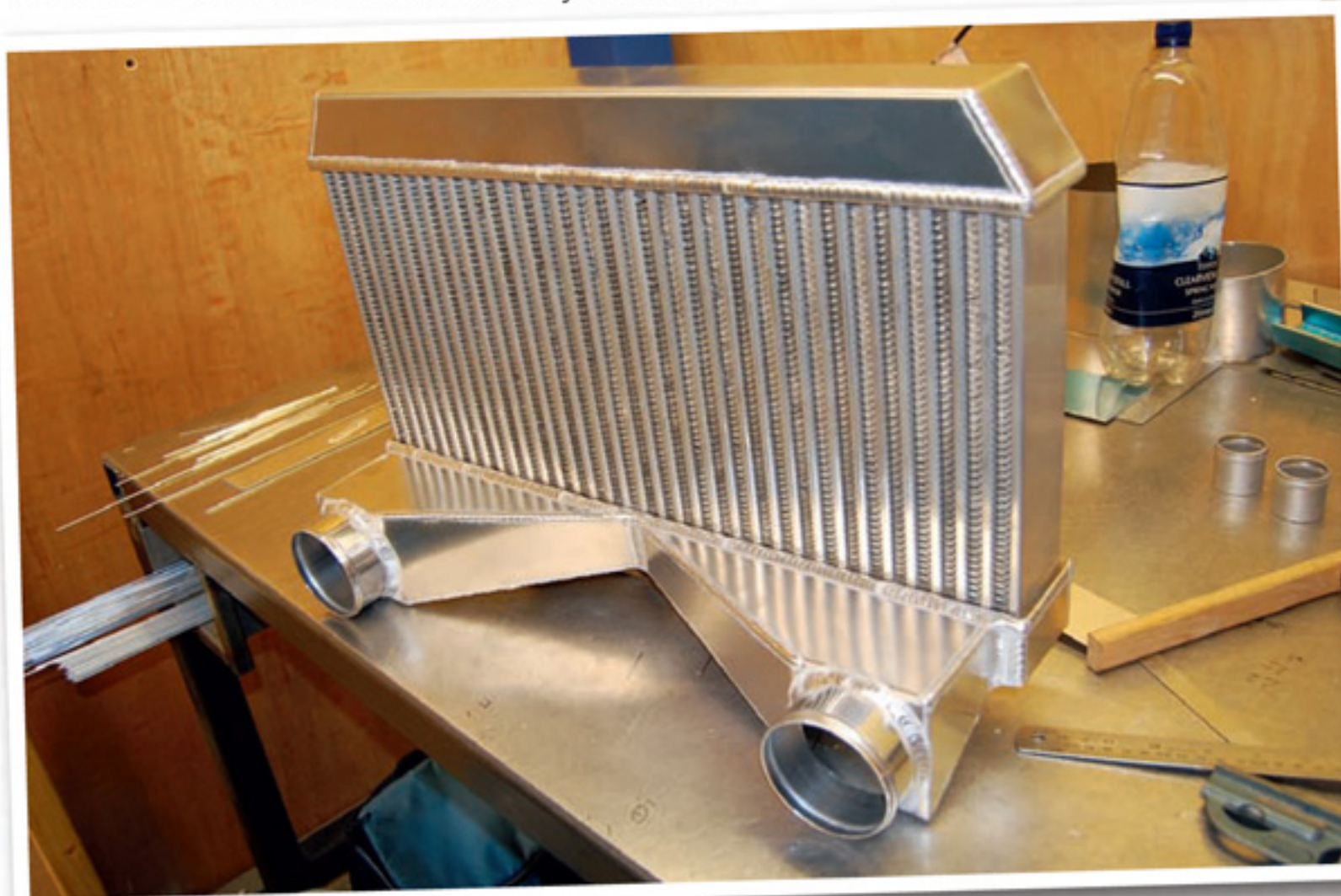




THOR RACING – TA40 TOYOTA CELICA ST

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Take a look at this magnificent piece of craftsmanship! What you see here is one reverse-engineered bespoke radiator and intercooler combination, lovingly created by the artisans at Forge Motorsport from the CAD drawings seen here last issue.

As we arrived at Thor Racing for this month's update, Pete and his team were tearing into the Forge packaging like chocoholics to a box of Milk Tray. Nobody was expecting anything less than perfection from this solution but even Thor's grizzled workshop veterans were impressed enough for a few appreciative 'oohs' and 'aaahs' as it was revealed. It really is that nice.

Not only did the finished parts look precisely like the drawings but, as one would expect from these two engineering-led firms, it simply dropped into place as

