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WHEN SWEDEN WENT DUTCH

Volvo's historic 400 Series misfits aimed for the stars but fell rather short - despite excellent credentials

Words **Claes Lutton** Photography **Stephen Harper**, Volvo

If we told you a Lotus-fettled, Porsche-tuned range of performance cars existed hitherto unexplored by the casual enthusiast, would you be interested? There's a coupé, saloon and hatchback; circa £8k would buy the best in the country; their forced induction engines are among the strongest of the era; rear suspension is a dead ringer for the Alfesud.

No clearer? Two decades of obscurity, be gone: welcome, ladies and gentlemen, to the Volvo 400 Series Turbos. Swedish designed by way of a Dutch subsidiary. Yes, the 440, 460 and 480 Turbos deserve their time in the spotlight as the missing link between Volvo's storied rear-wheel-drive models of old and the 850.

While the former was judged harshly, the latter cemented the firm as a producer of front-wheel drive performance icons; cars that transformed Volvo's image.

Once known as Project Galaxy, the 400 Series was Volvo's front-drive rite of passage, divided into three phases: G13 (480), G15 (440) and G14 (460). A nearly-but-not-quite replacement for the rear-wheel-drive 300 range, currently enjoying an unlikely renaissance as the budget drift car du jour, the new model was seen by Gothenburg in the same ambitious light as Rover's R8 400.

Lower models would offer a compact premium alternative to the Sierras, Passats and Cavaliers; lucrative if sold in enough numbers with the cachet of an upmarket badge on the nose to justify a higher asking price. Most ambitious were the Turbo models, pitched directly at BMW's 318i E30 and Mercedes Benz 190E 2.0-litre - but ambition would be the undoing of the 400 Series.

First things first - the 1986 480 coupé. It's hard to about the 440 hatchback and 460 saloon that followed without discussing the 480 first; mechanically identical, the later two cars are forever in its shadow.

Normally aspirated 480s (first carburettor-fed, then

fuel-injected) used a 1.7-litre Renault engine adopted as part of a joint technology venture; both firms had worked together in the past through the Peugeot Renault Volvo (PRV) V6 project and via Volvo's acquisition of DAF, which built Renault power plants under licence.

