

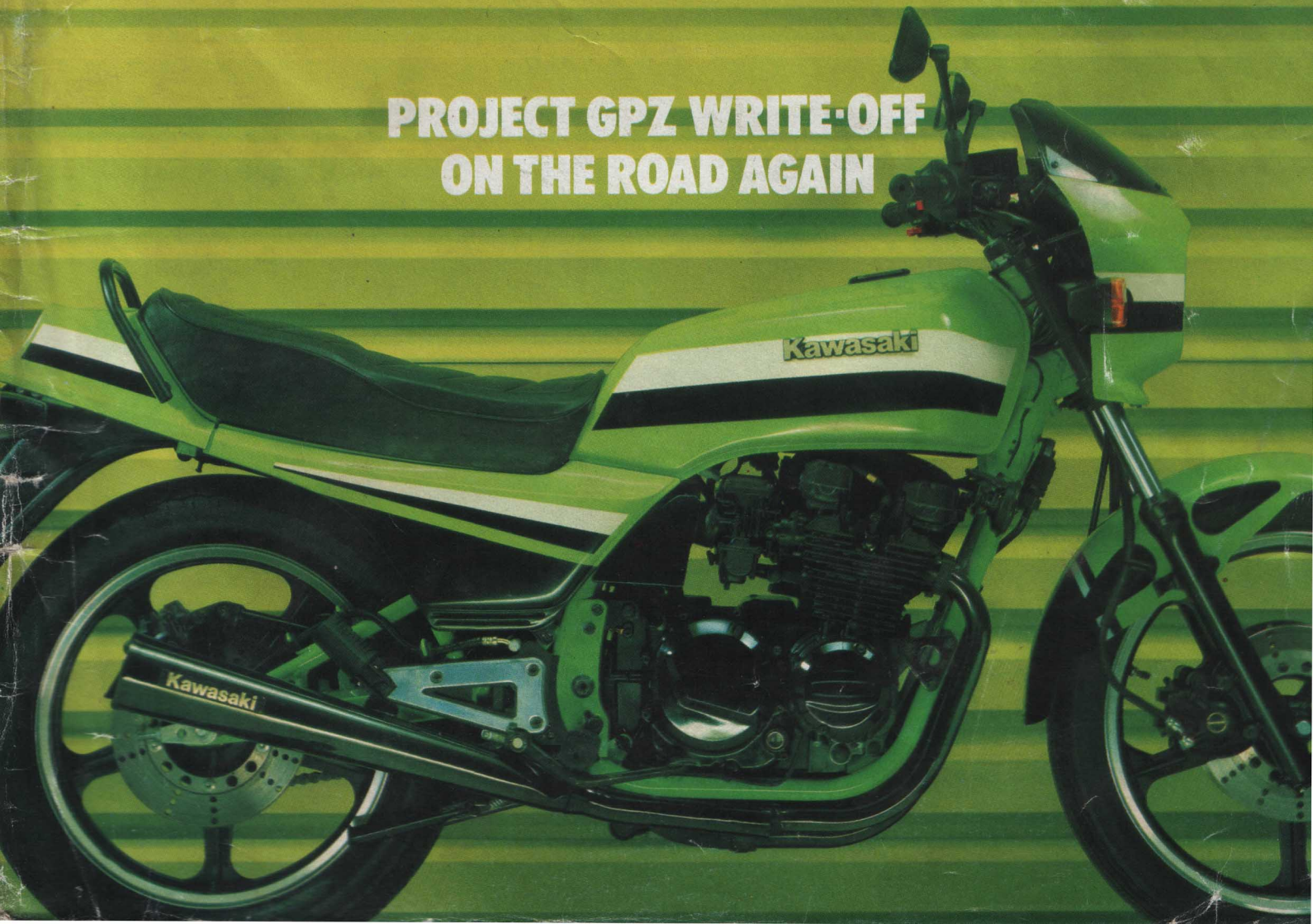
MECHANICS

& THE BIKER

July 1983 75p USA \$2.75

CHROME PLATING Preparation & finish
DIRTY TEST MTX 125 v DT 125 LC
FAST TEST Suzuki GSX 750 EC
PASTA TEST Ducati 900 S2

**PROJECT GPZ WRITE-OFF
ON THE ROAD AGAIN**



JAWS

4

NEVITABLY, all good things come to an end. So the rebuild of the *Mechanics* GPz550 project write-off is now complete.

