5
S.T.D.	5	Nut securing above to fork girder ...			2
S.T.D.	12	Washer for nut			1

CHAINGUARDS AND CHAINS.

R.C.	10	Rear chain guard		6	6
R/2F.	249	Bolt for fixing same (rear end)			3
S.T.D.	4	Nut for above			2
L.F.	61	Bolt securing front end (see also gear box)			4
S.T.D.	4	Nuts for above (each)			2
R.C.	36	Back portion front chain guard		6	6
R.C.	29	Stud for chain guard (screws into crankcase)			7
L.M.	16	Distance tube, fits on above			5
S.T.D.	4	Nut fixing above			2
R.C.	24	Long bolt fixing rear end of chain guard back (passes through crankcase) ...			4
R.C.	28	Distance tube (fits over above), short ...			3
L.M.	16	Distance tube (fits over above), long ...			4
S.T.D.	4	Nuts for long fixing bolt (each) ...			2
R.C.	31	Outer portion of front chain guard ...		15	0
S.T.D.	4	Fixing nuts for above (each)			2
S.T.D.	11	Washer for nut (each)			1
R.F.	28	Guard or cover for rear engine cradle plates		1	6
R/3C.	315	Front driving chain		7	10
R.C.	16	Rear driving chain, ½in.x205x116 pitches		15	6
R.C.	20	Connecting link complete			5

Chainguards and Chains—contd.

			£	s.	d.
R.E.	169	Spring clip only, for connecting link ...			1
R.C.	21	Cranked link or ½in. link			6
R.E.	184	Magneto driving chain ½in.x3/16ths.x39 pitches		2	6
T.E.	81A.	Connecting link complete			2
T.E.	81B.	Spring clip only, for above			1
R.E.	170	Chain rivet extractor		5	0

FOOTRESTS AND PARTS.

R.F.R.	5	Footrest tube only (left side)		1	0
R.F.R.	5	Footrest tube only (right side)		1	0
T/3F.R.	8	Footrest rod		1	3
S.T.D.	4	Footrest rod end nuts (each)			2
R.F.R.	2	Footrest rubber pads (each)		1	6
R.F.R.	1	Footrest rod, ½in. diam., for above ...			8
R.F.R.	16	Pillion footrests (per pair) complete ...		10	0
R.F.R.	13	Pillion footrest side plate		1	0
V/2F.R.	10	Pillion footrest pad spindle		1	0
S.T.D.	1	End nut for spindle			5
R.F.R.	2	Pillion footrest rubber pad		1	2

HANDLEBAR.

T.F.F.	165/S.	Handlebar, bare (Sports type)		13	6
T/3F.F.	65	Handlebar, bare (Touring type)		13	6
L/4F.F.	9	Handlebar grips (per pair)		2	0
L/4F.F.	64	Handlebar clip pinch bolt			6
S.T.D.	3	Nut for above			3
L.F.	119	Inverted handlebar lever, complete ...		7	6
L.F.	120	Lever portion only		3	9
L.F.	121	Fulcrum screw for lever			4
L.F.	122	Nut for fulcrum screw			2
S.T.D.	20	Screw securing lever body to handlebar ...			2

SADDLE AND PARTS.

T/3F.	260	Saddle top only (special Lycett Aero) ...	1	0	10
M/3F.	155/S.	Saddle springs (each)			6
S.T.D.	3	Nut securing spring to saddle and frame			3
S.T.D.	10	Washer for nut			2
L.F.	324/R.	Shouldered bolt for saddle nose			8
S.T.D.	4	Nut for above			2

MAGNETO AND PARTS.

			£	s.	d.
L.M.D.	12	Complete magneto only	3	15	0
L.M.D.	41B.	Contact breaker only, complete	1	2	6
L.M.D.	4152/4122	Contact screws (per pair) with rocker arm		14	0
L.M.D.	7/P.	High tension pick-up, complete		3	6
L.M.D.	1052	Carbon brush only for pick-up, with spring		1	0
		Chain sprocket for magneto			
L.M.D.	175	Chain sprocket fixing bolt			2
L.M.D.	175/A.	Washer for above			1
		Chain sprocket for engine shaft (see also engine)			
R.E.	171	Magneto fixing bolts (special)			9
R.E.	127	Cupped washer for magneto fixing bolt ...			4
S.T.D.	12	Standard washer for above			1
S.T.D.	5	Nuts for above (each)			2
R.E.	163	Magneto base locking plate			4
		Magneto platform			
R.E.	52	Bolt securing above			6
R.E.	91	Distance tube for platform fixing bolt ...			3
S.T.D.	4	End nuts for platform fixing bolt (each)			2
L.M.D.	27	Magneto advance and retard lever for handlebar		6	9
L.M.D.	27/A.	Lever portion only of above		3	0
		Magneto advance and retard cable (outer)			9
		Magneto advance and retard cable (inner)		2	0
R.E.	180	Magneto shield		3	6
T/3M.D.	1	Base bolts for fitting magdyno			4
T.E.	177	Chain sprocket for magdyno		2	6
L.M.D.	175	Nut securing chain sprocket			2
L.M.D.	175/A.	Washer for nut			1
R/2E.	276	Magdyno platform		2	0
R/2E.	280	Magdyno shield		4	3

MECHANICAL OIL PUMP.

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

Mechanical Oil Pump—contd.

