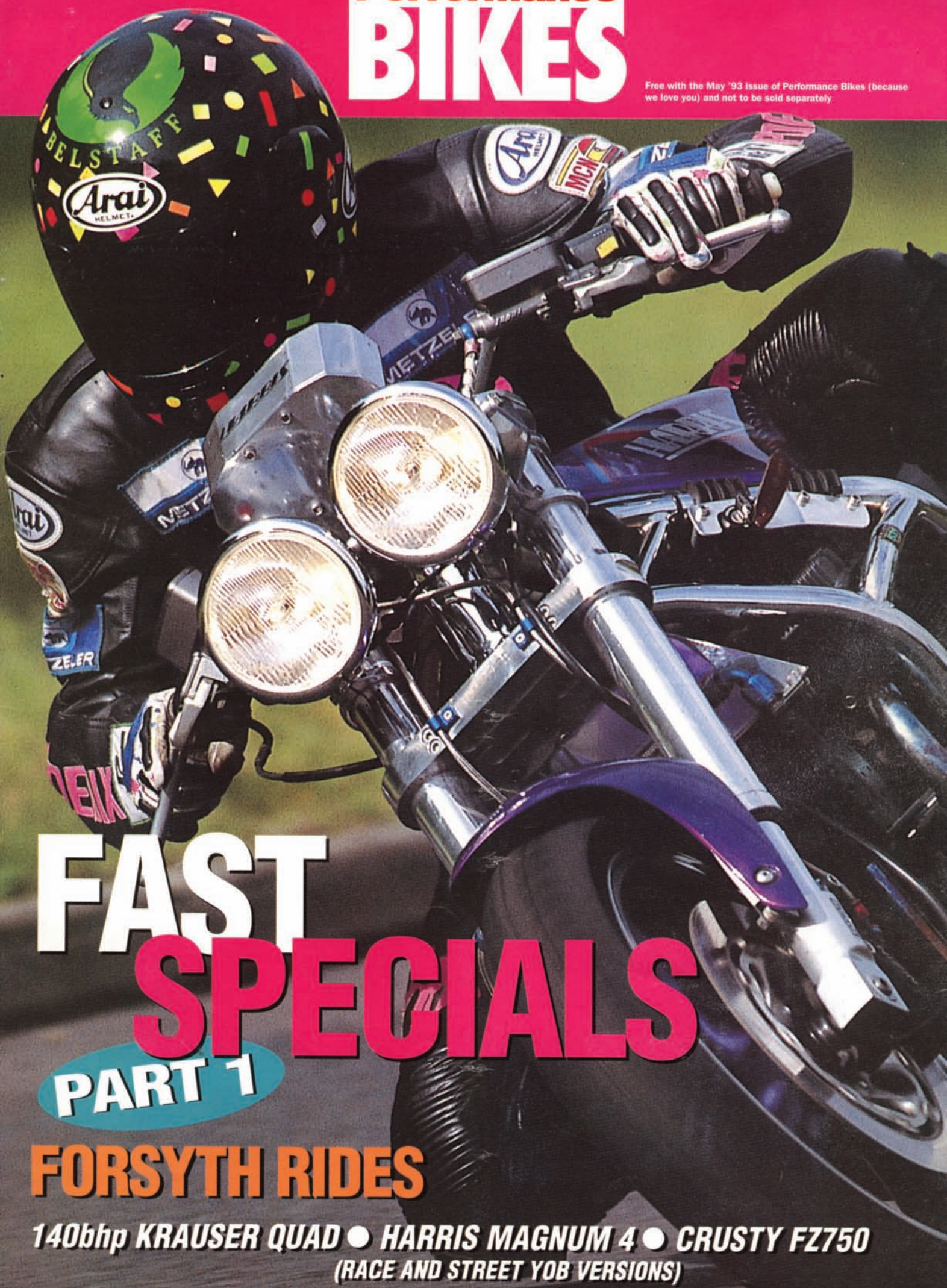


Performance **BIKES**

Free with the May '93 issue of Performance Bikes (because we love you) and not to be sold separately



FAST SPECIALS

PART 1

FORSYTH RIDES

140bhp KRAUSER QUAD • HARRIS MAGNUM 4 • CRUSTY FZ750
(RACE AND STREET YOB VERSIONS)

Harris MAGNUM 4s



Why bother taking your
GSX-R1100 to bits to
build a special? Because
it can be this good, that's
why.

