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## Motoring Feature – Ford Ka Rally Car.

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Chris Birkbeck jumps into the drivers seat, snaps the master on and turns the motor. Just like me first thing in the morning, the Ka barks, half dies, then catches into a grumpy tickover as the oil pressure comes up, Chris constantly blipping the throttle. No ECU warm up map, then. After a minute or so it sounds a little happier, he grabs the gearshift, the dog box goes 'kerchunk' into first and the cams and gears stop rattling as the engine blips skywards in a sharp snap. That'll be a lightweight flywheel, then... Clutch in and the rattling straight cut gear noise is lost in the exhaust bark and Chris sets off up the test track, firing in the gears with what sounds like only a few hundred RPM drop each time as he goes up the six speed box into the distance. The quiet lasts for a few moments as we wait for him to come around, noise building as the Ka approaches, nose torque steering from side to side like a hungry ant eater as the limited slip diff drags the car up the track back towards us. A quick lift, then turn in, left foot on the brakes and the mad little device cocks a rear wheel in the air before screaming off up the gears again.

After about half a dozen laps, we reckon we've got the shots we need and Chris slows down, grinning. "I sometimes forget what great fun these things are." Although he's been out of the drivers seat in front line rallying for a few years now, Chris clearly hasn't forgotten what to do, even though these days, the stresses of running a full time rally team means that he doesn't get to do the fun part very often.

Although Team Birkbeck Rallysport own the car you see here, it's never driven in anger by Chris. The Ka was built specifically for the BTDR 1400 championship and last year's pilot was none other than championship winner, 23 year old Luke Pinder. For this year, he's staying with the team and moving across to the Puma Super 1600 in his quest to be in a WRC seat by 2012. Jumping into the vacant Ka is young Scotsman Callum Bendall to do battle on the now renamed Silverstone Tyres 1400 series. The championship is designed to find the rally stars of tomorrow and while there's no official age limit, it's fairly obvious that if your age starts with a three, you've missed the boat here and should probably be looking at historic....



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A look around the car shows the no-compromise approach of the team. A very substantial Safety Devices cage together with Sparco seats and five point Sabelt harnesses gives away the fact that these young chargers have commitment with a Big C and the team fully expect some panel beating and recovery work this season. Chris is no stranger to running young drivers, having recovered the wreckage of such names as Chris Meeke, Francois Duval and Guy Wilkes in his years as a team principal and the experience shows in the build. Big labels in capital letters on the switchgear for those red haze moments doing battle mid-stage, big rev counter positioned as close to the driver's eye line as possible with the incredible 9,000 rpm limit marked with a big line – these kids don't always listen, y'know... Just a hand span away from the OMP steering wheel is a large upright handbrake for those hairpin moments and below that, the adjustment knob for the brake bias box. Bracketed to the roll cage just inside the driver's door is the ECU, swappable in seconds if needed, while behind the driver's head, a CamelBak drink bladder is testimony to the fact that getting the best from one of these cars can be quite hard graft.

"The big challenge with these cars is to keep them singing and never let it catch a breath, just like the Puma S1600. Unlike an Evo or Impreza with a turbo giving good mid-range, these things have to rev to make power", says Chris. "If it falls off the cams, it'll bog down and you lose loads of time." Couple that to a young bloke with a point to prove and a gravel stage with trees and ditches and you really do start to see the quick kids shine through. "I think pretty much all the top WRC guys made their name in front wheel drive cars like this one. If you're quick in one of these, then the people that matter really take notice. Take that skill and commitment to a World Car and you've got the next Loeb."

So apart from the obvious safety stuff, what is it that makes this little Ka go like it's been drinking Red Bull and Espressos for a month? Well the Scholar motor is built to the strict regulations and has all steel internals that allow it to rev to 9k in the quest for power, but it sounds like it's pulling double that and puts out 165 bhp. The gearbox casing must be standard, so no sequential shifts, but there's room inside for a six-speed dog cluster with closely stacked ratios that keep that little engine in the torture zone. The short wheelbase of the Ka can make it a real nervous handful, especially over very fast crests and in high speed stuff, so Pro Flex dampers with remote adjusters are employed and the suspension is fully rose-jointed. The steel plate limited slip diff helps



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the traction out of the slow corners and the brake bias box hopefully supplies a get out of jail card for those moments when the co-driver calls "Tightens...." In those rare moments when it occurs to the driver to brake, Alcon four pot calipers and standard solid discs at the rear are a reassuring sight behind those horribly expensive lightweight magnesium Speedlines.

The whole car has an air of bad tempered Jack Russell about it, from the wheel-at-each-corner stance to the grumpy tickover and the snappy, lightning-fast throttle response. Indeed after Chris had finished his laps for the camera, we walked round to the front grille half expecting to see it's tongue hanging out.

The BTRDA series has already kicked off for this year, but there are nine rounds to the series so if you want to see this little monster in action and get yourself your own personal gravel rash, take a look at their website to see when it's near you. I'd suggest a camera and a good vantage point. And perhaps when you hear it coming, a step or two backwards and a large tree to stand behind.....

BTRDA Rally Series - [www.btrdarally.com](http://www.btrdarally.com)  
Chris Birkbeck – [www.gorallyschool.co.uk](http://www.gorallyschool.co.uk)

Technical:

Engine: 1400cc, twin cam. All steel internals with custom ECU, 9,000 rpm limit. Time between rebuilds approx 1 season.

Transmission: six speed straight cut dog box in standard gearbox casing. All steel limited slip diff.

Suspension: Proflex dampers with remote adjusters, Eibach springs, rife height and rates variable, depending on surface

Brakes: 4 pot Alcan billet capilers front, solid discs rear. Brake bias box with driver adjustable control. Hydraulic vertical handbrake

Chassis / body: Seam welded shell, Safety Devices cage, Sparco seats with Sabelt five point harnesses,



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