

## **Section 9**

# **Miscellaneous**

*Velocette*

## MISCELLANEOUS

### LAYING UP

When laying up a machine for a long period the most important thing is a little bit of forethought. Three problems seem to arise - battery, clutch and freezing.

Batteries work best when they are subject to the normal charge and discharge cycles of everyday use. Provided they are not allowed to become discharged for long periods, no great harm should come from standing idle. One useful way of reducing the rate of discharge is to disconnect the positive or earth lead. This way the battery will be safe for at least a month. For longer periods of rest a recharge from a battery charger will be essential.

The trouble with clutches is it depends on what friction plates your machine has. There are two types in service - one with fibre friction plates (a brown coloured material), the other with friction material glued to metal plates. However, it is worth noting that the latter type of "bonded" plates have been obsolete for many years and are much less common. As countless members have discovered, the latter type rust solid within a week or so. Even though the clutch lever seems normal, the clutch will not disengage and the engine stalls when one attempts to put it in gear. A strong elastic band to tie the clutch lever to the handlebar must be an essential piece of equipment each time the machine is left idle for a few days. If you suffer this particular misfortune, see the section on clutch repairs.

The third problem is freezing. Many is the machine which has been ridden in the summer and then, following a winter lay up, a spring revival finds it to have large cracks across the cylinder heads. Fortunately these can be repaired, but it will cost. Try and remember to drain off the water or use antifreeze. A good antifreeze will also help prevent rusting if left in all the year round.

It is also a good idea to try and kick/pull the engine over a few times, say once a week. This will circulate sufficient oil to help prevent rusting of the cylinder bores and valves.

In addition to the three main problems detailed above, the use of an anti corrosion fluid such as Waxoyl which certainly helps the fight against rust. Though it is not the only such product on the market; being a wax based fluid, it can get right into all the nooks and crannies, such as the inside of the LE's footboards, toolbox lid weld seams etc. Once applied, it dries to a thin film, and it does not peel off inside the mudguards. It can also be wiped all over the plated parts, including the exhaust system if the machine is not going to be run, and it is fairly easy to remove when the better weather arrives.

Over very long periods of time, the tyres may develop a set if left supporting the weight of the machine. It would therefore seem a sensible idea to raise the wheels clear of the ground by the use of suitable wooden blocks. Traditionally, sacks were also wrapped around the tyres to stop them being affected by sunlight.

## M.O.T

In view of the necessity of obtaining that, 'bit of paper', the subject of the MOT test is well worth a discussion. The first thing that seems to be forgotten is giving the machine a clean before presenting it. This first step has three great merits; firstly Japanese dealerships are doing their level best to upgrade mechanics from 'grease monkeys' to 'technicians', who are not quite so keen to get themselves filthy. Secondly, arising from this, they will probably deduce that a filthy machine is an uncared for one, and so is a 'failure' before they start looking. Thirdly, whilst cleaning it you may spot a few loose/broken/decayed bits, so saving your neck and loosing your test fee. The main thing is get all the accumulated oil and dirt off the lower regions. Begin by lightly scraping the thick stuff off, then use paraffin, Gunk or Jizer to do the rest.

Now for the Pre-M.O.T./Safety Check:

### 1) Rear Wheel Area.

Place a block of wood under each leg of the stand to get the rear wheel clear of the floor. Examine the tyre for depth of tread, cuts and cracking of the sidewalls. There must be no less than 1mm of tread everywhere, but better to make that 2mm, and any cuts or cracking should be superficial, with no sign of the canvas carcass. Otherwise a new tyre will be needed.

Examine the spokes for slack, bent or even broken ones. Slackness may be checked by squeezing the spokes; the 'give' in each must be negligible, i.e. 1mm max. see illustration 1, otherwise give each spoke a light tap - the slack ones will just go 'clonk' rather than a nice ring. If any tightening has to be done, do not use pliers, but get a proper nipple key, which most bicycle shops still sell. You will also need to check that the end of the spoke does not protrude through on the inside of the rim. Turn the nipple a quarter of a turn at a time, so as to pull the spoke about as tight as the other ones: no tighter or it will pull the rim out of true. A damaged rim will probably need professional attention. Do not forget to file the end of the spoke down if necessary, before replacing the tube.

Next, adjust the rear brake. Though it does not mention this in the Service Manual, the thing to guard against is the brake pedal touching the footboard when applied hard as the brake pedal does tend to flex. Ideally, screw out the brake adjuster until the point when you can hear the brake shoes rubbing the brake drum as you rotate the wheel. Slacken off half a turn and check the brake pedal does not touch the footboard. If it does, you will have to screw the adjuster out a little more though this is not a very good practice, and probably indicates the brake shoes need attention. Any case, if the adjuster is screwed right out the tester might not accept it. In this case, new brake shoes and/or packing under the brake shoe slippers is necessary. Normally, the packing should be equal under each shoe, but an M.O.T. dodge if the brakes are not too good is to put an extra 0.015 inch under the 'leading shoe', see the section on "Improving Poor Braking".