Enjoyable but not without considerable worries, hassles, 'phone calls and a certain amount of searching for missing bits and pieces which should have been put more carefully in order (or in plastic bags — Ed.) when the bike was pulled apart four months ago.

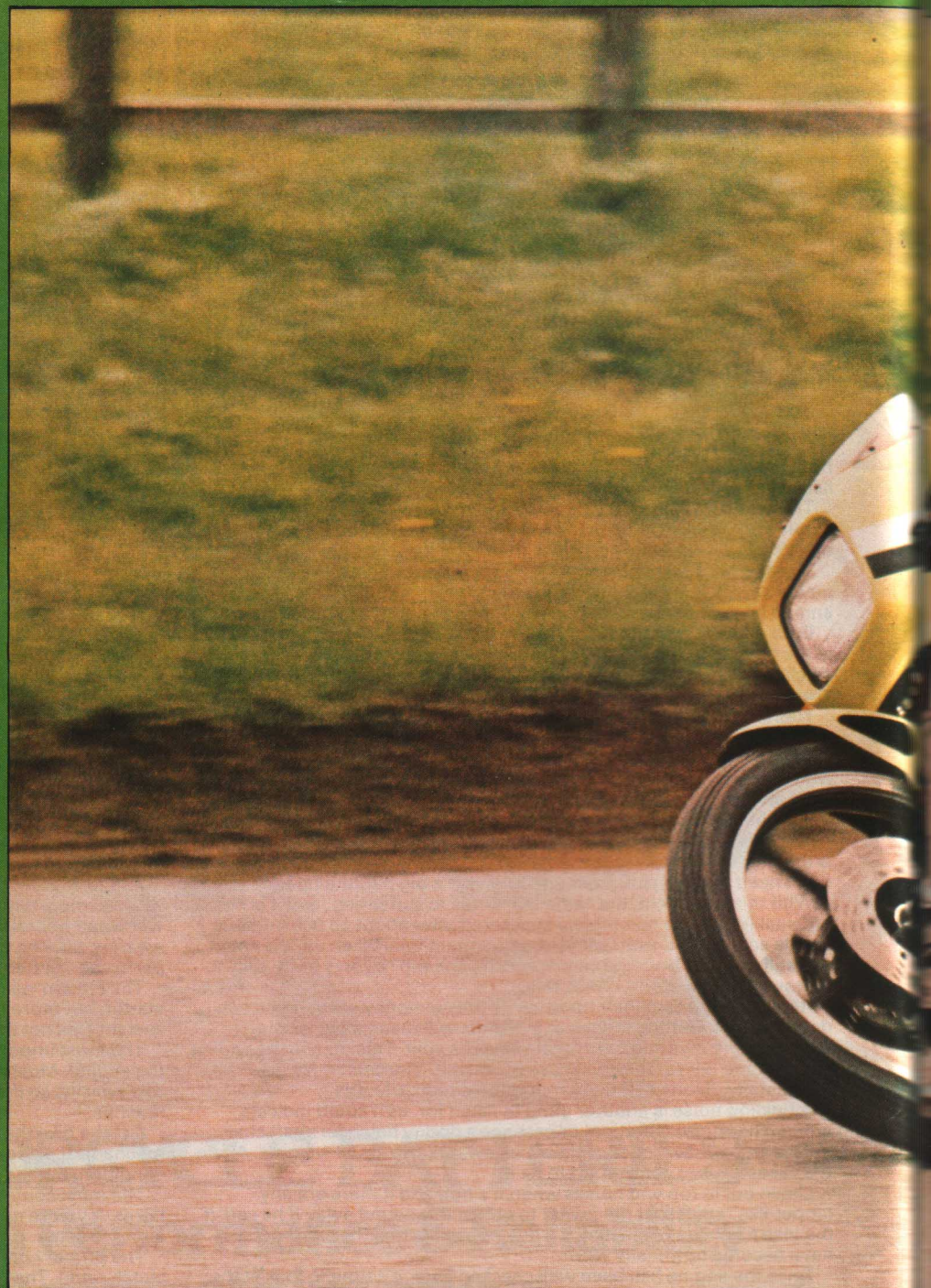
After SEP at Kegworth had repaired our damaged crankshaft (*Jaws 2, Mechanics April 1983*) all that was left to do, before the engine could go back together again, was to sort out the alternator.