			£	s.	d.
P/OP.	10	Oil pump glass cover or cap		1	0
P/OP.	11	Oil pump glass window			2
P/OP.	17	Oil pump screwed cap			6
P/OP.	29	Locking screw for cap and bush			1
P/OP.	23	Fibre washer for screwed cap			1
P/OP.	19	Screw securing cam cap			1
P/OP.	20	Washer for cam cap			1
P/OP.	22	Oil pump spring			3
P/OP.	24	Ratchet pin for regulator			1
P/OP.	25	Ratchet spring for regulator			1
P/OP.	26	Screw for window cap (each)			1
P/OP.	27	Oil pump fixing screw			1
P/OP.	28	Locking washer for screw			1

CARBURETTER.

			£	s.	d.
A.C.	30	Carburetter complete	2	0	0
A.C.	66	Carburetter float chamber only		8	6
A.C.	249	Perforated sleeve nut securing float chamber		1	9
A.C.	248	Fibre washer for float chamber ...			2
A.C.	61-64	Float chamber cap with tickler		4	3
A.C.	35	Float only		2	6
A.C.	65	Float needle			11
A.C.	240	Carburetter mixing chamber		8	6
A.C.	251	Lock nut securing above to cylinder ...		1	6
A.C.	243	Sprayer base (fits in mixing chamber) ...		5	0
A.C.	251	Cap nut securing sprayer base		1	6
A.C.	250	Fibre washer (fits inside above)			2
A.C.	246	Jet carrier (screws in sprayer base) ...		1	9
A.C.	15	Jet only			5
A.C.	245	Pilot air adjusting screw (scews inside of body)			6
A.C.	244	Lock spring for air screw			2
A.C.	234	Throttle valve only		3	10
A.C.	241	Taper needle (attached to above) ...		1	3
A.C.	242	Locking cotter for needle valve			4
A.C.	233	Throttle valve spring			3
A.C.	238	Air valve		1	0
A.C.	237	Air valve spring			3
A.C.	231	Mixing chamber cap		1	9
A.C.	232	Screwed lock nut (knurled edge) for above		1	9
A.C.	236	Screwed adaptor for air cable adjuster ...			7
A.C.	230	Cable adjusters (air or throttle) ...			4
A.C.	144	Control cable complete (air or throttle) ...		6	6
A.C.	164	Control levers complete		6	0
A.C.	115	Throttle lever only		2	6

Carburetter—contd.

			£	s.	d.
A.C.	113	Air lever only		2	6
A.C.	108	Centre bolt for control levers			3
A.C.	109	Cap washer for control levers			5
A.C.	111	Friction adjustment nut for control levers			6
A.C.	112	Spring washer (fits under above) ...			2
A.C.	110	Lock washer for friction nut			3
A.C.	95	Clip screw for handlebar clamp			3
A.C.	247	Venturi air intake		2	6

EQUIPMENT.

			£	s.	d.
R.E.Q.	2	Special type acetylene head lamp and generator, with all fittings for attachment (P. and H.)	1	6	0
R.E.Q.	4	Head lamp only (P. and H.)	1	0	0
R.E.Q.	6	Generator only (P. and H.)		11	0
R.E.Q.	8	Generator bracket (P. and H.)		2	6
R.E.Q.	10	Tail lamp (P. and H.) No. 135		3	0
R.E.Q.	11	Y piece connector for above			9
R.E.Q.	12	Generator tubing for head lamp (per yard)			8
R.E.Q.	13	Generator tubing for tail lamp (per yard)			8
R.E.Q.	15	Head lamp burner only (P. and H.) ...		2	5
R.E.Q.	17	Tail lamp burner only (P. and H.) ...			5
R.E.Q.	18	Electric head lamp (for electrically equipped machines only)	2	11	0
R.E.Q.	19	Electric head lamp bulb (double filament)		3	6
R.E.Q.	20	Accumulator only	1	5	0
R.E.Q.	21	Accumulator carrier		5	0
R.E.Q.	22	Cable (5mm.), per foot			2
R.E.Q.	23	Electric tail lamp		8	6
R.E.Q.	24	Electric tail lamp bulb		1	6
R.E.Q.	25	Bonniksen speedometer with all fittings (Trip 10/- extra)	4	0	0
R.E.Q.	26	Bonniksen speedometer gear box only ...		16	0
R.E.Q.	27	Bonniksen speedometer drive wheel and axle		2	6
R.E.Q.	28	Bonniksen speedometer flexible drive complete		6	3
R.E.Q.	29	Bonniksen speedometer flexible drive inner cable		2	2
R.E.Q.	30	Bonniksen speedometer flexible drive outer cable		4	1
R.E.Q.	31	Bonniksen speedometer driving wheel complete		4	0
R.E.Q.	32	Bonniksen speedometer driving wheel screw and clamp pr.			2½

TOOLS.

		£	s.	d.
R/2T.K. 7	Tool rolls complete with all tools (pair)		17	6
T/3T.K. 17	Tool roll only (each)		4	0
T/3F. 245	Tool box only (each [see also luggage carrier])		3	9
R.T.K. 1	Thin spanner for wheel cones			6
L/3T.K. 21	Tyre pump		3	9
R.T.K. 3	Flat open-end spanner, 3 sizes		1	0
R.T.K. 5	Magneto spanner			4
L/3T.K. 9	Tappet adjusting spanner			9
L/3T.K. 10	Double open-end forged spanner for ¼x5-16ths nuts		1	3
L/3T.K. 11	Double open-end forged spanner for ⅜x½in. nuts		1	6
L.T.K. 13	Screwdriver			9
L.T.K. 14	Tyre lever			3
L.T.K. 15	6in. pliers		1	6
L.T.K. 20	Tecalemit grease gun		6	0