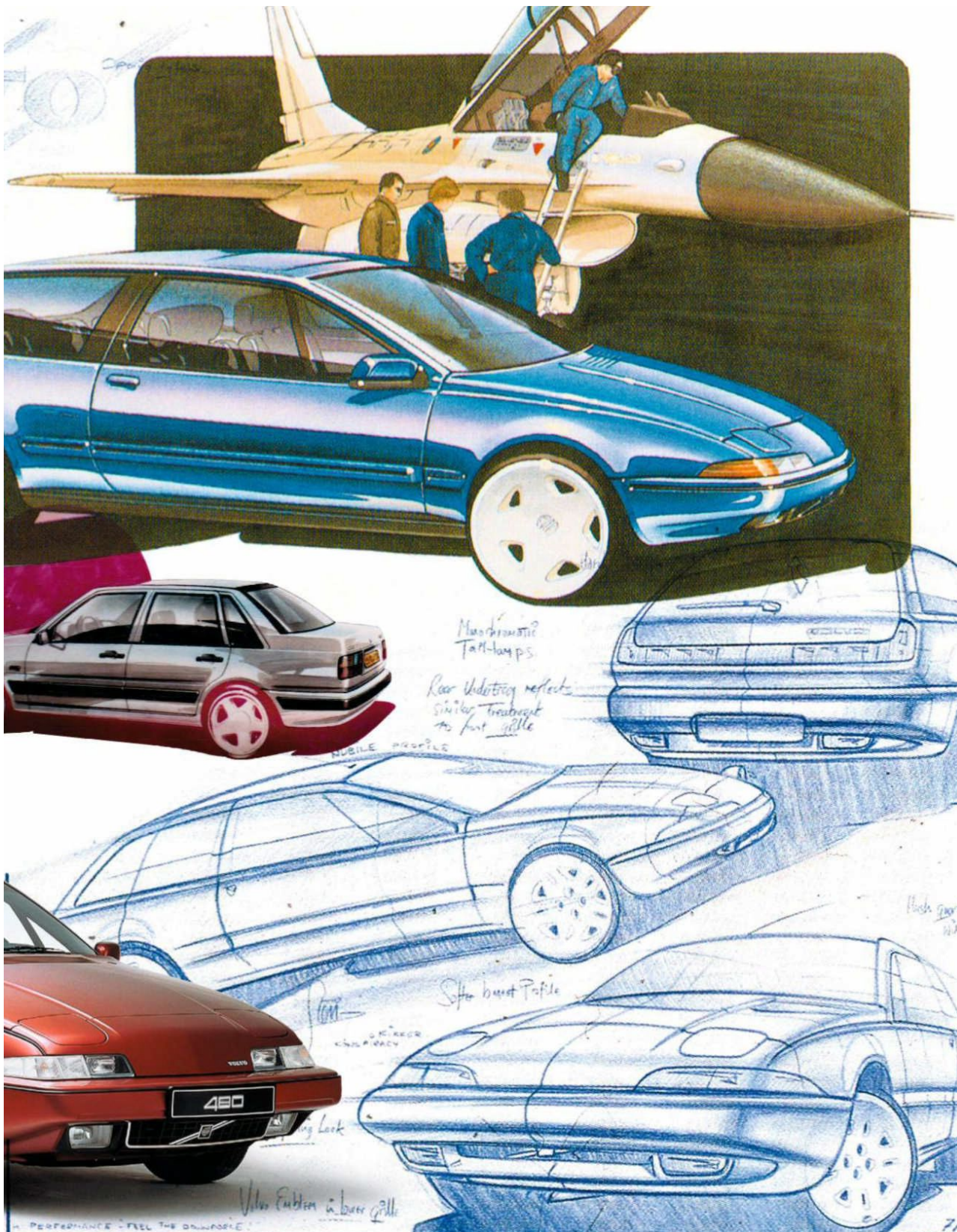
The 480 had a difficult birth. Tasked with spearheading a small executive coupé marketing drive into the US, it never made it, stymied by poor customer clinic results, a weakened dollar and concerns from US management that it would appear dated when finally put on sale.

In short, its difficult upbringing showed - one which placed Volvo's Dutch styling studio at loggerheads with its design chief and board back in Sweden. As poster child for the 400 Series range, the 480 attempted to marry front-wheel drive engineering with advanced electronics, hubristic pricing and a retooled factory used

Volvo 440 was aimed at Mercedes-Benz 190E and BMW 3 Series buyers.

The finished product, as diluted by Sweden.







Convertible 480 sadly never made production.

to producing the straightforward 340 and 360. With its pop-up headlights, shooting brake profile and glass tailgate, it cut a distinctive dash – one which, for quality control issues, early adopters would probably prefer to forget.

While Volvo proudly declared its Central Electronic Module (CEM) driven Electronic Information Centre to

The Dutch team and their 480.



be a European automotive first for digital measurement of all 'time based functions' (including fuel level, range and vital fluid temperatures), in practice it was a disaster.

Circuit board tracks cracked and froze their controls; interior quality was poor; leaks, especially from the 480's rear light clusters, were legion. The trade nicknamed the 'ES' trim level as 'En Suite' as a result. CEM-controlled systems were employed in other Volvo models, including the S and V40, with rather more success. But there's a first time for everything – like a Volvo that broke down. The motor trade did not forgive the 400 Series easily.

Although the 480 was cast against type for its maker, its lineage was easy to see. Shooting brake styling recalled the 1800ES estate – but the homage was completed in Holland, not Sweden. The Dutch team beat proposals from Bertone, Coggiola and design chief Jan Wilsgaard's in-house team at Volvo Sweden.

It was board management and Wilsgaard's influence that diluted the wider 400 Series Turbo's potential; the latter abhorred fast cars and became incensed that his design bible, Volvo's so-called 'Blue Book', was ignored by its young Dutch satellite. Headed by native Rob Koch, Volvo Car BV's febrile styling team soon took on a pair of



Jan Wilsgaard didn't approve of the Dutch styling direction.

The Volvo 460 prototype – note the blacked-out grille.



'IT WAS A CASE OF TICKING BOXES TO KEEP THEM HAPPY'

400 Series stylist Stephen Harper explains how the car bucked convention

Was the 400 Series a radical step for Volvo?