The easy way would have been to spend £74.47 including VAT on a new stator. On inspection the rotor was also in need of some attention. New rotors are pricey too. The alternator suffered damage from two separate sources. When the bike hit the road on the lefthand (alternator) side, the force which bent the end of the crank also did considerable harm to the stator core and the coils. The laminated core was badly bent and some of the coils' windings were hanging loosely. To add to the damage, the engine was still running after the crank had been bent meaning that the stator and rotor were in physical contact. This caused nasty scoring on the inside of the rotor.

Now to find a firm that would or could undertake the repairs to the charging system of the bike was not, we thought, going to be easy. But as luck would have it, *Mechanics* designer Tony Baskeyfield had used a firm in the West Midlands to get a similar job done on his 900 Honda. He scanned his memory and came up with the name GB Electrics in Willenhall. After a quick chat on the 'phone, the damaged parts were sent by post for them to inspect. A couple of days later they called us to say that they could repair the alternator.

This was very heartening, although by

Right: Jim Lindsay in the process of discovering that the GPz550 handled as good as new. Leathers courtesy of Dave Saunders at Peterborough Kawasaki.



now we were becoming just a little complacent about what we could get done. Bearing in mind the work done by Pinckney Services (frame straightening), SEP (crankshaft repairs) and Don Woodward (tank) anything seemed possible.

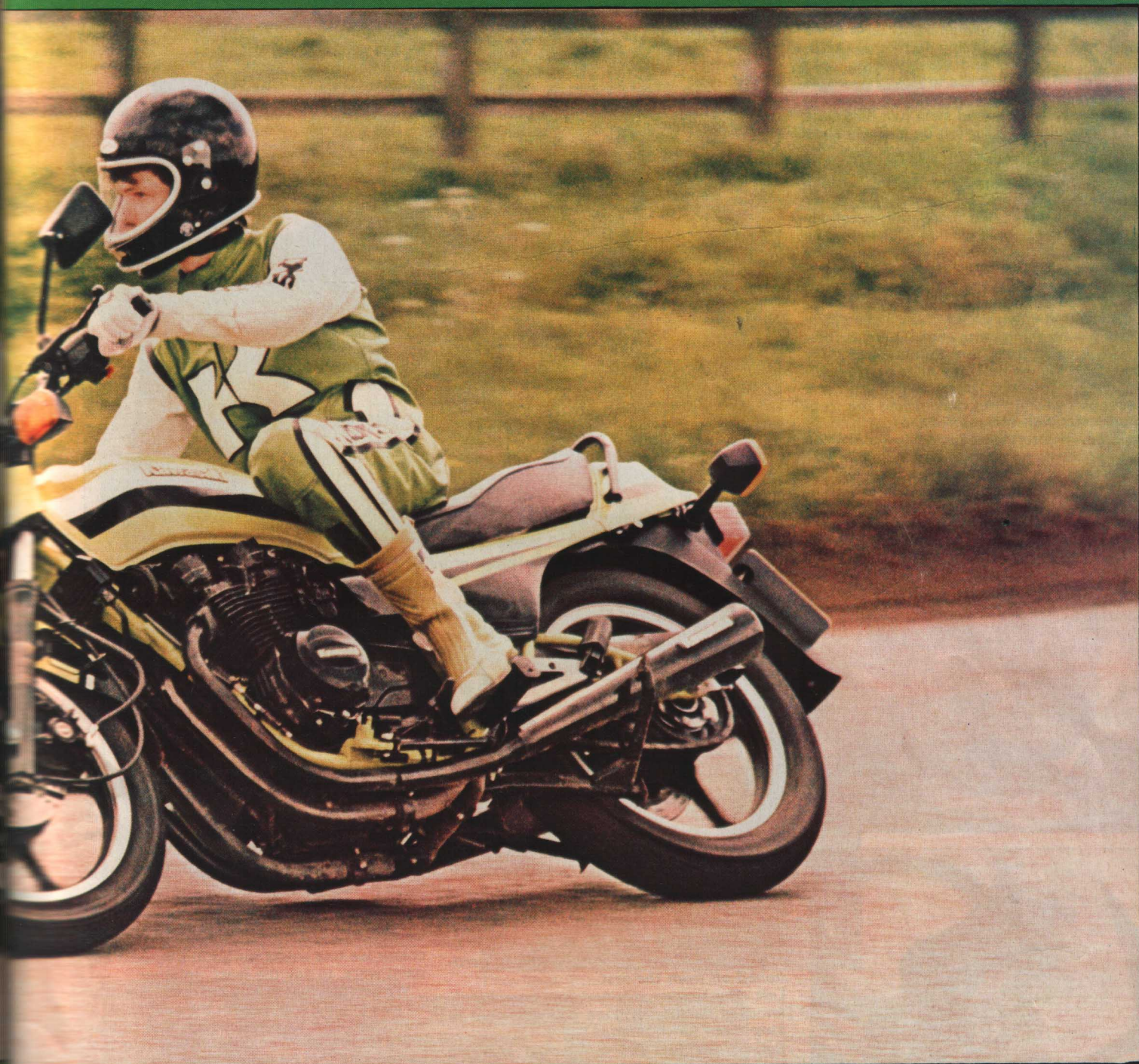
We arranged to go to Willenhall to watch what GB Electrics would have to do to repair the alternator. GB Electrics is a small firm with just a handful of very skilled people who work on the repair of all sorts of electrical equipment. Some measure of their versatility can be gleaned from the fact that on the bench next to our stator, were a 30hp motor from a large machine tool and a household vacuum cleaner motor, both waiting to be rewound. They were quite surprised when I said that I thought they could well get a fair amount of work repairing bike alternators. What they did, after checking to see how the winding had been done in Japan, was to strip off the copper wire which was woven