Harris MAGNUM 4s



Bit of a camp posture, and plenty of opportunities to question sexuality, but we won't go into that. Instead, notice the difference in handlebar position.

WHAT ARE THEY?

Essentially the same bike. Or at least they were when they left Harris in kit form. They're Magnum 4s, both fitted with Suzuki's oh-so-strong GSX-R1100. There haven't been many Japanese superbikes of late that have needed an aftermarket frame to sort out the handling, but the big, hairy-chested GSX-Rs are a prime candidate. Good engine, good cycle parts but a bad chassis.

Robbie Kerr (the blue bike) and Gary Millings (the black bike) tackled their respective projects quite differently. Robbie sourced the bits he needed from

friends, contacts and breakers; Gary started with a complete, M-spec GSX-R. If you read both bikes' spec sheets they appear to be the same bike; see them in the flesh or, better still, ride them, and the differences are stunning. Clearly there's more than one way to skin a cat, not that I've ever tried of course. There are laws against that kind of practice.

Suzuki could learn a thing or two from the Magnum 4. It is infinitely superior in all the important departments

But the differences are only ergonomic and cosmetic: the similarities are many. For a start both bikes have been assembled with great

attention to detail in all the right places. They've a factory feel to them; the standard Suzuki parts haven't been

changed just for the sake of it. Both run the excellent Suzuki USD forks and front brake set-ups for the simple reason that there's not much else available that's better. You'd be looking at Öhlins USD forks and Lockheed brake systems — and a sizeable overdraft — to improve on Suzuki's gear.

When asked why they bothered to go to all the trouble of building their Magnums, the builders' answers were just different interpretations of the same idea. Robbie: "Having previously owned an FZR1000 and a full-power V-Max, I wanted a bike with good looks and engine performance — read torque. Like the V-Max but with good chassis performance". Gary: "Apart from the GSX-R1100M being the worst handling bike I've ever ridden, I was sick of spending money on the latest model and seeing the same bike wherever I went."

They were both suckers for the sinuous looks of the bare-bones Magnum 4 chassis. That they are in agreement about. From there, though, things change.

GARY MILLINGS' MAGNUM IV

WHAT'S IT LIKE TO RIDE?

Garry's Magnum is set-up how Harris intended... with clip-ons and a racing seat. The result just urges you to ride harder and harder. Because there's more of the rider's weight over the front end it's more stable at ultra-high speed and less wheelie-prone than Robbie's high-barred Magnum. Perhaps for the same reason the front suspension seemed to work better, too. Where Robbie's front end would patter a bit at the limit Gary's felt firmly planted, correctly sprung and damped.

At slow speed, though, Gary's bike was much harder to throw around. There's no difference in geometry and both bikes run identical ME1 Metzlers, so this is down to the lower seat and bars. We're not talking in terms of sheer physical exertion; it just takes a little more effort to flip the bike from full left bank to full right, like through a series of slow twisties.

And because it's less wheelie-prone in

the lower gears, you can get on the gas much harder exiting a turn, holding a tighter line rather than having the front wheel pawing the sky. Maybe not as much fun, but certainly more efficient and effective. As with Robbie's Magnum, there are no funny goings-on if you choose to feather the brakes mid-corner, or roll the power on and off: not at all like the standard GSX-R.

Suzuki could learn a thing or two from the Magnum 4. It is infinitely superior in all the important departments. Better on the brakes, steering and roadholding and much less intimidating — even with the