Examine the rear brake cable carefully for fraying of the inner cable

at its exposed ends. A single loose strand means a new cable. Check that the outer cable is also in good condition and not being chafed away. Testers have been known to fail machines where ordinary wire has been used instead of split pins in the cable linkages.

Finally, whilst the rear wheel is off the ground, check for wear in the bearings. Standing to the rear of the machine, hold the wheel with one hand and try moving it from side to side using just a light pressure. Wear may be detected from any movement of the wheel relative to the frame. Wear can easily be felt. It is naturally difficult to define what is excessive, but probably over 1 mm total, measured at the tyre is unacceptable. This wear will be the total of that in the rear forks pivot bushes and the wheel bearings. If it is wear in the latter, movement between the wheel and the rear forks will be seen as this test is performed. Alternatively, stand facing the wheel and with the hand on either side, try rocking the wheel on its bearings, (See Illustration 2 for the front wheel). In case of wear, the remedy is self evident, though do check it is not a simple case of a loose spindle or pivot bolts. If it is then much additional work will be avoided.

## 2) Front Wheel

Having outlined the procedure with the rear wheel, similar checks apply to the front - tyre, wheel, cable and brake, for which purpose a further block of wood may be placed under the sump to bring the front wheel clear of the ground. When checking adjustment of the front brake, make sure that the brake lever can be pulled no more than half way towards the handlebars.

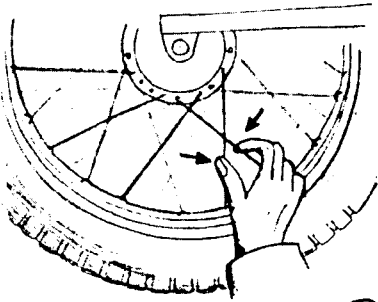
The next check is for wear in the head and wheel bearings and the fork bushes. In the case of the wheel bearings, the test again is as above, see Illustration 2. To check the steering head bearings, take the machine off its blocks and stand astride it. Place a finger across the fixed and moving parts of the top bearing and with the front brake applied try to push and pull the machine forwards and backwards. Your finger will instantly detect any backlash (see Illustration 3). If adjustment is necessary, this must be done with the front wheel off the ground, so that the steering is free. Only tighten the top cone a few degrees at a time until the steering is felt to tighten up. Back the locknut off a fraction and then re-tighten the locknut assembly. If the steering starts to get 'notchy' before all the play is adjusted out, this indicates replacement of the bottom race is necessary. Fortunately the top race rarely gives trouble.

A good test for wear and looseness in the forks is to stand facing the machine. Hold the front wheel between your knees and try turning the handlebars to see how much "twist" there is between the handlebars and wheel - see Illustration 4. It should not be possible to turn the handlebars through more than 5 or 10 degrees either way, otherwise trouble is indicated.

## 3) Electrics

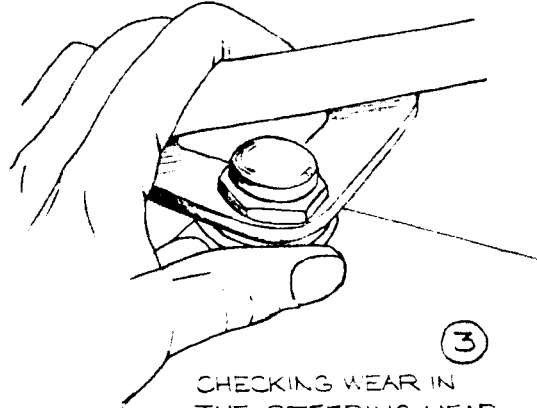
Lighting must now be checked to see that everything is functioning.

Other than blown bulbs, the most likely cause of trouble is the dipper switch. If the changeover from dip to main beam is not instantaneous, then throw it away, as once it starts to malfunction, it can be relied on to play up during the test. The regulations do say that the headlamp beam must not dazzle. The scientific way to set the beam is to point the bike at a convenient wall with a mark on it the same height as the centre of the headlamp. With the bike 20 to 30 feet from the wall, adjust the headlamp so the main beam centres on this mark. Naturally the bike should be off its stand with its normal compliment of passengers aboard.