around the laminated core. The core had been bent quite badly and had to be pressed straight under a fly press. Coils of the correct gauge copper wire were then wound around the laminated core to form the 3 phase stator. The rotor was also given the GB treatment. The scored area was cleaned up and Epoxy Resin was used to repair the damaged shielded end. They did say that they could not check that the unit would work perfectly but they felt that it would.

When, some time later, the bike was fired up for the first time guess what? A steady 14 volts charge from the rectifier. Not really a surprise when you appreciate the skill of the people at GB. The cost was a mere £20.

With the stator and rotor repaired, all that remained was to put the engine back together and then rebuild the bike.

We arranged fairly defined lines of demarcation at the start of the project. One party to take care of the engine (me) and the



Photograph Rod Sloan

other the cycle parts (Editor Lindsay). Well an Editor's lot is not really a happy one and poor old Jim had to go to Japan (what a chore!), so, the completion of the bike was put off for a month.

We'd decided to do a trick paint job on the bike before it went back together. Tony Baskyfield dreamt up a very slick paint scheme and so all we wanted was someone who could do it for us. We tried a couple of places known to staff members but without too much success. I decided (and here I, one Screwloose, must take the blame for what happened) to look through the advertisements in various magazines to check out a few paint shops. Eventually, after some fruitless calls, I got hold of one Roger Vanner of The Motor and Motorcycle Repair Centre at Northallerton. He seemed confident that he could do the job and so I sent him a sample of the colour we wanted and Tony's design. I phoned Roger a couple of days later and he

confirmed that he could do the job and said that our specified colour was no trouble as he'd done some work on a Kawasaki that colour before. In case you hadn't guessed, the scheme was based on Eddie Lawson's Kawasaki racer on which he took the American Superbike Championship two years running. Transport of the parts to be painted was by courtesy of Securicor. For a small fee, they rushed the whole lot up to Northallerton in 24 hours. Well that was the promise anyway. As it turned out one of the three parcels took 48 hours, but anyway, they all got there.

I arranged to go up the following weekend and take some pictures of the parts being painted. The day before we, that is Patrick Gosling (photographs and clever quips) and yours truly, were due to set off to Northallerton I 'phoned again to confirm that it was still all right and to get the name of a good place to stay. Roger Vanner said that he'd meet us in the bar of the Hotel and that we could go

to a nearby nightclub (where he worked as a bouncer) after the Hotel bar closed.

So far so good. All went to plan and thus it was, at the appointed mid-morning meeting time the next day, we arrived at the paint shop. We've seen more disorganised places but it would be hard to recall just where! There among the empty paint tins, old rusty exhausts, part-stripped Ford engines and general paraphernalia stood our petrol tank freshly painted with Red oxide primer. The fairing, sidepanels and tailpiece were on the bench, untouched.

Upstairs, our frame was in the shotblasting area, half blasted. The swinging arm was untouched. Only a few hours previously, we had been told that we could take the whole lot with us finished if we were prepared to wait. We were not told how long we would have to wait though!