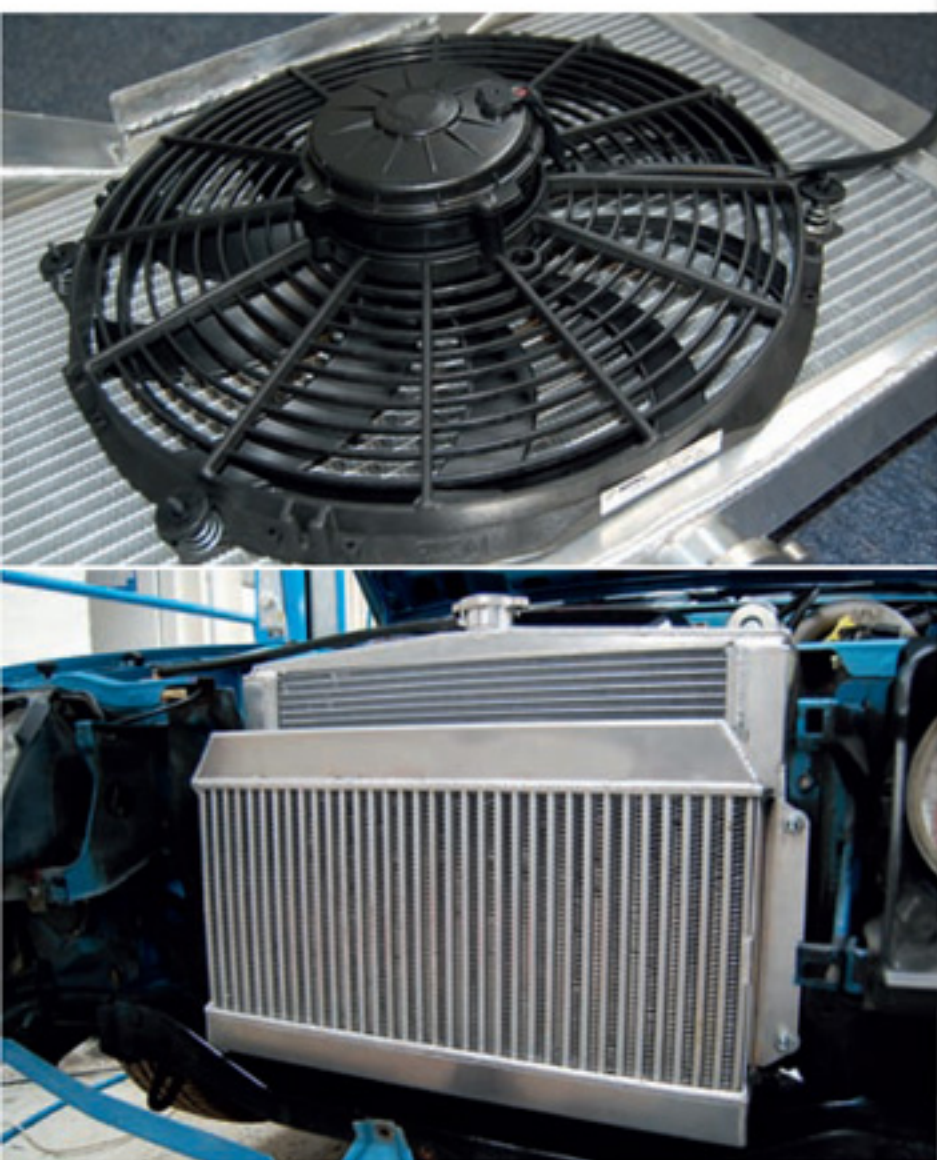
the holes lined up with the factory sheet metal like Toyota had planned it that way. With four bolts each, both units were in place in minutes. This design came about because Thor was adamant that a solution could be found that wouldn't resort to chopping the car in any way. So the radiator is shorter but deeper in its core, which allows the intercooler pipework to sit neatly underneath without brutal body surgery.

Not only does the new rad offer more efficiency than the original unit – essential for a motor that could be around 400bhp when finished – it also looks a lot prettier too. The intercooler in front has a large, open core, which is enough to significantly chill the charge but still allows plenty of fresh air through to cool the rad. That said, Pete at Thor had always planned to fit a fan as a

belts and braces measure; and for this he turned to respected manufacturer SPAL. As one of the UK's foremost fan manufacturers since 1959, SPAL products really are made for a project like this, being built to unparalleled motorsport-quality levels. The fitted unit benefits from a waterproof and dustproof motor, and features a fully-balanced fan body. Despite being a genuine race part, it also comes with full finger guarding – always good on a car that spends much of its time in a regular environment. Pete doesn't want inquisitive members of the public losing their digits when having a nose at the installation at shows.

Forge also made and polished the connecting pipework from the 'cooler back into the lump, taking the opportunity





to fabricate a beautiful piston dump valve at the same time. This allows excess charge to vent harmlessly into the atmosphere, augmenting the already impressive soundtrack and stopping the turbo from stalling or slowing down. Plus, like the radiator and intercooler, this looks stunning as well as performing an essential function.

During this final fit, Pete also took the opportunity to go through the mish-mash of engine hoses that have accumulated during the build and replace them all with one homogenous look. The hose that best ticked both form and function boxes was the subtle SamcoSport Classic induction hose. This smart, factory-black number apes a Seventies OEM appearance but is pure race car inside, being able to handle temperatures and pressures that would

soon dissolve the originals. Pete ordered lengths of matching straight hose direct from the Welsh factory and plumbed it all in for a much neater look.

Another small but important bit of housekeeping was a new air filter. The new turbo installation hasn't really left a huge amount of room under the bonnet, so it was imperative to get something that would fit the gap, flow the maximum possible air and, well, look nice too. A quick call to the serial race filteristas at Pipercross was soon followed by a rather nice, custom-size filter being dispatched. It uses triple layer motorsport-spec foam and butts up nicely to the cold air feed from the inner wing, which will hopefully help to offset some of the heat of the turbo.

After a considered bout of tightening and checking all of the various unions and joints,

Pete finally closed the bonnet to reveal the most impressive part of this modification. With the bonnet shut you wouldn't even know it was there. No 'look-at-me' shouty shininess to be seen up front; the slatted angle of the Celica's front grille prevents anything being shown unless you squint directly through from a hedgehog's eye view, that is. To our mind, that's been the ethos of this build throughout: OEM tidiness and subtlety mixed with a sledgehammer kick and exquisite engineering. Just the way we like it.

So what's next? After all this hard fabbing, Pete needs to take a seat... well, a couple actually. Tune in then to find out which perches he chooses!

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