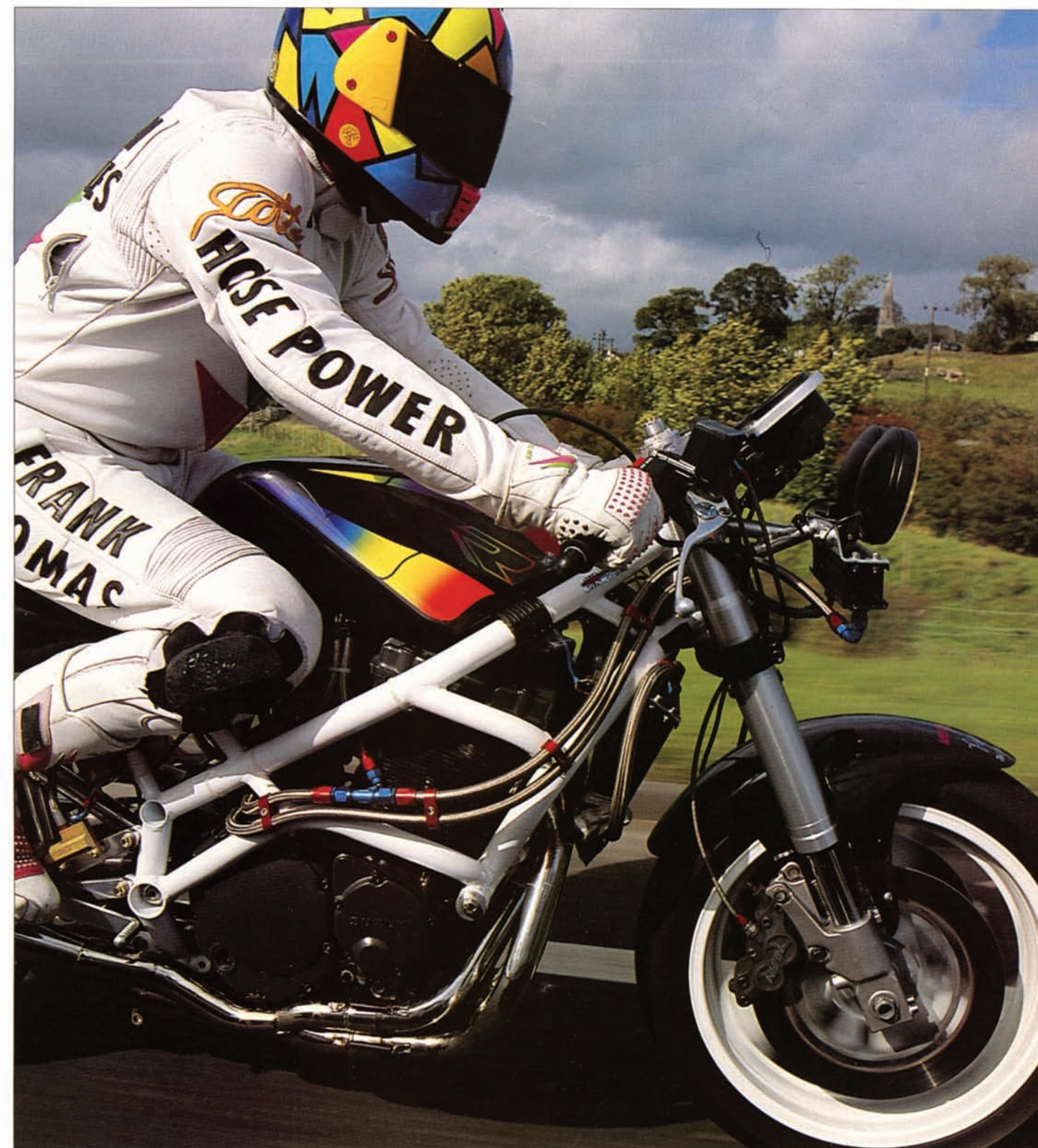
drastically improved power to weight ratio. The fact that Gary built his Harris in four weeks, producing a bike with no foibles or serious problems, speaks volumes about the design of the Magnum 4.

It's surprising how two Magnums can be almost identical in spec but very different in practice. If you ride flat-out everywhere then the race track feel of Gary's black Magnum 4 would suit you best; the way it steers, corners and goes when you really start getting it on has to be experienced first hand.

Robbie's Magnum is nicer for bopping

about on twisting roads, pulling for-ever wheelies and generally hoonin' around. But the crux of the biscuit is how easy they both are to get on, ride and ride hard. One of these things would run rings round a 1000 Exup if you threw in a few corners. The Exup would feel heavy, cumbersome and lazy in comparison. That, to me, makes the Magnum 4 a bargain.

Note the heavy front-end weight bias, the rider's Art Deco style crash helmet and gloves designed to stop you wiping your nose with the back of your hand.



Pics: Patrick Gosling

Harris MAGNUM 4s



ROBBIE KERR'S MAGNUM IV

WHAT'S IT LIKE TO RIDE?

