

PEDIGREED MONGREL

Rickman Interceptor 750 road test

Story by Alan Cathcart
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Britain's iconic Norton motorcycle marque was founded in the 1950s by brothers Derek and Don Rickman, offroad aces who were household names in Britain thanks to BBC-TV showing the Scrubiders racing in which they excelled every Saturday afternoon in winter.

After achieving dirt bike dominance with their stiff, good-handling bikes powered by British twin and single engines, mayhem did something comparable to road bikes. 10,000 went on to briefly become Britain's largest custom bike manufacturer after the demise of Norton (the first time around), and before John Dorey renamed Brough.

The Rickmans' creations not only represented a key stage in the evolution of the modern offroad bike, they also played a role in helping the Japanese manufacturers discover the black art of frame design for their 4-cylinder street bikes, in making frames that handled and steered like no other. While the Rickmans' bikes had some quirks, without trying to knock the rider off in doing so, the fact is my the brothers' bikes changed the face of modern motocrossing, even if it took little appreciated today by exactly how much.

Way back when

That success began with the arrival nearly 50 years ago this year of the prototype parallel-twin Rickman Interceptor 750, which was displayed at London's Racing and Sporting Motorcycle Show in February 1970. Until that, alongside their offroad bikes from 485 to house-friendly 660, parallel-twin and inline engines that were then rare outside the Rickmans' workshop, had only just begun to build complete zero-production bikes for the NW Enduro offroad market, which were moreover exclusively powered by 225/250cc parallel engines from Minarelli and 200cc Engle, not the British 4-strokes they'd made their name with. An adapted Street Minarelli version of the offroad frame had been available from 1968 onwards for those wanting to build Rickman-tuned road bikes, predominantly with other Triumph 750 engines. Owing efforts to obtain supplies of this engine to 60,000-plus motorcycles were initiated by the Meriden factory.



that Street Minarelli 750, 200 delivered to Royal Enfield owners Enfield Precision early in 1969, had been modified by the technical team headed by Dan Rickman to accommodate the essentials of one big, Thomas-designed 1½-liter version of the 750cc Royal Enfield's two-speed engine introduced in 1965, on display at the London Show alongside its sister, and at this stage it was envisaged that Royal Enfield would launch its own offroad model based on the Rickman design. This could also be adapted to polar use, and indeed an Interceptor-engined Rickman-style touring chassis No. 101 was delivered to BSA's Peter Fenton in June 1970 for evaluation. However, the Rickmans' original intent was to develop their own engine, though this did not come to fruition, without the support and time needed to do so in their own engine.

Thus the colorful American two-wheeler company



Royal Enfield had made a deal with Enduro Industries to supply an initial batch of 200 Interceptor Mk 1 engines and gearboxes. They were to be sent to Italy for assembly. Fabrizio, owner of Italor Motorcycles, to put them into Italian frames, redesign the model as an Indian, and ship them to the U.S. to promote the return of Indians to the Indian brand, whose trademarks he held the rights to. Tuzarini had already produced a Velocette-engined 350 Indian single fighter. Bill Clymer died in January 1970, aged 74, by which time just 62 Royal Enfield engines had left England for Italy. The remainder of the arrangement was held by Clarendon Birmingham, U.K.-based shipping agents P. Mitchell & Co., who already had dealings with the Tuzarini brothers. It emerged that Clymer's son, Arthur, had asked them to build a batch of British-framed motorcycles using these Interceptor engines. It took until the end of the year for Enduro Industries to approve a release of the engines, but in January 1971 assembly began in the newly equipped Rickman works in New Milton of the first of the 116 examples of the production Rickman Enduro Interceptor to be built with six frames at a time each working simultaneously assembling a complete bike. It was the first time that the Rickmans had produced a series production model like having their name.

