Re-COMMISSION Verb (transitive) to Commission Something (again)

In other words – to take something that was working once and get it working again (hopefully better).

The act of re-commissioning a motorcycle or indeed any ICE (as the trendy's like to call them now) vehicle, is an expansive task - ranging from performing basic service and safety checks, adding fresh fuel and riding/driving off; to conducting a full-blown strip-down - and all points in between.

The amount of work necessary for a re-commission is usually directly proportional to the amount of work that was put in prior to the machine being taken out of commission and the amount of time that has passed. I have undertaken several re-commissioning jobs over the years and it never fails to amaze me how, for the sake of just performing the most basic maintenance tasks (cleaning for example) can subsequently lead to such a disproportionate amount of restorative work in such a relatively short period of inactivity. Of course another critical factor in said decline is the environment and the conditions under which the vehicle has been languishing.

So where does one start? Well, by asking a few questions actually - particularly in regard to what I've just said above. Was the machine cleaned and serviced before it was put to bed? Was it protected as best it could be for the environment in which it would be stored and the anticipated period of inactivity? Was it running and in good order prior to storage? Was the fuel system drained (a real biggy!) How long has it actually been sat? Of course, if the machine that we're looking at is yours, then it is likely (though not always guaranteed) that you'll know the answers to the above. But a lot of re-commissions are performed on bikes that have been purchased without history or have been just set to one side by the owner for many years and forgotten about. From a personal perspective, regardless of whether I know the answers to these questions, it's best not to assume anything. Approach every machine in the same way and you can't go wrong. Just deal with each issue as you find them (or make a list).

If you know your machine intimately, as I know mine; the post winter re-commission is a well-rehearsed plot and I essentially perform the same checks that an MoT tester would perform, working from front to back, concentrating on the frame and ancillary items first, and the engine last. Due to the preparation exercised prior to throwing the cover over it; I can be confident that once freshly fuelled she'll fire, first touch of the button. For something that falls into the 'full re-commission' category however; the plan of attack is the same, I'm just prepared to encounter more problems that will require attention before I would consider the machine road-worthy. Note: I'm not concerned with cosmetics here, though things like paintwork, chrome and alloy can suffer terribly from a lack of the correct preparation prior to storage. I'm purely concerned with making the machine functional and most of all, safe. Now, if I were to describe every aspect involved in a full recommission, then I would be taking up more space in this edition of the Flier, than I deserve, So what I'm going to do is just concentrate on a few key points of consideration and then provide a checklist for general guidance at the end. So, here we go.

Fuel Tank - One of the first items that I check when any machine is brought to me with running issues, let alone one requiring a re-commission. In my opinion, the fuel tank is one of the most over looked items on classic machines i.e machines that are seldom used. Understandable to a degree because we've all become conditioned to just chucking fuel into our everyday vehicles, without ever giving the fuel tank as single thought. But seldom are our everyday vehicles almost 50 years old! A proper look inside the tank with a torch will tell you all you need to know and if you're being really conscientious, you'll remove the fuel tap and take a gander at the top of your tank. Unless some form of restorative work has been done previously, I can virtually guarantee you that you'll find it corroded, and by corroded I mean anything from light surface rust, to proper crusty stuff. Let's face it; any amount of corrosion in your fuel tank is going to lead to problems. And don't think that the filters built into the system will deal with it - they won't. Equally, don't think that fitting an extra filter into the feed line will help, because it won't in fact, it'll probably make things worse! It always makes me laugh when I see this done. It's like openly admitting that you're aware that you've got a problem, but are too lazy to deal with it properly. So fuel tank corrosion needs to be sorted by whatever means is necessary.

Tyres - I consider tyres as being probably the 2nd most important component on a machine and yet in my experience, I am utterly astounded by the number of owners who seemingly give them no more than a cursory thought. And I'm not just talking about whether they still have above the legal limit of tread depth. Let's face it; the average classic bike owner seldom covers more than a couple of thousand miles a year on their machine, even less so if said owner should be lucky enough to own several machines. So on a sizeable classic such as the Kettle, you could conservatively see up to around 4000 miles usage out of a quality back tyre. Trouble is that a good many owners would probably take 3 or maybe even more years to cover that mileage. Then what if you miss a seasons riding? Saves on tyre wear right? Well yes - but that's not the issue. The real big question where tyres are concerned is - "how old are they?" You could have the most perfect 'show pony' sitting in your heated garage, with absolutely no miles at all on its tyres - which is fine if you don't intend to use it and yet.....The fact is that the consensus among tyre manufacturers and safety groups is that tyres should be replaced every 5-6 years. This is reiterated by the European Tyre and Rim Technical Organisation (ETRTO), who state that tyres may be considered new for 5 years from the date of manufacture. All motorcycle and scooter tyres manufactured after the year 2000 will have a date stamp to show when they were produced. This date stamp is shown as four numbers, for example 4420 - indicating that the tyre was manufactured in the 44th week of 2020 (between the 26th of October to 1st of November to be exact). To make it easy to identify this production date stamp, it is usually surrounded by a raised line, meaning the four figures are within an oval.