With bars like this you just can't help yourself. This thing was born to wheelie. A riding position to gladden the heart of every true-blooded wheelie merchant; feet up under your bum, arms stretched forwards and out slightly. It makes you want to misbehave, m'lud.

The engine doesn't help matters. Now freshened by a stage three Dynojet kit and rorty (read too loud) Harris race pipe,

the GSX-R1100 motor feels stronger and sweeter than ever. It'll pull like a train from just 1,500rpm on a whiff of throttle thanks to the weight reduction and

carburation. Pile on the coals and it rockets up to the red-line in every gear without ever feeling stressed. Shut off quickly at high revs then roll it back on and there isn't so much as the slightest hiccup. It feels like a production

bike in all the best possible ways.

But thankfully it doesn't feel like the production 1100 in the handling department. Gone is that top-heavy, flop-

cleaned-up carburation. Pile on the coals and it rockets up to the red-line in every gear without ever feeling stressed. Shut off quickly at high revs then roll it back on and there isn't so much as the slightest hiccup. It feels like a production

bars aid nimbleness through corners up to, say, 100mph. Above that speed the

Robbie doesn't mind. He'd rather be sitting up and begging rather than burying his nose in the top yoke

rider's outstretched torso acts like a parachute fastened to either end of the handlebars, lifting much-needed weight off the front end. This makes it a bit twitchy at high speed. You can't blame Harris for it: their steering geometry is designed for clip-ons; it's dependant on the rider placing his weight through the right points. The big bars shift weight away from the front to somewhere approaching the centre.

Robbie doesn't mind. He'd prefer to be sitting up and begging rather than burying his nose in the top yoke, and having ridden it, I'm inclined to agree. It totally

changes the bike. For a race track it's not the best riding position but for the road it makes sense.

Roadholding, braking and steering are all as good as you're going to get. You don't need a ten mile ride to get used to Robbie's Magnum, you're used to it the moment the clutch is home in first. The only surprise was that the back brake was nothing more than a brake light switch activator. This didn't matter because it was dry, but when it rains we all need a back brake whether we admit it or not.

Comfy special? Shurely shome mishtake? The GSX400 seat (much modified), still with an abundance of padding, is a luxury on a special. It increases the rider's height slightly but not problematically.

And before you start judging this bike, bear in mind that it is blindingly fast, capable of revving out in top gear wherever you dare. It'll wheelie on the throttle in fourth, accelerating hard, kick its back end out if you're too eager with the throttle or, if you're really brutal, flip you over backwards and mash you to a pulp. Love it, love it, love it.

At this sort of lean angle the front end started to feel a bit light and pattery. Pattery? Yes. What a good word. The best cure was for the rider to put more weight over the front end. Softer springs please, sir.

Check out the home-made instrument binnacle using the standard clocks, the wide bars and deeper-than-deep paintwork. Yum, yum.

ROBBIE'S TEN SPECIAL BUILDING TIPS

1-9: Buy lots of drink and drugs.

10: Have access to a lathe.

How long did it take to build?

The frame kit arrived from Harris in January '92 and the bike was on the road by June.

What have you learnt from the experience?

Whatever you think the project will cost, multiply it by three. And when people say it'll take a week, expect to wait a month. You must be 100% committed.

Who would you like to praise?

Specials in Glasgow (041 954 4225), Protraction Motorcycles (0698 458899), S&T Electroplating (0454 313162), P&B Powdercoating (0698 791825).

What would you like to build next, money permitting?

Box section alloy frame to house a V-Max motor with chain drive conversion.

What did the bike cost to build?

I'm frightened to add it all up.



Harris 4S MAGNUM

WHAT IS IT?

ENGINE

1990 GSX-R1100L engine and carbs, stage three Dynojet kit, K&N filters, Harris race exhaust.

CHASSIS

Harris Magnum 4 frame and swinging arm, Öhlins rear shock, GSX-R1100L forks converted by Maxton Engineering, NWS 32mm offset yokes, GSX-R1100L wheels and brakes, CBR1000 front master cylinder, Harris rear master cylinder, rearsets and tank, pillion footrest hangers by Neil at Specials of Glasgow, Robbie Kerr paint, Colin Black clock cases, rear subframe and battery box, K&N Superbike handlebars, Goodridge hoses and oil cooler. Special thanks to Islay for being so minted (eh? - Ed).