We departed from the paint shop in Northallerton and headed for Teeside to find Roy ►

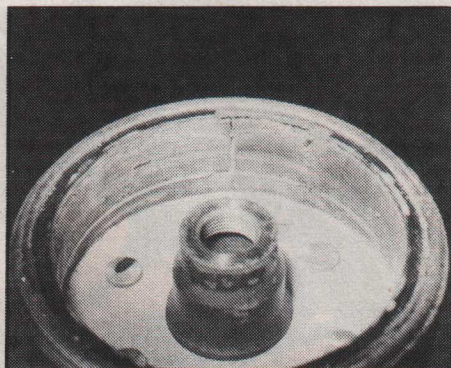
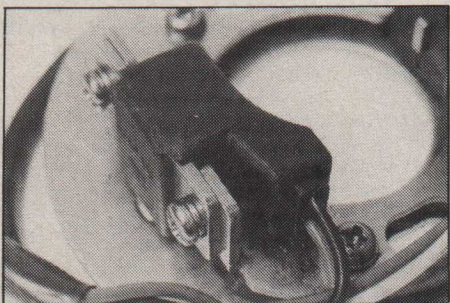
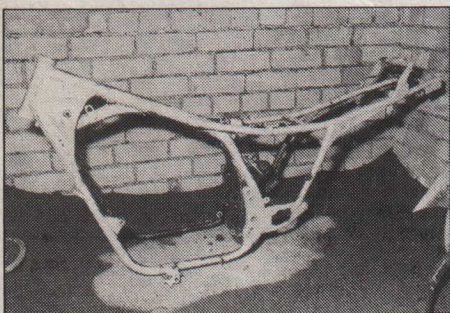
Thersby Motorcycles. The previous evening, Roger Vanner had explained to us that he was soon to stop trading from the Northallerton workshop and was handing over that side of the business to Roy. When this was explained to us it seemed fair enough but that was before we had seen just how little had been done. Roger left us at Roy's shop saying "I'll get it all finished for you next week and I'll bring it down to you." We had our doubts and they proved to be well founded.

Until this point, we had been extremely lucky with the people we had dealt with. The service, workmanship and efficiency together with the total absence of flannel which we had encountered, prior to the paint fiasco, had been very heartening. We were now brought down to the realities of actually getting something done at all! Quite deliberately, we had done two things. Firstly, we had not removed the outer cups of the steering head bearings from the frame and secondly, we had not despatched the front mudguard with the rest of the parts to be painted. The former seemed to have been overlooked as no attempt had been made to mask the bearings against the ravages of the shot blasting process. To quote our photographer "At least the bearings will be nice and clean after being blasted, won't they!"

The mudguard's absence had been noticed, however, and we said that we would send it up by post.



Messrs Grange and Burdett, the proprietors of GB Electrics, ponders the wonders of a Japanese alternator.

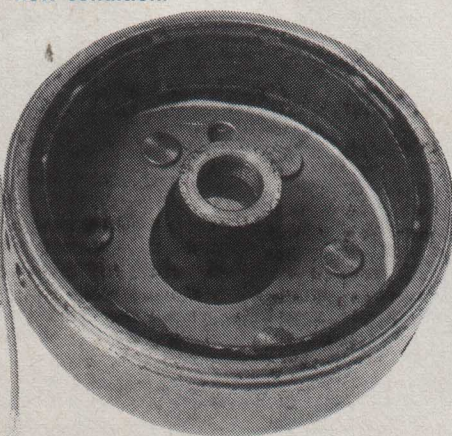
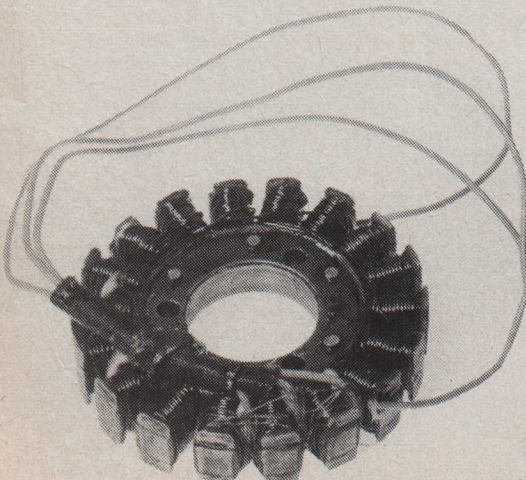


Above The inside of the rotor had been badly scoured where it had rubbed against the stator during the crash.

Above left: Shot blasting is carried out in one corner of the building which is partitioned off from the rest.

Left: The sender coils had only been lightly knocked but the damage was sufficient to stop them functioning.