Originally priced at £790 and available in blue, orange or cream, none of what by the standards of the day was a very high-performance motorcycle — the first over-production loss with disc brakes front and rear — were initially slow, until the price was dropped to £690, whereupon they took off. Without

their own dealer network in the U.K., the Rickmans arranged for major South London dealer Elite Motors in Tooting to sell the model exclusively, through Michelin-tired 26-inchers with three numbers 1001-26 to sell abroad, mainly to Canada. This was effectively a back door into the U.S., where several of the 26s went on sale for \$1,495, with a spare engine available for \$550. Direct sales to a country where the Norton name was already legendary, and where 546 examples of the standard Mk 1 Royal Interceptor had already been shipped, were impossible because BSA's California-based U.S. importers Sorensen had run into trouble after a failed takeover.

That engine

The Rickman Interceptors used modified T100 parallel-twin OHV two-carb engine set firmly in the tradition of British Big Bikes, except that the essentially all-new Mk 1 version was a full wet-sump design with much improved lubrication, instead of the Mk 1's separate oil sump/cap cast into the vertically split crankcase housing. It featured separate cylinders with cast iron sleeves and aluminium heads, each with two valves per cylinder and a dynamically balanced rod/tube 380-degree crank. Its three 39mm ultamatic and an 8.5:1 compression ratio produced 32.5 horsepower at 6,500rpm at the gearbox, with substantial torque. This was the same 4-speed Allbar from before, bolted to the rear of the crankcase for a sort of semi-unit construction, with duplex primary chain and a trademark RE neutral shifter bar a much improved 4-gauge oil-tach switch. The 1½ Litre capacitor



left painted the Rickman a bright orange VW shade (above). The engine is fed by two 30mm Aerial Mark 1 carburetors (far right).

system with twin coils and automatic was triggered by contacts operated off the end of the exhaust camshaft, hidden behind a triangular fairing cover. Carburation was by twin 30mm Aerial Mk 1 Concentric, and Thomas' redesign meant that the cockpit oil leaky fittings for which the Mk 1 version of the engine had become notorious, were essentially cured — at least when new. The internal air cooler fitted to the Mk 1 Interceptor was absent from the Rickman — finding space in it might have been a hazard.

This new-generation Interceptor engine was wrapped in a standard Street Norton triangulated duplex frame modified to suit an Enduro chassis. Because the newer Interceptor engine was wet-sump format, it was wider across the bottom than anything we'd used the Street Norton frame for before, he says. "So we had to make the lower part

1971 RICKMAN INTERCEPTOR

Engine: 746cc air-cooled parallel OHV 4 stroke parallel twins, 7mm x 7mm bore and stroke, 8.5:1 compression ratio, 62.0hp at 6,500rpm at gearbox.

Top speed: 117mph

Construction: Twin shock rear, MacPherson front

Transmission: Alistair speedo with duplex chain primary drive and the state-of-the-art clutch

Brakes: 750cc front capacitor with four-pot

Front wheelbase: Machined, double-walled chrome-moly tubular steel double cradle frame, 51in (1,295mm)

Rear wheelbase: 37.3in (945mm) telescopic link front, 12in steel swingarm with dual Girling disc brakes

