Cataloony

The Aspid is engineered and built in Spain, costs £100k and looks like nothing else. **Dan Stevens** straps himself into the Catalan Caterham

PHOTOGRAPHY STUART PRICE

You may not remember the Aspid. Launched at this year's London motor show, its chances of recognition were somewhat dampened by the wearisome parade of wannabe sports car makers that have mostly failed to produce so much as a car we have been able to drive. The dismal saga that was the death of TVR, the grandiose promises of the Barabus (faster than a Veyron) that turned into the pomp and bluster of the Keating (it broke down at its launch and hasn't been seen since) all conspired to dull the Aspid's promise of exceptional performance and astute dynamics.

The figures didn't help, either. How can a company you've never heard of with no ostensible connections to the car industry be capable of producing a 400bhp, 760kg vehicle capable of 0-62mph in 2.8sec? Aren't those numbers just the product of someone's imagination? And of course, it was all made from carbonfibre, de rigeur for any aspiring sports car maker regardless of what it actually costs to make (a lot).

So far, so cynical. Then I saw the Aspid at the motor show, a tiny two-seater that looked like the kind of car Luke Skywalker would drive after he had blown up the Death Star and become a hero. An open-wheeler with retro, Caterham-style proportions but with utterly 21st century style and detailing. It looked like nothing else and it looked, well, bloody fantastic.

Better than that, it seemed to be the real thing, with some solid engineering behind it and a charismatic frontman in the shape of Ignacio Fernandez Rodriguez, who was convinced the car would meet the claims he made for it. He was also very, very proud of the front suspension.

That's because he designed it, or rather his company, IFR Automotive, designed it, like it designed everything else in the car except for the engine and gearbox. And this is where the Aspid parts company with the 'Will they, won't they? Who cares because I've just lost interest' band of pretenders →

'Things are moving very quickly... the wind is making my nose cross over to the other side of my face'

Dan holds on for dear life as he prepares himself for second gear

Everything bar the vents is bespoke; it's a tremendous achievement

← because it has been engineered by a team of automotive engineers. Ignacio is ex-Mitsubishi world rally team and Prodrive, for example. His top engineer talks me through how they designed the car using digital prototyping to create and test an entire vehicle before they built so much as one brake disc. I lose the complexity of the maths, but this is just how global car makers develop cars. There are no scribbles on the back of cigarette packets here.

The suspension and the whole front hub/brake structure is a perfect example of the way the Aspid has been created. The suspension arms are beautifully crafted alloy spars, rose-jointed where they connect to each other and the hubs. The double-disc brakes, with their fretwork of cut-out slots to save weight and improve cooling, look like something lifted from a lightweight mountain bike. The whole structure is bespoke, and designed, developed and made by IFR specifically for the car.

The only parts-bin lifts in the cabin are the air vents (Alfa Romeo) because everything else, from the steering wheel to the touch screen, has been designed and developed by IFR. You will not find the indicator stalks from a Fiesta in here.

They even have an electronics lab upstairs where they wrote the Aspid's software, built the info screens and put together the car's wiring loom and all of its hardware. It is like the development of a car from a major manufacturer in miniature, but with a very full-size five years to get it on the road. And now I'm going to drive it on the Catalan mountain roads where it was developed.

There is every chance the Aspid is going to be hard work, with the 400bhp from its supercharged Honda Civic Type-R four-cylinder all going to the rear wheels. It weighs just 750kg and has a power-to-weight ratio of 526bhp per tonne. It promises to be shatteringly quick and utterly impossible in equal measure.

But Ignacio is adamant that it isn't an easy car to unsettle, a point he reinforces by twirling the Aspid around a roundabout, deliberately backing off the throttle and then jabbing it open. The car doesn't want to come unstuck and what little twitchiness there is comes under control easily.

So now it's my turn. Press a small silver button (the door locks are tiny electrical switches designed and built by IFR to save weight and space) and the door pops open and hinges upward. You climb into the Aspid (high sills, like an Elise) and slot your legs into the narrow, long footwells that have the (adjustable) pedals somewhere at the end. The seats are thin and hard but once you're in it's not uncomfortable.

And contrary to expectations, it stays that way. Instead of thumping and crashing over speed bumps, it comes very close to gliding over them. It does not tramline or twitch or fidget, despite the aggressive, →

'If you like your extreme performance two-seater with a dose of civility, the Aspid's your car'