Below: For just £25 a wrecked charging system was transformed into as good as new condition.



We returned from the visit to Northallerton with serious misgivings and wondered if we should have brought the whole lot back with us in the sorry state it was in. At the end of the next week we received a 'phone call to say that all the painting was done, only the top lacquer coating was needed and thus could we please speed up the arrival of the missing front fender. Off, with all available speed, went the offending item care of Data-post. We took Roger at his word and our secretary, Jane, went to collect the items (all having been ready several days we were told). If the mudguard was not ready Jane was told to tell Roger to post it to us.

When, after being kept hanging about for several hours, Jane got back to darkest Peterborough, she had only the frame and the swingarm with her. On inspection, the frame did seem to be something like the colour we had asked for but the runs in the paint were, to say the least, amateur.

We decided that as Roy Thersby had said he was to get the credits for the paintwork, it was now time to contact him. Roy apologised for the inconvenience we had been put to and said that he would go and finish the job himself and that he would bring it all down to us the next weekend on his way to the Bank Holiday Battle of the Twins race at Brands Hatch. At last we seemed to be getting somewhere. As promised, the parts were delivered with an undertaking to re-do any of the items with which we were not completely satisfied. Trouble was, we'd almost run out of time by then and could not take Roy up on his offer. Only paint had been applied and no polishing or lacquer coating had been done. To be fair the job was not at all bad. We were bound to be rather critical as both Jim Lindsay and I had been working to get the bike completed during the holiday weekend which would have been unnecessary if half the promised completion dates had been stuck to.

So there we were with a large pile of parts which, if correctly assembled, should make a GPZ 550. We needed to call on the help of Peterborough Kawasaki again for their clutch holding tool. We did have to take the clutch

off again because I, S. Loose (guilty again) put the shouldered spacer which fits behind the clutch on the wrong way round. Otherwise, the engine rebuild went well.

Eventually, the day dawned when the bike was ready to be fired up. It didn't. We suspected an incorrect connection in the wiring loom. We tried various of the leads and connections but they all seemed in order. Jim had to leave on a tough trip down to the German Grand Prix (what a hard life he has, if it's not Japan it's Germany) so electrical power generation specialist and *Mechanics* Assistant Editor, Malc Gough, came to help find out what was wrong.

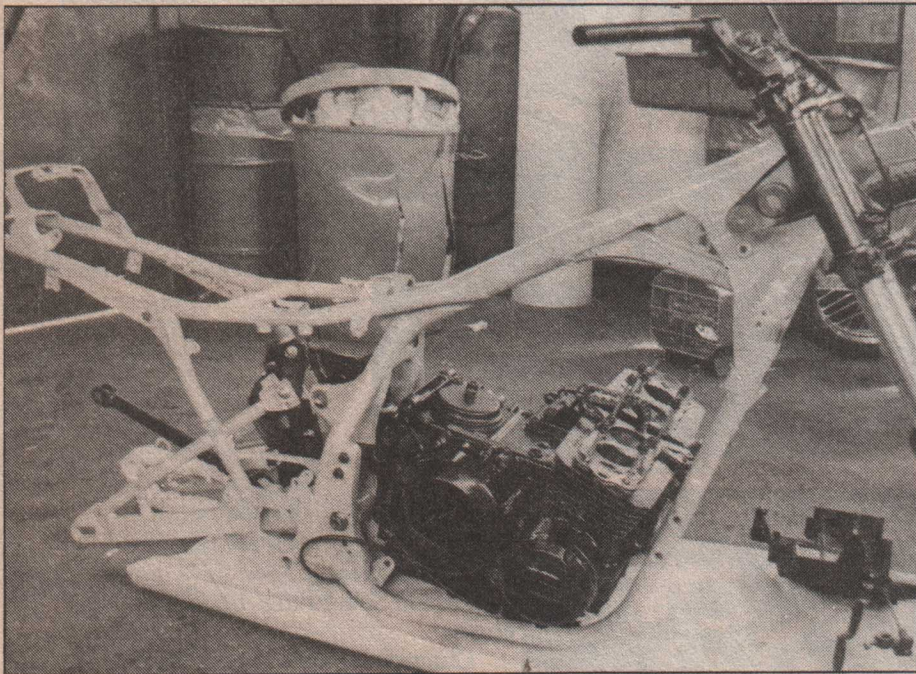
In the original crash the cover over the sender coils of the transistorised ignition system had been damaged. On fairly cursory inspection, it appeared that only the cover and one of its screws had been damaged. After doing the AVO meter test laid down in the Kawasaki manual, it seemed that the coils themselves had suffered some harm. A very slight scar was evident on one of them and it seems that this had been sufficient to stop the system from working. We bought some secondhand coils from a lad we know who was breaking a GPZ, fitted them and then, at the first touch of the button, the engine fired up.