So what's the 1st most important component then? INNER TUBES, that's what! Inner tubes also wear out over time. Like all rubber components, they harden and the rate of hardening depends very much on how they're used and the conditions in which they're kept. Friction between the tube and tyre wall thins the rubber, making it more likely to burst. Ideally, In reality, new tubes should be fitted when a tyre is replaced (due to wear) but..... I hope that you're sitting down for this next bit.....

According to Dunlop (inventors of the pneumatic tyre), inner tubes should be changed every 6 months! Yep, you read that right. In terms of practicality and reading between the lines however, I'd say that they are basing that proposition upon usage, i.e average mileage and most of us don't even get close to what the DoT considers average annual mileage. But even so, I'd say that every 12 months might be wise. It's a very small outlay when you consider that your life might depend on it! Food for thought though, eh?

Battery - The batteries we commonly fit to our Kettles tend to fall into 2 camps - traditional 'wet' celled lead acid or, 'low maintenance' (often referred to as 'gel' type) which have different life expectations, the low maintenance type being the better performer. The various Battery maintenance chargers that are available today are excellent tools for extending a battery's life, but they're not the be all and end all.

All batteries degrade over time. The main causes of degradation in lead-acid batteries are corrosion, active material loss (where the active lead on the plates depletes) and sulphation. While all of these processes occur naturally as part of the chemistry within lead-acid batteries, they're often amplified by extremes of temperature and the manner in which they've been used and kept as well as other service-related issues - including things like deep cycling, overcharging, over-discharging and poor storage practices. According to the experts, the following life expectancies apply to batteries maintained in optimum conditions: Lead acid - up to 3 years. Low maintenance type - **3 to 6 years**.

Your average battery should have a static voltage of around 12.4V, but this is by no means a reliable gauge of a battery's health. Only performance under load can reveal how good a battery is. A simple way of testing this is to operate the starter motor whilst monitoring the battery's output. A good battery should show an initial drop of about 3 volts on application of the start button and the voltage should then show an increase during cranking and then a rapid recovery once the button is released. If it drops any more than 3V and doesn't quickly recover, then it could well be on its way out.

Re-COMMISSIONING CHECKLIST

The following list of items is not definitive, but if adopted, then it is highly likely that you'll not miss any items requiring attention along the way:

CHASSIS
Remove the fuel tank, panels and seat. Check fuel tank for corrosion and treat. Wet line the tank (if req). Dissemble the fuel tap and clean.

FRONT END
Check trueness of the front wheel and check spoke tension. Check wheel bearings.
Remove front wheel, Fit new tyre and/or inner tube as required.
Drain and clean brake master cylinder. Remove brake callipers, brake lines. Strip brake callipers. Clean. Replace pistons and seals as required. OEM (style) brake lines - inspect for cracking/hardening. If over 5 year's old, replace.
Remove forks. Replace seals(?) Change oil and reinstall.
Check steering head bearings
Reassemble front end.

IN BETWEEN
Battery - check/replace as req.
Inspect wiring loom(s), clean connectors. Replace in-line main fuse with blade type (recommended)
Check operation of all controls, switchgear, lights.

REAR END
Check rear wheel as per front.
Check drive chain for wear/corrosion and tension - check front and rear sprocket wear.
Check brake shoe wear, operation and adjustment
Check rear suspension serviceability and mounting
Check swinging arm bushes for play, lubricate bushes.

ENGINE
Drain the coolant and gearbox oil
Remove and strip carburettors - clean as req. Replace service components as req. Reassemble and set as req.
Remove SRIS valves and drain crank chambers. Test SRIS valves, repair/replace as req. Re-fit.
Remove, drain and clean 2-stroke oil tank. Remove the oil pump and oil feed matrix. Clean and inspect. Test oil feed line check valves, replace as req. Refit matrix and oil pump, using new sealing washers and O rings.
Refit 2-stroke oil tank - replenish and bleed system.
Remove and discard spark plugs, lubricate cylinders and perform compression test.
Check condition and setting of ignition system.
Lubricate throttle cables and clutch cables - check clutch adjustment
Refill coolant system with Rad Flush and replenish gearbox oil.
Fit new spark plugs
Remove exhaust baffles - check for wadding and remove as necessary. Clean.
Start engine - dynamically check ignition timing (as req) - synchronise carburettors balance and mixtures.
Check charging system.
Drain cooling system and re-fill with coolant.
Perform Test ride and adjustments as req.

So as you can see, there's the potential for a great deal of work and not an insignificant degree of expenditure, before a machine can be considered safe to ride.

Happy fettling!

Skid B