Starter: Engle-Stein 200mm disc front, single 7in (178mm) disc rear

Tires: 4.75 x 18in front and rear

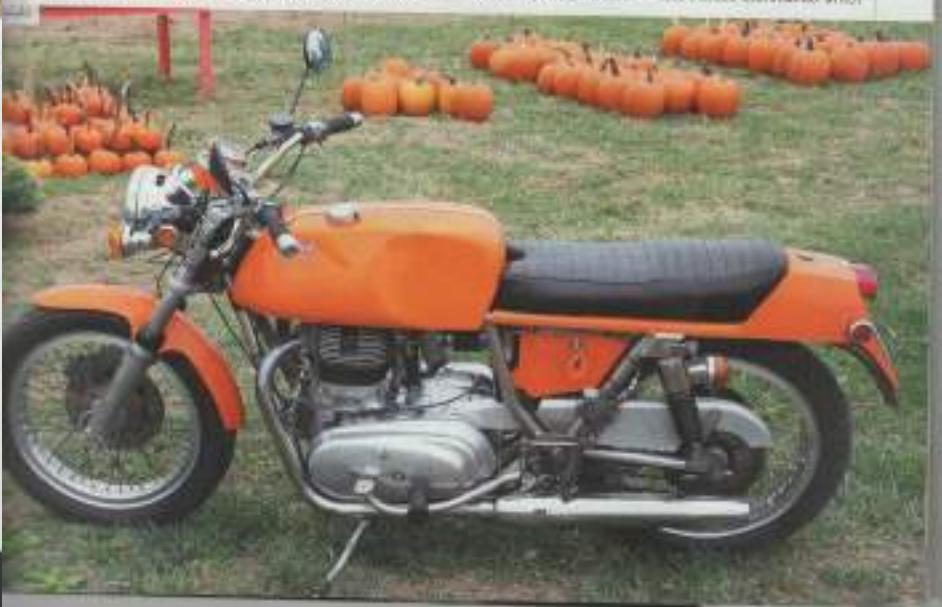
Weight: 500lb (dry)

Seat height: 30in (760mm)

Front track capacity: 140kg (308lb)

of the frame cut a little to fit the triangulation sit between the rails. As with all our frames it was entirely self-brazed-welded using Reynolds 531 steel tubing, because when we went [sic] getting started, before designing our very first frames we went to the Reynolds company and talked to Ken Sapperton. In those days he was the whiz kid for frame construction, and he showed us all the technical stuff, including his tricks of the trade. We never used anything else after that."

The frame was ribbed-plated — another Rickman feature from so long ago — with the frame own mostly-looking telekink set at a 27.5-degree rake, and carried in Rickman original triple-clamp. The sturdy front end was required because of the cast iron dual-shaft fitted front end case for the first time ever on a production bike — the Norton Commando which





The 736cc air-cooled twin makes 52.5 horsepower at 6,500rpm (left and right). The 8-inch front disc brake (middle).

was the Rickman Enfield's closest rival back then; still had a drum rear brake.

"Our road racing entry, Tony Williams, came to us with a big can of worms, and he knew a disc brake is that his South African rider Paddy Oliver had brought back from America," said. "Can we do something with that?" recalls Dori. "So we had to develop our own hub to use it, because I needed a caliper bracket on one side, and I all very much them. We'd started using the front disc with Matchless bikes, but there were some strong enough to add to the braking force without deformation, so that's why we went to 1.58-inch tubing, to prevent that. But I say it, we saw the first people to go to the big tube forks, because we started out with a Lockheed cast iron disc brake which worked much better than the steel one Honda used on the CB350 Four's front wheel; you needed something sturdier to withstand the braking forces. And we'd go up to 1-inch-dia. all the time more, 1.68-inch (50mm); that makes a hole much stronger. Plus, we had our triple clamps made out of some very high-grade alloy material, the same as in factory we got to make them for us in France used on the Canetecle aircraft undercarriage; they were then racing parts for our feed crowns were forged, too, not cast, which made them a lot stronger — we never had a triple clamp break over, not even with the worst of impacts off-road. After the first seven bikes the large U.S.-sized front hub, which was also rather heavy, was replaced by Rickman's own light-alloy cast hub, same as at the rear."

Front to back

The tubular steel swingarm carried twin circling shocks, but featured a unique means of chain adjustment. For the first time ever on a series-production street bike, via an

eccentric camshaft pivot. "What we really set out to do on all our frames was to hold the back wheel below the front one exactly," says Dori. Rickman explains. "So what we had to do was stamp the rear axle stepped to the sprocket, and alter the chain adjustment at the front pivot, which made it very rigid. We had to design the steering head so that if I held the handle very rapidly, via our own forged triple clamp and bigger diameter front tubes, which were very strong, it wouldn't get very wobbly at all. Then from the steering head to the swingarm, the frame had to be such that it wouldn't bend in any shape or form. And the other aspect of it was that as long as you used the same chain on both sides, the braking forces would always be in line as well, as wouldn't affect the steering."