Aspid's ride and handling down to Ignacio's dedication

Production car will have better weather protection

Honda VTEC puts out 400bhp at 8600rpm

Thin seats are actually amazingly comfy

THE LIGHTER SIDE OF LIFE

		IFR ASPID SUPERSPORT	CATERHAM SUPERLIGHT 500
VITALS	Price	£99,000 (approx)	£36,995
	0-62mph	2.8sec	2.8sec
	Top speed	155mph	150mph
	Economy	55.1mpg (est)	28mpg (est)
	CO_2 emissions	120g/km (est)	na
	Kerb weight	760kg	506kg
ENGINE	Engine layout	4 cyls, 1997cc Honda VTEC, supercharged, petrol	4 cyls, 1999cc, Ford Duratec, petrol
	Installation	Front, longitudinal, rear-wheel drive	Front, longitudinal, rear-wheel drive
	Power	400bhp at 8600rpm	263bhp at 8500rpm
	Torque	240lb ft at 7800rpm	177lb ft at 7200rpm
	Power to weight	526bhp per tonne	520bhp per tonne
	Specific output	200bhp per litre	131bhp per litre
	Compression ratio	11.0:1	11.75:1
	Gearbox	6-spd manual	6-spd manual
DIMENSIONS	Length	3750mm	3100mm
	Width	1870mm	1575mm
	Height	1160mm	990mm
	Wheelbase	2150mm	2225mm
	Fuel tank	47 litres	36 litres
	Real-world range	570 miles (est)	222 miles (est)
	Boot	100 litres	na
AT EACH CORNER	Front suspension	Double aluminium wishbone, rose-jointed, inboard dampers	Adjustable double wishbone with anti-roll bar, aero wishbones
	Rear suspension	Double aluminium wishbone, rose-jointed, inboard dampers	de Dion axle located by lower A-frame and Watts linkage
	Brakes	320mm ventilated double discs (f), 268mm ventilated double discs (r)	254mm ventilated discs (f), 230mm discs (r)
	Wheels	7.5Jx17 (f) 8.0Jx17 (r)	13in alloy
	Tyres	205/40 ZR 17 (f), 255/40 ZR 17 (r)	175/55 13v (f), 205/55 13v (r)

SPAIN: SUPERCAR CENTRAL

What is it with the Spanish and madcap open-wheeled sports cars at the moment? The Tramontana is, if anything, even more extreme than the Aspid, with its in-line seats and exposed rear-mounted engine, although some of its principles are similar. It, too, uses complex self-developed electronics to cut the component count and weight.

But it's heavier (1250kg), slower (0-62mph is covered in 3.7 seconds) and undoubtedly more complicated. The engine is a mid-mounted twin-turbo 5.5-litre V12 with 550bhp and 663lb ft, but you can increase output to 720bhp and 678lb ft by flicking a switch in the cabin (which has '720hp' written on it). Like the Aspid, it is undoubtedly a proper and properly engineered car built by a small engineering company with high standards.

← barely legal tyres. It has immensely impressive damping, a level of achievement created by years of obsessive refinement that has created a radical two-seater that is shaping up to be the kind of car you could nip out to the shops in.

But I'm not going to the shops. I am going to click the gearlever into second and then nail the throttle because this is a supercharged 400bhp version of that Honda engine that really gets going above 7000rpm and will rev to 9000rpm. By the time the needle gets to the end of the rev counter things are moving very quickly indeed, it's noisy (really noisy), the wind is making my nose cross over to the other side of my face and I've run out of road. So I have to brake, quickly, and the car sheds speed like someone's lassoed it, down to 30km/h. Everything looks normal again.

Going quickly in the Aspid is like piloting some mad, tiny jet aircraft that flies three feet off the ground. The steering is more fluid and less reactive than, say, a Caterham's, but that does at least mean you can drive it through a town without having to constantly fight the wheel. As with any high-revving Honda engine, you need to wring the life out of it to get the full power and any of the torque, but because the Aspid is so light this is much less noticeable than in a Civic.

But can such a car justify its existence today? Does the world need another high-performance sports car that exists just to deliver entertainment? The Aspid isn't going to provide an answer to that question because that's isn't why it exists. In fact, the car isn't really the reason that IFR Automotive exists because the car is a demonstrator for the company's abilities; it is a means to an end. "You have to go on the road to demonstrate the technology, apply torque to the rear wheels, try it all out," says Ignacio. That's why he built a car.

The end, as it turns out, is to develop new technology that cuts weight and size. The Aspid's all-alloy space frame weighs 55kg. The entire body, with glass, weighs 22kg. All the locks and mechanisms tip the scales at 13kg. The wiring harness weighs a third of a normal harness and all of the electrical components weigh 800g, less than a bag of sugar. And this is a car that has Bluetooth, wi-fi, USB ports, slots for memory cards so you can load photos and music on the hard drive and, by the time they've finished fettling it, a decent level of weather protection. Where a Caterham has a canvas top and flappy doors, the Aspid has proper doors with real seals. If you like your extreme performance two-seater with a dose of civility, the Aspid's your car.

It isn't just light, either. The car's frame is immensely strong (Ignacio claims it's the only car to meet FIA and European road car safety regulations), made stronger by the addition of an alloy honeycomb infill. And there is even the possibility that it could emit 120g/km of CO_2 when it gets rated.

The Aspid is also a product of Ignacio's determination. He hasn't had a holiday for five years and regularly does all-night sessions in the workshop, sorting out the last bugs in the car's make-up. He is fully aware that the car isn't perfect yet and is determined to improve the fit and finish of the interior, which on this car (the first prototype and the only one in existence) is pretty good but needs neatening up for production. For despite the technology demonstrator status, IFR is going to build the Aspid. It has started four new cars (two of which will be right-hand drive) to fulfil some of the 104 expressions of interest from showgoers at London back in June.

The car is eye-wateringly expensive, though; at around €120,000 (£99,000) the Aspid is up against some exceptionally talented big-name competition and there is every possibility that the car could sink without a trace. I hope it doesn't, because it is a fine and intelligently engineered machine, but selling very expensive cars at the moment is not easy, regardless of how clever they are. A