The teardown

WORDS/PHOTOS: Rod Gibson

Our 1974 Kawasaki Z1A project bike was in worse condition than we thought when we got it back to the workshop last month. Now Rod begins to dismantle it, and finds further horrors are still to come.

01: Right, time to get the spanners out and get involved. I'm starting with the points cover – as it's held on with masking tape it won't take much to remove it. As I suspected, one of the cover screws has been snapped off in the points housing. The broken end might be tricky to remove, but I'll deal with that once the engine is stripped. The good news is that the points cover itself is intact – the early Z1 cover is not easily available and later supersessions had a different graphic, which would spoil the bike's original looks. The inner points housing has a ding at one edge, but it should be repairable.

02: These big chrome plates have been bolted to the bike over the front engine mountings, and it takes a bit of head scratching to realise they are probably aftermarket mountings for a set of cruiser pegs. Might look strange to our eyes in the UK, but pseudo chopper parts were very fashionable in the US at one time. If that's all the 'customising' that has been carried out by a previous owner the bike has escaped fairly unscathed. In the bin with them.

03: While I'm working on the rest of the bike I'll remove the oil drain plugs, so any old lubricant in there can drain safely away. Encouragingly, the sump drain bolt unscrews fairly easily – these can be tight on older Z1s and I've even heard of someone cracking a sump while trying to unscrew one. The drain bolt is magnetic and has a fair bit of metallic sludge stuck to it. Possibly evidence of missed oil changes, which somehow doesn't surprise me. Hopefully the engine internals aren't too bad.

04: Up at the top end, I'm pausing to take loads of pictures of the cable and wiring runs before removing anything. On a bike of this age, and with an unknown history, there's no guarantee that everything is correctly routed to begin with, but a photographic reference is still useful to have. On this bike the main harness runs along the top left frame tube towards the headstock, and the handlebar switch wires are at the right. Note the ignition coils bolted to the frame tubes – these have bonded HT leads that have hardened with age and are now quite brittle. Two new coils required for the rebuild.

05: Further up and the mystery of the enormously long brake hose. Although the bike has low bars now it must, at some point, have had enormous ape-hanger bars fitted; someone has changed the bars but simply looped up the excess hose. There is no sign of any brake fluid in the master cylinder and no indication that the brake will work, so this master cylinder may or may not be usable. The anodising has faded to a dull silver, so it will need refinishing and servicing at the very least. Note the bashed headlamp rim and loose tacho bottom cover.

06: The caliper and fork legs look original but this is the wrong wheel. The Z1, Z1A and Z1B were fitted with the front end from the H2, and should have a black wheelhub with six mounting bolts for the disc. This hub is silver and carries a four-bolt disc, which probably marks it out as either a Z900A4 or Z650B item. The front axle with sleeve nuts is also incorrect for the Z1A. Although it all seems to fit together quite well, I'm wondering if the bike has been accident damaged and fitted with a different wheel to repair it?

07: Right, let's start unbolting stuff. The remnants of the hideous 4:1 exhaust system unbolts fairly easily and goes in the skip outside. I'm saving the exhaust mounting collars and flanges, as they're the correct, original parts and will clean up. One of the finned collars seems to be tight against the frame as it comes away – I'll have good look at that when I've made more room to work. The front of the engine is coated in oily sludge, but it's no real cause for concern and it might have just helped prevent corrosion over the years.

08: Now I can get at it I'll remove the oil filter. The central bolt comes free easily – again these are frequently tight on older bikes and can put up quite a struggle. At least the bike has an oil filter fitted and it's the correct type. This large diameter metal shrouded filter was only used on the early Z1 and Z1000 series and the Z750 twins. Later bikes have a smaller, paper filter identical to the sohc Honda 750, and I've seen the later filter bodged into early housings before. There's a good amount of thick, black sludge in there, but at least it's oil and not rusty water.

09: While the remnants of the old oil dribble out I've moved round to the right-hand side of the bike to begin to dismantle the electrics. This plate bolted to the right side of the battery carrier carries the solenoid and rectifier, and a small sub-harness that has the coloured block connectors for the harness connections. It all looks in surprisingly good shape, though I'm beginning to notice that all the rubber mountings on this bike are perished, probably from years of exposure to the hot Utah sunshine. Sorting out the wiring routing can be a pain later, so again I'm taking loads of photos of these parts as they are unbolted and stored away.