Fitted with an 8-inch-diameter front and 7-inch (180mm) rear brake discs, each clamped by a single-sided Lockheed caliper, the Rickman Enfield weighed in at 365 pounds dry, a massive 61 pounds lighter than the stock Interceptor six (426), which it shared the same 500cc Velocette engine, because the lighter frame and brakes. The British factory of its time-saved signatures were weight, adapting as that, while the broad, low-slung 8-gallon fuel tank as well as the base of the long, flat seat, was slightly raised, passenger space was all ready to fitfulness at the Rickman factory, with the seat now extending back to encompass the tail section and seat lenses. At 30 inches, the Rickman's seat height was an inch lower than the Enfield, though, while the open handlebars, ensure that the

expected dropped-table silhouette, was a more sleek design resulting in a more upright, less forward riding position. Another controversial feature were the front-end fairings, which saw them compared to small section tubes welded to the two square-section telescopic tubes, strange but apparently successful.



Rick added turn signals to his Rickman to make it a little more usable for group rides.



Joe's Rickman

Rickman's interceptor are few and far between nowadays, with around half of the 100 such bikes built known to have survived. One of these, carrying frame no. 1112 RIC made in June 1971, was one of the 100 bikes shipped to Canada, and then transposed to the U.S., where it soon came to keep in company with anything that might be running. Placing it together was an extremely difficult puzzle. I had an Enfield catalog which covered the engines, but had to rely on pictures in old magazine articles to create a complete stock Rickman. The seller made

good on his promise to ship me all the loose parts. Apparently he had enough to build two or three more of them."

"Long story short, I shipped him a pile of money, and he sent me a pallet with a 3/8-huge box containing most of a motorcycle, along with documentation that had to tie up with anything that might be running. Placing it together was an extremely difficult puzzle. I had an Enfield catalog which covered the engines, but had to rely on pictures in old magazine articles to create a complete stock Rickman. The seller made

good on his promise to ship me all the additional parts, but many others had to be sourced elsewhere, and still more had to be fabricated — like the engine plates, for example, that I never actually completed it, and, it's necessary does to what it should be, added blocks, when the car supposed to have, but I think 10,000 miles about how it should look — I painted it a

96 shade of orange, which is the closest I could get to the original Rickman 101. The resulting bike is unique, and its inevitable through riding it to justify recreating it."

"I grew up more to riding within a larger framework of buying a brand-new Rickman Interceptor from Elce-Motors back in 1974, when the last few unmodified bikes were still available. Living in London back then, I actually rode it tooting twice to look at the time, and once discussed the trade-in value of



Cavy roads are where the Interceptor shines (left).

my purple pearl Suzuki GS750 triple, before deciding to pass it up. Why? Partly because I'd heard that the long-awaited 1988 model replica of Paul Smart's now 20-year-old design. Vespa can finally going to become available later that year, but also because I just couldn't get comfortable sitting on the Michigan—thanks to the strange snarl-neck slip-on handlebars with their already-meets-digester-gape-puffed-Vespa neck. Coupled with the Vespa's mounted surprisingly far forward for a bike that looked like the ultimate Vespa handle-side (more notes otherwise it was — a 600 cc after-David-Tutera) it was mounted in a very upright manner and at all, it keeping with the rest of the bike. The Vespa was definitely breakable — it couldn't decide if it was a cafe-racer like the Suzuki's dual-sided front-end or a street-touring-style sportster like the Suzuki I was already riding. Plus, I just couldn't get my head around the Vespa's being reported as the ultimate!

The fact that Elsin Motors didn't have a demo bike was another reason for me walking away — it took almost 20 years for me to finally discover what a Royal Enfield Interceptor was.

After much of the options.

