

ROYAL ENFIELD BRAKE MODIFICATION

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The problem is, quite simply, that the brake back-plates are not supported with sufficient stiffness. Any flex in the operating system results in lost braking effect and even when you've replaced all the levers and cables with big strong units such as the Tommaselli lever assembly, it's still possible to see the back-plates flexing when you squeeze the lever. (It's best to try this at a standstill, by the way!)

At first sight it may seem strange that these back-plates flex as there is a big nut retaining them, with a centralising taper against the

plate. The plate itself is a pretty butch piece of equipment in the Enfield tradition of solid metal. However the problem is revealed when the unit is dismantled, and demonstrates the strange inability of British motorcycle engineering to use the modern lip seal.

Behind the back-plate is the wheel bearing, and separating the two is a felt grease seal running on a spacer. This spacer, nothing more than a sleeve, is all that supports the inside of the brake back-plate. When the brakes are applied, the back-plate can readily flex away from the outer tapered

nut and thereby reduce braking effectiveness.

Technology has progressed to the point where we can solve this problem by leapfrogging the age of the lip seal. Wheel bearings can be quite adequately sealed in the bearing, and indeed many of the applications for separate seals have now been superseded by the sealed bearing, usually suffixed 2RS, standing for Two Rubber Seals. Where there is a grease-filled housing between two such bearings the inner seals may be removed to permit lubrication in the original way. Sealed bearings cost almost twice as much as the unsealed type but last more than twice as long in applications where there is any possibility of dirty water contamination such as front wheel bearings.

In this particular application, the felt seal can be discarded, leaving a large gap all round the tiny and inadequate spacer. It will not be beyond the wit of anyone capable of dismantling this assembly in the first place to appreciate that a much larger spacer, the same thickness, but similar in

diameter to the external tapered nut, will dramatically improve back-plate stiffness. Such a spacer can, of course, be made from any suitably-shaped steel ring which will fit over the axle and clear the rotating part of the hub.

In order to simplify the task of locating this pair of spacers I suggest that the swinging arm thrust washers fitted to the 250cc Royal Enfields are a good place to start. Using the Myford Super 7 lathe, that everyone except me appears to have in their back room, enlarge the hole to fit, and then turn down (or surface grind) the washer to the same thickness as the original spacer. These are precisely the sort of jobs that the supplier of Enfield spares could be expected to do prior to issuing you with a pair of modified spacers.

Only one question remains: does it work? Experience, including on the race-track, provides the answer: yup! There now, that was easy wasn't it?

Sovereign Remedies



Do you have a tip to pass on? Classic Mechanics will pay five sovereigns (well, five pounds actually) for each one published.

BEZEL REMOVAL

The following is an easy way of removing the bezel from a chronometric speedo. Wind three turns of masking tape round the bezel and then hold the speedo upside down with just the brass bezel and the masking tape submerged in boiling water for half a minute. With a gloved hand, grip the masking tape and unscrew the bezel. It works every time and without causing any damage to the speedo.

Stanley Phelps, Ilford, Essex.

SHINING MOMENTS

Rust spots and pitting on chrome parts such as wheel rims, brake and gear levers can be successfully concealed using the following process. After gently smoothing down the surface with wire wool or rubbing compound, liberally apply alloy paint to cover both the chrome and the rust spots. Wipe the whole surface over with a clean rag.

The paint will lift off the chrome but will adhere to the rust spots and pit marks. All you have to do now is put on your sunglasses, stand back and admire the nice, even, shiny finish to the whole surface.

DJ Harding, Copmanthorpe, Yorks.

HEAT GUN

Instead of using blowlamps, boiling water, or ovens to loosen or fit gudgeon pins, bearings etc., try using one of the electric heat guns designed for paint stripping. I've found them very effective indeed and a lot safer and cleaner than a naked flame in a workshop or water causing rust. The gun has also proved useful drying electrics, drying paint, shrinking heat-shrink tubing, and even warming hands on cold days. You could even use it to strip paint!

Brett Jeffery, Bangor, Gwynedd.

LEAKY ROCKERS

Here is a tip that I've tried and find works well. I was sick of the leaking rocker shafts on my '69 Bonnie, so for a quick fix I put a glob of silicon on the end and attached an Amal carb' banjo (sealing the central hole with a disc of tin cut from a drinks can and siliconed in place) and ran pipe to the original oiler hole in the chaincase. A year later it's still on, oiling the chain and not the outside of the motor or my left leg!

Mick Robson, Wooler, Northumberland.

TRIUMPH SPARKS

A really good remedy for distributor Triumph twins is to do away with the rotor arm and HT leads and wire in a Honda twin coil. These have two leads from one coil - both leads spark simultaneously, but only one will explode (the other working on the exhaust stroke). Make sure the correct voltage coil is used - CD175s were 6volt; CB175 - 200 - 250 were 12volt. You should be able to pick one up cheap from a breaker.

I have used this conversion on several machines and it has proved very reliable, which is more than you can say about the distributor set-up.

L. Whitehead, Huddersfield.

DRY AS DUST

Having completed a particularly oily task in the workshop, I looked for a clean rag to wipe my hands. As none could be found, and I needed to move quickly onto a 'clean hands' job, I dipped my hands in a bucket of dry sawdust which happened to be in the corner. By simply rubbing this in, they became dry and clean very quickly. I have used this method several times since, and have found it to be extremely effective.

DL Thomas, Swansea, W. Glams.

PRE-UNIT CHAINS

Here's a tip for bikes with separate gearboxes. When tensioning the primary chain, slightly overtighten and then slacken off until tension is correct. Doing it this way the drawbolt is pushing against the gearbox and stops it slipping in the engine plates under the pull of the secondary chain, which exerts the greater force.

Ed Holdgate, Burnley, Lancs.