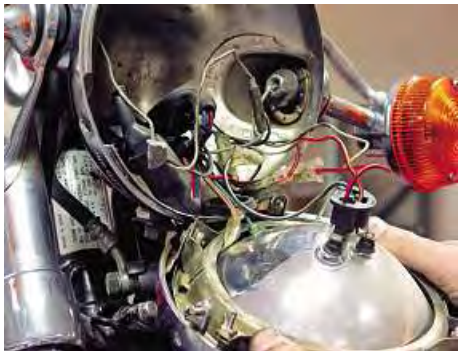
10: Now the battery carrier and tool tray can come off. Judging by the surface rust and dry, whitish gunge on the battery tray it's a fair bet that the battery has been overcharging on this bike. It's a common fault on Z1s, but it won't have been helped by the high temperatures in which this example has lived most of its life. Blotchy patches on the chrome on the rear wheel rim and brake torque arm are consistent with battery acid spills too. The battery itself is, of course, bone dry and thoroughly goosed, but we expected that.

11: The regulator is a separate item on the Z1, and is bolted underneath the battery tray. It might still even work, but I reckon it will be prudent to convert the bike to a more modern, and more reliable, charging system when I rebuild it. Unlike the Z750B or Z650B1 the Z1 has a three-wire alternator, so it's quite easy to fit a modern combined regulator/rectifier unit. With the dried up remnants of the rubber mountings removed, labelled and stored the battery tray and toolbox goes in the pile for powder coating.

12: As I'm stripping the bike I'm sorting all the bits for renovation, further dismantling or storage. It makes sense to remove the points backplate and store it with the other electrical components for now, so I'll have a Big Box of Electrical Stuff to sort through later. Personally, I like to start up restored bikes on the original points ignition where possible – it makes any troubleshooting easier without introducing unknown elements into the equation. For that reason I'll be fitting new points and condensers for the initial start-up, and once the bike is running I'll be looking at converting to electronic ignition of some kind.

13: Time to unplug the harness and unbolt the coils, and store them all away in the Big Box of Electrical Stuff for sorting out later on. A quick examination shows the harness to be in pretty sound nick – there's no obvious signs of bits of bodged wiring repairs that we see so often. Even the block connectors look pretty good, but it will all be cleaned up and checked over before I assume any of it is fit to reuse.

14: One of the quirky bits on the Z1 is this device bolted to the left-hand ignition coil. Its function in life is to control a warning lamp on the tacho face that notifies you if your stop-lamp bulb is not working. There are signs that the block connector on this example has been overheating. To be frank, I don't ever remember coming across a bike that had this function working, and when they packed up on customers' bikes we simply used to remove them. If it works it will be a novelty – if doesn't I might even go the extra mile and fit a new one for the sake of originality, if I can be bothered.



15: Broken winker earth mounts in the headlamp shell are further evidence of accident damage. The wiring itself looks fairly sound, except for the unused sidelight connections, which have been clamped between the headlamp unit and its inner rim. Helps keep it tidy I suppose, but I'd rather not risk it chafing through to metal and blowing the main fuse each time the lights are switched on. The headlamp unit is in fine condition but dips the wrong way for UK roads, so a new one goes on the growing shopping list.

16: The winkers fit through a collection of rubber grommets and each is secured with a single nut inside the shell. This bike seems to have rather too many grommets fitted, so I'll be cross referencing from the parts list to find out what I should have when it all goes back together. I thought the headlamp brackets were bent, but a little gentle tapping with the rubber hammer lines up the headlamp to the top yoke quite easily, so it seems the brackets were just twisted on the fork legs. There is a minor ding in the right-hand one, but they will re-chrome perfectly well.

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Chroming: Quality Chrome 01482 589838
Bright zinc plating: Simms 01422 360232
Genuine Kawasaki spares: Z Power 01942 262864
Stainless steel parts: Phil Denton Engineering 01492 641345
Fork stanchion refinishing: AM Philpott 01582 571234
Cables and brake hoses: Venhill Engineering 01306 851111
Shock absorbers: Hagon 0208 502 6222
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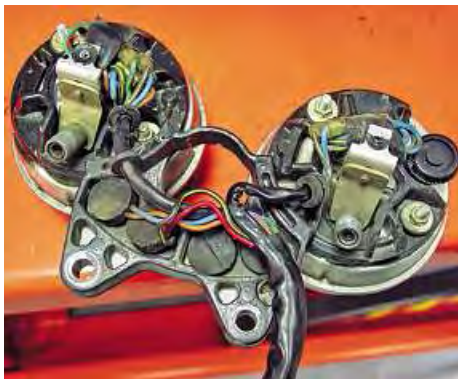
Charging circuit components: Electrex 01491 682369
Electronic ignition: Z1 Enterprises www.z1enterprises.com
Oils and fluids: Millers Oils www.millersoils.co.uk
Tyres: Continental
Encouragement, advice and rare parts: Z1 Owners' Club, Steve Ebbrell, Paul Walker.
Essential reference: 'Original Kawasaki Z1, Z900 & KZ900' by Dave Marsden, ISBN 0-7603-0775-X