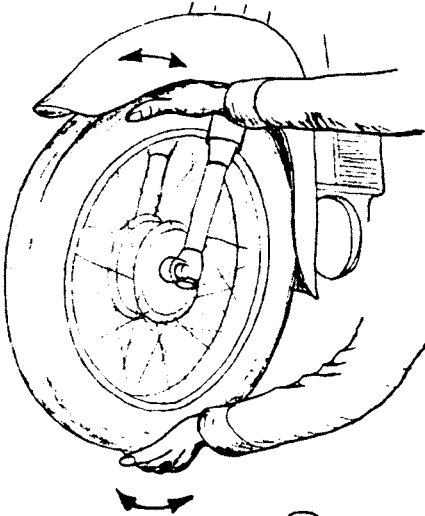
CHECKING THE SPOKES

①



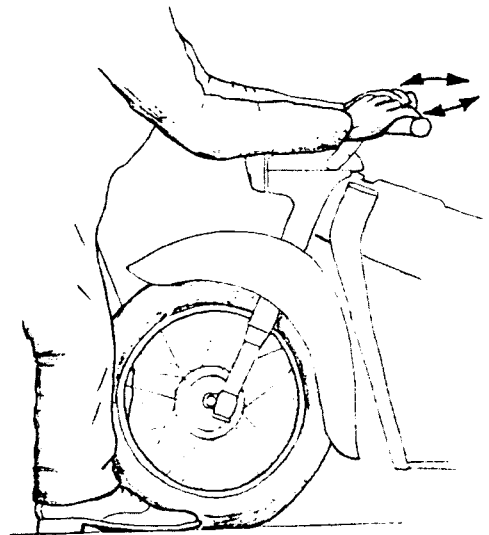
CHECKING WEAR IN THE STEERING HEAD

③



CHECKING WEAR IN THE WHEEL BEARINGS

②



CHECKING THE FRONT FORKS

④

Note that if indicators have been fitted they must work and as previously described, a stop lamp must be fitted to all early machines.

#### 4) Bodywork

The bodywork was probably checked whilst the machine was being cleaned - everything secure, no dangerous wiring, tyres not rubbing on the mudguards, no serious cracks in the frame etc.

If the worst happens and you feel the examiner has been unfair to you, go to another test station - one which has dealt in British motorcycles. The test manual does state that the tester must use his discretion with old vehicles!

#### SERVICE TOOLS

The following is a list of tools which are available, for use by Club members, through the Club's Tool Loan Scheme. For those who like to make their own tools the following drawings are also available. See the Club magazine for details.

<u>Tool No.</u>	<u>Description</u>
LET518	Tappet Adjusting Tool
LET646	Generator Extractor - B.T.H.
LET647	Flywheel Extractor - B.T.H.
LET647/1	Crankshaft Protector
LET780	Lockring Tube Spanner
LET781	Bevel Pinion Lockring Spanner
LET786	Oil Seal Assembly Tool
LET787	Bevel Drive Oil Seal Assembly Tool
LET788	Bevel Pinion Vice Tool
LET789	Bevel Pinion Spanner
LET790	Bevel Drive Clamping Tool
LET791	Clutch Alignment Tool
LET793	Flywheel Oil Seal Centralizing Tool - pre 1957
LET796	Front Fork Bush Split Collar
LET801	Timing Unit Extractor Bolt B.T.H.
LET802	Timing Pinion Extractor
LET810	Bevel Pinion Shimming Fixture
LET915	Timing Pinion Assembly Tool
LET924	Flywheel Housing Assembly Tool - Ball Bearing Engines
LET937	Flywheel Housing Extractor - Ball Bearing Engines
LET948	Timing Unit Extractor Bolt - Miller
LET949	Flywheel Extractor - Miller
LET952	Setting Plate
LET953	Setting Block - Miller
LET963	Oil Seal Tool - Bevel Pinion
LET1013	Muff Coupling Extractor
LET1125	Clutch Lever Setting Tool - 3 speed gearboxes
LET1138	Setting Block - Valiant
LET1207	Lockring Spanner - Lucas
LET1215	Setting Block - Lucas
LET1218	Flywheel Oil Seal Assembly Tool - Lucas
LET1219	A.T.D. Extractor - Lucas
LET1226	Flywheel Extractor - Lucas

## SUPPORT TOOLS

Just how well prepared are you for trouble? The following list of tools and spares are the sensible minimum to take on a journey of any length.

### SPARES

Top and Bottom Hoses  
2 x Head Gaskets  
2 x Spark Plugs  
Headlamp and Tail Lamp Bulbs  
Fuel Pipe  
Clutch and Throttle Cables  
Front and Rear Brake Cables  
Tyre Valve  
Selection of spare nuts & bolts

### TOOLS

2 x 1/2" B.S.F. Spanners  
3/8" and 5/16" B.S.F. Spanners  
1/4" B.S.F. and 2 BA Spanners  
2 x Tyre Levers  
Large and Small Screwdrivers  
Universal pliers  
Tyre Pump  
Torch  
Puncture Outfit

This may look a lot, but it is amazing where it can be packed away, especially in the L.E.'s panniers. The headlamp shell is a particularly useful place for the storage of spare cables and bulbs, out of the way of thieving hands. If the spanners are in a tool roll, put these inside your helmet when leaving your machine. Some owners prefer to carry a spare inner tube rather than a puncture repair outfit, or even an aerosol can of Finilec. Some owners also carry spare points, condenser, H.T. coil, etc., which cannot be a bad idea if you have the room.