


specialist


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THE EXTRA MILE

Whether it's a tweak or a complete rebuild your after, CTM is always willing to go that bit further to ensure the best for your engine. We get technical with the Dagenham cause.



THE GRAFTER: Dean Mahoney's been with CTM for the past 13 years and especially loves getting stuck into cylinder heads — although will fettle anything that comes through the door!



THE BOSS: Charlie Mahoney set up CTM Performance Engineering back in 1980. Now based in Dagenham, Essex, the company has earned a reputation as a quality engine builder.

WORKSHOP MANAGER: Nick Tredini makes sure that CTM customers get exactly the engine they want. He's also in charge of porting, polishing and boring.

THE QUEST TO GET MORE POWER from your car's engine could quite easily end with a flick through a tuning catalogue for a set of carbs and a hot, 'lumpy' cam. However, if you really want to get the most out of an engine you need to track down one of the (sadly) ever-decreasing number of proper engine builders, who can apply old-school engineering techniques. In other words the types who use lathes and drills, rather than laptops and chips.

One of those traditional engine builders is CTM Performance Engineering, based in the traditional Ford heartland of Dagenham in Essex. Charlie Mahoney, the boss, started CTM in 1980, after five years building engines at nearby Burton Power.

Today Charlie's still applying his skills to all sorts of engine graft, including cylinder head work, reboring, crack testing and balancing, and moved the business to its current location a year ago. Now, though, Charlie has a team of five, including son Dean and freelance engineering fabricator Jim Clinch, who's responsible, among other things, for building plenums. →



This is no quick bolt-on operation — CTM employs proper engineering skill with engine builder experience.

When he first started working on engines Charlie had a rare Consul (the Granada version) fitted with a 2-litre V4. Undeterred by the baby V's reputation for being rough, feeble and juicy, Charlie bored it out and fitted a bigger carb for some extra poke. Sounds like just the bloke to trust your Ford engine with then.

"I'm a real engine man, and I love modifying cylinder heads, and what's more all the blokes who work here are good hands-on engineers," Charlie says. While not exclusively working on Ford engines, the blue oval's products are the most popular with the CTM team. Whether they're sidevalves, Kents, Pintos, Zetecs

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or Cossies, Charlie and his team are pleased to get working.

"The Pinto is still popular, although two years ago the number we were modifying dipped: now it's increasing again," Charlie says. What's more, a Pinto lump is quite capable of producing plenty of horsepower — CTM put together the 238 bhp unit fitted in Andy Harris' stonkingly quick Escort.

CTM's reputation for high-quality machining means the company is sending engines as far as Australia and the US, while regular orders also arrive from Ireland, Belgium and Germany.

During Classic Ford's visit CTM had an array of engines in, including a Crossflow for an Escort van, a couple of Zetecs, a BDA and a four-wheel-drive Cossie lump. "Over the years we've secured lots of work through word-of-mouth. No job's too big or small — I've even fitted inserts to a 27-litre Merlin engine, so you could say I've seen it all," Charlie says.

He's keen for customers to have their engine balanced once all the work's been completed, otherwise, at some point across the power band, there's a risk of resonance. In addition, traditional milling and boring work is no problem for CTM.



Right: CTM's attention to detail is huge, making sure all the basics are right before they're built on.



Left: Proper 'old-school' engineering techniques are employed from head work to engine assembly.



As well as the classic eight-valve Ford four-pots, CTM also works on modern 16-valve units.



Every one of the five-strong CTM team is a hands-on engineer and has real passion for building quality engines — they were responsible for putting together Andy Harris' famous 238 bhp Pinto!

Charlie admits many so-called builders will merely order a shed-load of tuning parts to bolt on to an engine, but don't tear the whole thing down so that the basics are fully sorted.

Nick Tredini, the workshop manager, looks after cylinder head work alongside Charlie's son Dean and Barry Hisbott. Nick looks after porting, polishing and boring, and he's keen for the company's customers to get exactly the engine they want. "Many people these days say they can assemble an engine, but to do it properly takes time. What's more, we can happily keep busy with smaller jobs, such as removing studs," Nick says.

Freelance fabricator Jim Clinch (whose name's on the CTM signs as James Motorsport), looks after all the fabrication work. "I handle fabrication and machining, as well as engine building, and I went freelance as I didn't want to work in a big company," Jim says.

Having worked at Ford and Ford-owner component company Visteon, Jim, who has a degree in mechanical engineering and is currently building a highly-potent Lotus 7 replica, is more at home making up plenums and heat shields. But which engine does he currently rate as the best? "My favourite is the 16-valve Zetec, because it's strong and so simple," he says.

Meanwhile Dean Mahoney, who's been working with his dad for 13 years now, likes getting stuck into cylinder head work, but he's keen to turn his hand to any work required. "We recently had a few Twin Cams in — we tend to get a sudden rush on with a particular engine type, where one arrives, and before you know it a load come in," he says.

Dean likes working on all Ford engines — apart from small-block V8s, which are a pain to port — and he rates the Pinto, saying it's a strong engine. Meanwhile,

the Zetec, which is getting even more popular, can throw out up to 400 bhp. "I like working on Pintos and Crossflows — it's the satisfaction of building a good cylinder head, and that satisfaction just tugs you along. I enjoy my work, and I'll fettle anything here: I like the positive feedback we get from our customers, and knowing that they're enjoying driving their cars," Dean says.

Both Dean and Nick like to meet potential customers, and find out what they expect from their engines. "All our engines are built to the customer's requirements — we don't keep any on the shelf. We like to find out just what they want, so that they don't have to come back a few months later wanting a further upgrade: it's best to get it right the first time," Nick says.

What's more, if you fancy putting a Vauxhall red top in your Ford, CTM can work on that too, and the company will also lighten flywheels. As Charlie says, no job's too big or too small for them to handle. So, with plenty of skill, knowledge and a passion for engine building, a trip to CTM might be the best way to give your Ford a proper performance poke.

CTM keep nothing 'on the shelf'; a customer tells them exactly what they want and the guys then build it to order.



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