17: The clock assembly comes away from the top yoke after removing two bolts. Again, all the rubber mountings are perished so everything's wobblier than it should be, but that's all easily fixable. The tacho head, though, is quite obviously damaged so I'll be going shopping for a second-hand item to replace it. This lot will dismantle further, but again I'm taking lots of pictures of the wiring to help me put it back together correctly when I rebuild the bike later.

18: At the back end of the bike the trademark Kawasaki tailpiece lifts away after I've removed its four rubber mountings. Beneath it we have the rear fender front and rear fender rear. The two central bolts that attach these to the frame are almost always rusted in solidly on UK bikes – these unbolt without any drama. Ah, the joy of working on a Utah import! Note the winkers mounted to the frame – from the Z900A4 onwards they were mounted to the grabrail. Deep joy – the rear section mudguard is solid and will re-chrome easily. Replacements are easy to get these days, but the UK spec long mudguard is still a rare and valuable find.

19: No putting it off any longer – something was wrong with those exhaust clamps hitting the frame downtubes. The clamps have fins relieved on one face to clear the inside of the frame on numbers two and three, but here the number two clamp is hard up against the frame. Number three, by contrast, has a good half an inch of clearance. I've already noticed buckling on the front engine plate, and the main front engine bolt is bent. There's only one conclusion – the frame is bent. It all adds up – the scuff marks on the frame and engine, the wrong front wheel fitted and mountings for highway pegs that are strangely missing.

20: Now I notice this cracking at the headstock gussets. Close examination of the front downtubes shows indentations above each front engine mount. I reckon the bike has been fitted with crashbars, then heavily binned. The crashbars have bent the frame, and it's all been cobbled together with a different wheel and handlebars and moved on. Time to stop and think about this – now would be a good time to abandon the project, sell the bits for a profit and forget all about it. But I'm made of dafter stuff, and am beginning to feel like I'm on a mission. It all makes me more determined to not only repair this bike, but to rebuild it to show standard. Onwards and upwards.

21: The caliper is correct for the Z1 at least, and it looks to be in fairly good nick, apart from a little light scuffing. I have no idea if it actually works, but for now I'll unbolt it and store it for a full strip down later. The marks on the fork leg could be accident damaged, or could simply have been caused by the bike rattling around in a transatlantic container. The sticker on the fork leg is an authentic touch of the bike's US heritage.

22: Next job – engine out. With rags on the bench to prevent any more scuffing, the bike now goes over sideways. I'm taking the engine out as one lump, and will treat it as a project in itself. With all the weight on the engine I can now remove the wheels and suspension, leaving me with the fairly easy task of lifting the main frame loop off the engine on the bench. At this stage it's also easy to get at the main engine mounting bolts and loosen them all off.

23: The front wheel unbolts easily, and I can then turn to removing the fork legs. Slackening off the pinch bolts on the yokes should make them loose enough to twist out, but these are still tight. The easiest solution is to remove the pinch bolts entirely and shove a screwdriver into the gap in the yoke. A little gently leverage will then open up the bottom yoke far enough to release the fork leg, which can then be twisted and wiggled free. The bottom yoke is steel and quite sturdy, but be careful if you have to do this at the top yoke – the alloy can fracture if you're too rough with it. The headlamp brackets and fork shrouds have a selection of rubber O-rings and cups, all of which are carefully collected and stored for later use.

24: Now, at last, the top yoke can be removed. The head bearings were a little notchy but I intend to fit taper rollers as part of the rebuild. While I want to (hopefully one day) experience the undiluted Z1A riding experience I fully intend to take advantage of modern bearing technology at both the steering head and swingarm pivot. It's hard to imagine a time when cup and cone bearings from a bicycle were considered adequate for the most powerful production motorcycle in the showrooms.

25: With all the peripherals removed I can now remove the engine bolts and lift the frame off the engine. It's a bit of a wiggle to clear it, but at this stage I'm not worried about scratching any paintwork. The engine will stay on the bench for stripping down, and I now have a big pile of dirty, greasy parts to clean up and check over before sending them out for re-finishing. And then, I'll have to come up with a plan for the bent frame.

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