It was one of its first international collaborations. Styling and design was done between Swedish and Dutch teams, while much of the engineering work was done by International Automotive Design (IAD) in Worthing.

How did you end up on the 400 Series project?

Rover designer David Bache was consultant to Volvo Car BV (Holland) and suggested me. I'd done a lot of work with Austin Rover (nee British Leyland) up to that point.

What did Volvo want the 400 Series to be?

A small range to carry on the job started by the 300. Volvo wanted to retain its small car customers and fight the compact executive cars from BMW and Mercedes-Benz.

The 480 was quite a stylistic departure.

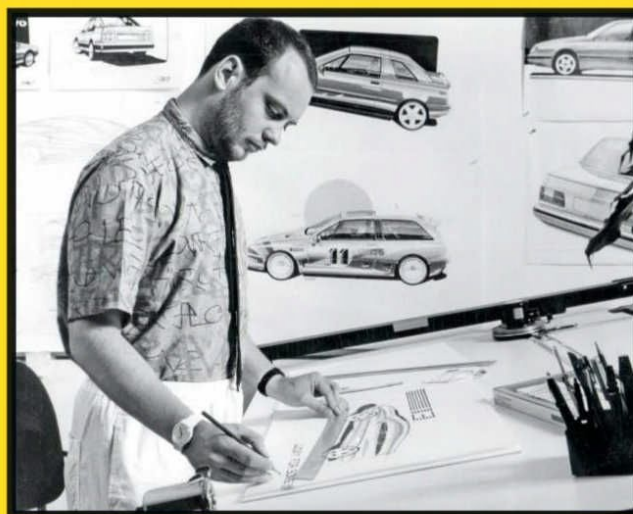
It was more a creative

interpretation of design chief Jan Wilsaard's so-called 'Blue Book', which laid out – more or less to the exact letter – what a Volvo should look like.

If you look at it, all the graphical elements are there. It's rectangular, it has square headlights, and there's a Volvo grille with an iconic 'diagonal' – of sorts. We had to apply Wilsaard's requirements on to a smaller floorpan than Volvo had ever made before; it was a case of ticking boxes to keep him happy.

How so?

For example, the 480's under-bumper grille came about by having to meet one of these provisos. The Volvo logo set in the middle of a diagonal score line (traditionally bracing for Volvo's grille shell) was crucial to how a Wilsaard Volvo looked. I eventually resolved the issue (one of the first things I did in Helmand, Volvo Car BV's headquarters) by taking inspiration from a Ferrari I saw on the autobahn over the German border.



Stephen Harper had to fight Volvo styling convention to get the 480 fully formed.

How serious was Volvo about taking the 480 to the United States?

Very – but market conditions persuaded them otherwise. There was consideration given to federalising the 440, too – I mocked up a 'big bumper' variant. Its large 200s and 400s were selling well. Volvo was secure in the US. There was no need to downsize.

What about the 460?

It came late in the day – almost as an afterthought. Volvo didn't want its Dutch small cars cannibalising 240, 740 and 760

saloon and estate sales. If you take a brand downmarket, it reflects back on the roles of its larger vehicles.

A case of Volvo Car BV 'knowing its place'?

Yes – it was the small car division. Large saloons and estates were the sacred Swedish cash cow. That's why there was no G16 400 Series estate – and why a saloon 400 wasn't on the table until 1986. By then, the 480 and 440 were well advanced; the 460 came so late that work on G2 – the Galaxy model that later became 850 – was in progress.

Coventry University graduates, Chris Johnson and Stephen Harper.

While Johnson (and future Volvo Design vice president Peter Horbury) finished off the interior modelling – now prefixed with an 'E' for Europe, their new intended market – Stephen Harper pitched an ambitious 480 convertible to maximise the model's sales appeal.

Wilsaard also insisted a lower bumper grille be grafted under the 480's nose to assure its identity; the later 440 hatchback and 460 saloon (released in 1989 and 1990 respectively) both conformed to 700 Series lines, with oblong headlights and grilles. The 480, let alone a 480 Convertible, didn't look like a Volvo and wouldn't – as far as Wilsaard was concerned – perform like one if rolled.