Good stuff. That's my part of this story written so it's time for Jim Lindsay (he of the plastic bags, essential, he says, in any rebuild) to tie up the loose ends in the chassis department.

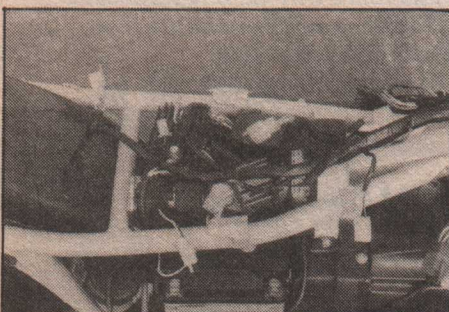
Colin Taylor



Only the tank had been sprayed with primer when we arrived at the neatly ordered paint shop in Northallerton.



We left the head off the engine and put it in before the wheels to protect the paintwork.



It took Lindsay several attempts to get the wires routed correctly in this area.



Halfway there. Lindsay and Taylor spent the Bank Holiday getting it back together.

I drew myself something of a short straw when I elected to handle the frame with its myriad of small and large brackets, the python-like wiring harness, the fit-me-if-you-dare airbox and so on.

Screwloose was way ahead of me when I started work, having virtually rebuilt the engine. The start of my end of the job was delayed further by the late arrival of the frame from the sprayers, already mentioned.

As Colin said, Mr Vanner had not masked off the steering head cups before blasting the frame so the first job was to obtain and fit a new set. No great problems there.

That done, we laid some paper on the workshop floor to prevent scratching the paintwork on the bottom frame rails and carefully lifted in the engine, letting it sit in something near the correct position. Easier to do it that way because, had we waited until we'd got the bike sitting up on its wheels before putting the motor in, we would have been far more likely to scratch the paint in the process. Also to the same end, Colin decided to fit the cylinder head after the engine was in the frame — a smart move.

From then on, putting the cycle parts back together was all fairly straightforward. I surprised everyone, including myself, by doing quite a neat and effective job of spraying the wheels matt black, this being achieved with one aerosol can of paint and only a couple of miles of masking tape.

By lunchtime on the first day, the bike was standing on its own two feet with the engine bolted in place. The easy bit was over. Next came the long process of attaching all the ancillaries. Three months had passed since we'd pulled the GPZ to pieces so much puzzled scratching of the head and many enquiring grunts accompanied the job as I set about remembering where all the bits came from.

It was a close-run thing to decide which component collected the *Most Frustrating Part of the Rebuild* award but in the end, the wiring harness took the honours, by a short snap connector, from the airbox. It took me, I must confess, three attempts to get the main



Lindsay (again!) posing in matching leathers on the finished bike.

loom on in the correct position so that all the spurs could be persuaded to find their ways to the necessary items of electrical hardware.

The CDI igniter unit, the starter solenoid, the rectifier and the fuse box of the GPz 550 are all mounted on a metal plate that sits between the seat rails just aft of the rear mounting for the petrol tank. The insulated spaghetti is pretty thick on the ground in that area and it took some time to work it all out.

Up the front end of the bike, however, life was easier. Unlike some bikes, the amount of wiring inside the 550's headlamp shell is minimal and, therefore, easy to hook up. You can actually just slap the light unit straight in once the connections have been made, instead of having to force it in against a mass of wires determined to resist its intrusion into their space.

On a general note, it's well worth taking the time when you come to refit the wiring harness to ensure that you get it correctly routed. Failure to do so can be bad news indeed. A twisted mass of electrical cables round the front end can have a bad effect on the steering and bad routing in general can cause chafed wires and, consequently, electrical malfunctions. Blowing up your CDI igniter unit, for example, can be (and usually is) frighteningly expensive.

Over the course of the Mayday Bank Holiday Weekend, while other more fortunate souls were off watching the Transatlantic Trophy races, I was shut away in the workshop slowly but surely bolting all the ancillary bits and pieces back on. I was also wondering when the aforementioned Mr Thersby would be arriving with the tank, fairs, tailpiece and sidepanels.