Robbie Kerr built this Magnum 4. He's from Glasgow and, not

surprisingly, paints things for people. The inch-thick-looking candy blue lacquer over silver base is a great advert for his

talents. In bright sunshine the paint is simply stunning; it makes you want to run your fingers over it to see if it really is that smooth. It is.

But what's this? Chrome plating? Didn't that go the same way as XS400 US Custom Yamahas and twisted steel cissy bars? Until we saw this Magnum we had hoped that chrome plating was a thing of the past, banished to the production lines of Harley Davidson and Neval. But now we're forced to reconsider. Shiny electro-plating seems to suit the big diameter tubes of the Magnum 4 frame, especially with dark, glossy paintwork. It's also less prone to scratching and doesn't need polishing all the time like aluminium.

To complete the shiny theme wheels, forks, swinging arm and clocks are polished to buggery. There are no sandcasting marks left in the wheels, nor machining marks on the fork tubes. Had Robbie

done it himself, all the polishing that is, we'd be forced to make some Freudian comment about regular and disciplined potty training in infancy, manifesting itself in adult life as a stickling tendency for cleanliness and tidiness. But he didn't. S&T Electroplating in Bristol (0454 313162) did it for him, and very nice it is too.

After your eyes have recovered from all these reflective surfaces you can't help but notice the K&N Superbike bars. They're as alien to a 1992 Harris Magnum 4 as the chrome plated frame but, strangely, they seem to look perfectly at home. Maybe the twin Bates-style headlamps help, or maybe the high-rise GSX400

seat unit. I can't quite put my finger on it but, whatever, it looks the business.

Apart from the clock binnacle the only other thing different from Gary Milling's black Magnum 4 is the swing arm. Looking at both bikes it strikes me they'd be better off swapping swinging arms; maybe since we tested them they have. Robbie plumped for the sheet-alloy fabricated job, a similar version of which graces nearly every racing OW01 in the country. There's no doubting the box section swing arm's strength or integrity but there are two penalties; it makes changing spring preload a shock-out job and there's a lot of chain clatter as the chain slaps around in its tunnel.



Fabricated swinging arms look great and are stronger than a Swiss Franc but cause much clatter from the chain as it flaps its way through its tunnel.



Aesthetically pleasing from every angle, Robbie Kerr's Magnum 4 looks even more stunning when parked on a reflective background.

Performance Bikes

NUTS AND BOLTS

What you get in a Harris Magnum 4 frame kit:

frame in Reynolds 531 tubing	£1050.00
aluminium swinging arm	£350.00
carbon fibre rear mudguard	£75.00
steering head bearings	£22.00
rocker arm assembly	£140.00
Öhlins suspension unit	£388.00
rear wheel spindle and adjusters	£35.00
footrest plates	£35.00
two footrests	£16.00
all relevant engine plates	£16.00
aluminium fairing brackets	£30.00
bikini fairing	£117.00
two Cibie headlamps	£69.00
side stand	£49.00
tank with flush-fitting cap and one way valve	£240.00
seat unit with upholstery	£114.00
Harris rear brake master cylinder with reservoir	£66.00
rear brake lever and linkage	£44.30
tank retaining and mounting rubbers	£13.70
gear lever and linkage	£51.60
battery box	£28.00
price assembled	£2949.60 plus vat

You also need a GSX-R1100 or 750 motor; its forks, wheels, brakes and electrical components; and loads of other little bits and bobs. If you plan to build a Magnum don't forget the sometimes forgotten costs of good quality drive chain, the best tyres you can afford and, as Robbie says, think of a price and treble it. That way you won't be too surprised at the final bill.

One cost not yet mentioned is an exhaust system. For a pukka, lightweight race system you can spend up to £650. But for a bike like this, so easily capable of licence-munchin', warp factor speeds, I'd plump for a fairly quiet exhaust so as not to attract too much attention. I mean, if you'd heard either of these Magnums at full chat, with their Harris race pipes (£295 plus vat) wailing away in the distance, you'd see my point. They are far too loud. People who habitually speed don't need loud exhausts.

Put everything together carefully using a tube of Loctite and you'll end up with an awesomely capable superbike that you won't find parked on every street corner. I'll have a dozen, please.

Bike on right wheelies much more easily than bike on left. While rider on left is using bodyweight to get the front end down, rider on the left is straining every muscle and clutch plate to get the front end up.



Fast Specials May 1993