Losing its reinforced roof structure in favour of a soft top and roll-over hoop just wasn't enough to appease the design chief, so the 480 convertible never saw production. Several were built, one of which survives today in the Volvo Museum in Gothenburg.

Further back in the story, when US sales were a possibility, side reflector marker lamps were integrated



Harper's take on the Volvo 460's snout.

into the 480's design from the beginning; they stayed until production ended in 1996.

Turbocharging was also essential for the US, and played nicely into the European role of fighting German stolidity with Swedish performance. Catalysing the 480's Renault F Type engine to Federal standards (especially those required by California and later by European

legislators) sapped performance, but turbocharging (on Volvo's terms) restored the balance of power.

Alas, Renault wanted no part in boosting its 1.7-litre F Type: it saw no high-performance potential in the unit beyond the blow-through carb used to great effect in the 5, 9 and 11 Turbo.

It was at this point that Porsche got involved, redesigning the 1721cc Renault unit for its new role in life. As per Volvo's instructions, the transformation ran deep: not to be confused with its older pushrod engines, the B18FTM engine (and subsequent catalysed versions for Europe) was massively overbuilt and in a relaxed state of tune. It was specified for torque rather than headline power figures. So as not to frighten away Volvo



Original design didn't have a hoop.



traditionalists, the 400 Series Turbo cars ended up with a split personality, their sporting edges filed down.

Volvo valued 50-70mph overtaking muscle over the 0-60mph dash, touting the former as a means of active safety. It wanted the B18 to be durable, so had Porsche alter the F Type's cylinder head, fit oil squirters under each piston and back the whole lot up with a supplemental oil pump that ran after the engine was switched off. Overkill for a 120bhp engine, wouldn't you say? That was the detuned dyno figure: development lumps were easily achieving 160bhp at Porsche without any undue stress.

Tuners – and Renault enthusiasts – quickly turned Volvo's mechanical caution to their advantage. Dutch electronic engineer Rich Pruett turned his expertise to the 400's Bosch engine management; produced in a limited production run, the so-called 'Richmod' chips restored much of the power removed in the boardroom.

Bedecked by their early reputation – much of which was corrected in 1994's MkII 440 and 460 facelift – secondhand prices fell. As values of the Renault 5 GT Turbo went the opposite way, a rotten 440, 460 or 480 Turbo represented the best way to future proof your 5: unlike the hellishly stretched, carb-fed 1.4-litre, Volvo's B18 had capacity to spare, was fuel injected and bolted straight into the engine bay. The 5 modifiers have since



Roll-over hoop wasn't enough for Jan Wilsgaard.

Glass tailgate was inspired by P1800.

moved on but rust, poor spares availability and organ harvesting took its toll on 400 Series Turbo numbers.

More 480 Turbos survive than 440s or 460s, mainly down to their appearance. A fixed headlight update was planned, but never released. The hatchback 440 Turbo, released in 1987, was the closest any 400 series got to GTI baiting; its blacked-out grille and tailgate spoiler made its intentions clear. As for an estate, beyond a mixed-construction square rear bootlid conversion by tuning firm ACT, the 400 series wagon joined Stephen Harper's convertible on the cutting room floor.

Meant to appeal to marque aficionados, the 460 Turbo, first seen in 1990, makes for an unlikely sleeper; lacking much of the addenda of its siblings bar a foglight front bumper and shallow side skirts, its kerbweight is close to the glass-heavy 480 and bantam weight 440 Turbo.

Because Volvo was unfamiliar with FWD, its baby was tended to by Lotus Engineering. Although equal-length driveshafts and deformable kidney-shaped bushes were meant to keep the steering uncorrupted, 400 Series Turbos got a name for axle-tramping torque steer. Blame Volvo management for softening up the ride/handling balance; despite its dimensions, the smallest Volvo was meant to drive like its Swedish brethren – so the fastest models used the same gas dampers and comparable spring rates to lesser 400s. Good modern tyres quell most of the drama – and specialists like Classic Swede sell uprated suspension kits to take out the slop.

There's a well-qualified performance car waiting to be unleashed in the Volvo 400 Series Turbo range; whichever mark you track down, there's a modern classic waiting to be discovered. **MC**