About 6 pm on the Sunday evening I started to get seriously hacked off and decided to call it a day. I missed Roy Thersby by about half an hour and got home to find two huge boxes containing the bits I'd been waiting for lying amongst the impenetrable mess of what we laughingly call 'the utility room'. (What? You mean this isn't Suburbia?).

At least Roy had taken great care over the packing.

I ferried the boxes back to the workshop then went home again to get some food down and watch, vainly, for some mention of the TransAtlantic results on the TV.

By the time I got to the workshop the following day, Bank Holiday Monday, Colin, who had arrived shortly before, had loosely fitted the tank, seat, sidepanels and tailpiece just to see how it all looked.

And it looked pretty good, even if the green paint was not much like the shade we had asked for. For the first time, we really felt as if we were getting somewhere with the project and it fired us both up enough to pitch in with a vengeance. We left the workshop that evening with the bike completed bar a few minor details (like it wouldn't fire up!).

I've got to say that it was quite a good moment the first time I fired the bike up and nosed it out of the workshop and on to the street. Colin had already ridden it around a little and said that it seemed to go, stop and handle OK.

He was right too. Bearing in mind that the motor was still just 260 miles old, I went for a blat around Peterborough's truly wonderful ring road system, laying the bike into roundabouts with increasing confidence.

I spent much of that weekend finding

reasons to go out for short spins and gently sorted through the bike, setting up the suspension, playing with the tyre pressures and tightening the few nuts and bolts that inevitably need attention as any newly rebuilt bike settles down. (There were one or two that I'd forgotten about too, I must confess).

The bike has now changed hands. Photographer Patrick Gosling bought it from us for the incredibly reasonable sum of £850, for which he's got himself a slick looking motorbike, 'Y' registered and with just 320 miles on the clock when he took it over.

And the cost of all this? Well, if you cast your mind back to Jaws 2 (*Mechanics April 1983*) the original dealer estimate for repairing our GPz from Boyer of Bromley came to £1,760.

Below is a breakdown of what it actually cost us to buy XGW 425Y and get it back into roadworthy condition. All prices include VAT.

Purchase of write-off.....	280
Frame straightening.....	51.75
Crankshaft straightening.....	46
Tank repairs.....	27.60
Rewind alternator.....	20
Weld frame.....	5
New spares and gaskets.....	108.95
One s/hand sidepanel.....	17.25
S/hand right-hand exhaust.....	28.75
S/hand tail light unit.....	17.25
S/hand ignition sender coils.....	20
Fibreglass matting, resin and filler.....	5.22
Paint for wheels.....	1.78
Screw extractor & drills.....	5.82
Spraying.....	120
TOTAL.....	£755.37

Even we were surprised, when we worked the figures out, at just how reasonable the whole deal has been in terms of hard cash. The spraying figure is approximate only. You could pay a great deal more or, with careful shopping around, maybe a little bit less. You could do it yourself with aerosol cans if you really wanted to save some money and get some fair results if you took care. The fancy colour scheme on our bike was just self-indulgence, for which we make no apology.

At current prices, the bike is worth £1,300, and perhaps a bit more if you consider that it was just weight months old and had a mere 300 miles on the clock when we sold it.

As we said when we started, we set out to rebuild the written off GPz and end up with a bike that would not only be completely roadworthy, but also be worth considerably more than the sum total of cash that we would have to spend to get it into that state.

Four months later, we've done just that, mainly by taking the time and trouble to repair, or have repaired, damaged parts, rather than spending a fortune on new parts. As well as that, it's been a fascinating and enjoyable project to undertake.

What's next? Well, there is another project bike in the pipeline but you'll have to wait two or three months to find out what it is.

We would like to thank all the following people who have helped us out with either parts, services, advice or information:

Mick Tanner of HP Motor Policies at Lloyddds
J. Pinckney Services, Alma Works, Takely, Nr Bishops Stortford, Herts — frame straightening
SEP, 39 Sidelity Road, Kegworth, Leics — crankshaft straightening.

Don Woodward, Sheet Metalwork, High Street, Morton, Lincs — tank repairs

GB Electrics, Willenhall — alternator repairs
Kawasaki UK — spares, manuals & information
North Coventry Kawasaki, Foleshill Road, Coventry — secondhand spares

Peterborough Kawasaki, Lincoln Road, Peterborough — loan of clutch holding tool, spares

Dave Saunders (Peterborough Kawasaki again) — loan of leathers for photo session