Assuming that machine can be hard work, too, because starting the Interceptor took quite a bit of patience. In the absence of the electronic ignition (becoming available on other models like the Benelli Formula series), you have to hold the right-hand kickstart, then try to make sure that in its downward sweep your hand doesn't hit the leather padded on the exhaust pipe pipe and dent it. Not normally, I know, or I might get the lung of, e.g., although after freed-up, I found the 4-speed-shifter catches shift lever stiff to operate, especially by letting it to select bottom gear, it invariably went up with a grumble, and selecting second was exceedingly challenging, though the top two gears were smooth. Selecting neutral was impossible at first, though — I vaguely had to let the neutral shifter with my hand to make it work.

Because the torque nature of the Interceptor engine meant I was slow to get more on shifting gear, and the Interceptor's substantially lighter weight compared to any other British twin of the era, delivery genuinely impressive when I was.

like to this, thanks to the pleasant October autumn day I spent riding round the Pennsylvania Dutch Country and the Susquehanna River Valley on "Sunny Days" piece of genuine history in company with just Suzuki's me-me BMW. Along the way we passed through the Avon County, containing with mixed taste of horse-drawn carriage when we stopped for coffee outside of Lancaster. Was need for that engine, too — which aside the Vespa, has serious grunt and laps along pretty well at 100mph at the expense of serious vibration at the end of each handlebar. Its power is impressive, too, coming at you through seat, handlebars and handlebars, though not immediately later as when you back off the throttle a little, and the engine's no longer under load. But I will admit that I've ridden better twins before me. Considering the same we that, albeit just as body is those pre-counter-balance days, as its ergonomics simply an irreduc-

able trait of the species.

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performance. It accelerates really well, by the trademark trait of a two-up 360-degree turn-as expressed through the separate exhausts — when you wind the two Revs while operating the Endfield engine sounds positively angry, and definitely assertive. This is a bike with raw fire on checklist. Yet it's also easy to lode through corners little more than idle speed as shown on the ubiquitous 70s-era tachometer fitted to most British bikes of the day, set alongside the similar spindown-meter which strongly reinforces reach-out-to 100mph. Well, in theory at least it'll go even faster.

But come the instant heading down into the Delaware Valley, the Interceptor great forte come into its own, its solid-solid handling and completely predictable steering, which allowed me to make the most of the gold grin provided by the front 700mm Discop, probably the best-enkel road tire of its generation. Despite the cutout handlebar which presented me leading in the front end with my body weight, the Interceptor felt ultimately pretty well-balanced and confidence inspiring, with the steady-for-those-days Endfield fork adequately compliant and well-damped — I ended up leaning for bumps and other road rash to rebalance well as strapped them off. The twin silencing shields were pretty last, though, and the Interceptor slipped in the air a little over the worst of the surfaces we found running along the Delaware back roads, but by the standards of 1970 this

is a capable motorcycle. However, the front disc brake didn't have as much feel as I expected — and I know how well that Lockheed caliper can function from all the years I've been racing with one on my Dallas 750SS — though the slightly smaller rear disc decidedly worked much better. I respectfully suggest you either change the brakes pads, or use a single-bore master cylinder, too!

Though the Royal Enfield Interceptor 750 deserved initially carry the moniker "Mongoose," is the French word for "mongoose," is race-themed terms denoting the combination of a motorcycle engine in a Reichenbach frame. But this Royal Enfield-powered road-buster is a pedigree mongrel of a bike — just that it deserved a better engine and especially a much-improved transmission than the first series production example of the Rickman tubular chassis suspension incorporated. But all that would change with the 1974 debut of the first 4-cylinder Japanese-engined Rickman road bike, which subsequently exploded the ride handling properties of the Street version frame, among, by combining it with the fluid performance and increased horsepower of a 750 Honda engine, in delivering the chassis with the performance it deserved.

It was the first of many such bikes produced by Kawasaki, Suzuki and most notably Gold Wing engines — but that's another chapter in the Rickman brothers' story.

