

# Forge

MOTORSPORT

ENGINEERED FOR PERFORMANCE

LITCHFIELD IMPORTS NISSAN GT-R REVIEW

feat. FORGE MOTORSPORT IN

**JAPANESE**  
PERFORMANCE





# POULE

When your day job is running an F1 team, the drive home from the office has to be something pretty special. Litchfield Imports created a 710bhp solution that brings race car power to Her Majesty's highway

Words: Dan Clow Photos: Michael Ward





# Pitter





*Original GT-R seats have been ditched in favour of more supportive Bride bucket recliners, some 40kg lighter*

I'm not exactly complaining about my job. After all, working with and writing about cars for a living is hardly the worst way to pay one's mortgage. But, when you learn of fortunate characters like Gerard Lopez, the new owner of the Renault F1 team, you can't help but feel a slight pang of jealousy – particularly when you see his eclectic choice in cars. Over the years, Mr Lopez has had the good fortune (and good taste) to add every type of automotive delectation to his driveway, with everything from Mustangs to Ferraris passing through his hands. The common denominator in each case was serial *JP* page filler, Litchfield Imports, who were always able to locate a car to his exact wishes.

As a huge fan of the firm's much-vaunted Type 20, and of the Japanese car scene in general, Gerard had long been in discussion with proprietor Iain Litchfield since the firm became the first importer to bring one into the UK back in 2008. This very first car eventually ended up as the latest notch in Mr Lopez's garage doorframe and the seed of a project was born. After chatting about Iain's plans for his own next R35, a plan was well and truly hatched and Litchfield were officially commissioned to build something altogether more special.

Being first out of the starting blocks, Litchfield were in an enviable position with regard to tuning the new R35. Having gleaned a huge amount of data to allow them to develop their performance upgrades, the firm were able to create what you see adorning these pages. The Litchfield GT-R LM700. The combination of months of painstaking development work.

## Power needn't corrupt

Let's have a look at the numbers. They are mightily meaty, with the headline and badge already having told you that in excess of 700 flighty horses are a mere throttle prod away, whilst a tyre-troubling 660lb ft of torque can be delivered at a mere 3200rpm. Sounds like a great recipe for bar-room boasting, but surely that level of power in an everyday road car is going to compromise it? You'd think so, but with huge care and attention taken over component choice and set-up, the end result is something that is as happy travelling to the supermarket car park as it is to the supercar paddock. It's quick, of course. 'Quick' as in the description usually reserved for jet aircraft – or electrons, but that obscures the goal, because the Litchfield team have managed to retain all of the cool, calm character that made the R35 such a competent all-rounder from the outset. So, how did they achieve it?

## 'We knew we were on to a good thing when we saw the WRX-esque turbos at the Tokyo motorshow launch'

Starting from the front of the car, Forge carbon-fibre air boxes, housing suitably huge air filters, direct cold air through beautifully crafted Mines titanium turbo intake pipes. This guarantees a constant supply of cold air, which becomes essential when you see the spec of the turbos that they ultimately feed. Having cut their teeth with bespoke turbos many moons ago with their Subaru conversions, Litchfield were confident that they could create something that would be able to deliver the requisite charge. Iain Litchfield picks up the tale: 'We knew we were on to a good thing when we saw the WRX-esque turbos at the Tokyo motorshow launch. With our Subaru turbo developments, we have tested pretty much every turbo combination that would suit this size of engine – and some of our earlier turbo conversions proved just how similar the turbo sizings were.'

Sitting around the drawing board with long-term turbo partners, Turbo Dynamics, the team settled on two custom versions built around Garrett GT30R cores, working with heavily tested components that were similar to Litchfield's latest











410bhp Subaru Type 20. Despite the GT30's industrial size, intelligent modifications allowed the turbos to spool up extremely quickly with no discernable increase in turbo lag, maintaining an instant throttle response and ensuring a smooth, linear power delivery all the way to the redline.

With longevity in mind, the turbos were specified to ensure they did not need to be pushed hard to produce the 700bhp power target with peak boost being kept sensibly low. This would also help to reduce the tuner's arch enemy – spiralling under-bonnet temperatures, a factor that is especially important within the GTR's tight engine bay. The turbos flow through an enormous Forge intercooler, which helps maintain an optimum intake air temperature, simultaneously eliminating the standard intercooler's restrictions.

Spent gases are efficiently ducted via twin hand-fabricated Milltek down-pipes featuring large collectors to ensure optimum flow. They're TIG welded and massively over-engineered to cope with the engine's new-found prowess. Reliability is a big potential issue on the R35. Not only were all parties concerned keen to protect their hard-won reputations, but as Iain himself succinctly put it, 'Working around the turbo area of the R35 is just so time-consuming. We're big fans of "fit and forget" quality.' The grade of stainless chosen is the ultra-durable

321, meaning that even with a cosseted life, the exhaust will be here long after the car has gone.

The down-pipes mate with a Milltek 'Y' piece before being muted by the tasteful rear silencers. This is possibly one of the most impressive aspects of the build, achieving exceptional gasflow whilst maintaining a sensible noise level. In fact, during their testing process, Milltek were able to ascertain that the new rear silencer could outperform the original by over 37 per cent while increasing the noise level by a mere 2 decibels. Good news for any future track excursions.

With more going in – and more coming out – the standard fuelling system was never going to cope, so a brace of Litchfield's own UK-supplied 920cc injectors, along with upgraded fuel pumps, were added in typical belts and braces fashion

### MOV'IT star

Tuning is a balance, and with so much power on tap, and other modifications in the pipeline, the heavyweights were called in to bring the whole shebang to a halt. Litchfield spec'd the superb German MOV'IT set-up, which has several interesting technical facets. The MOV'IT kit has won many plaudits in the industry, with both front and rear calipers being machined from solid billet blanks to

ensure the best strength and weight possible. The brakes also feature one-piece ceramic discs that offer outrageous, fade-free stopping power. In fact, MOV'IT claim their unique disc brakes offer a 70 per cent performance improvement over the Brembo ceramic brakes fitted to many supercars like Porsche and Ferrari. That's fighting talk right there! The discs also usefully save nearly 5kg of unsprung weight per corner, with the accepted thinking being that this saving increases fivefold once you consider the rotational mass reduction. This new-found weight loss not only aids acceleration but also allows the new suspension to work more effectively. And, as you can imagine, that's also been turned up to '11'.

The LM700 features new suspension software which works with the GTR's cockpit switch, allowing the driver to adjust the ride between Race, Normal and Comfort modes. These offer hugely improved chassis control whilst maintaining a superb OEM-feel ride quality.

The engineering on this car is sublime, but it's easily usurped by the car's arresting good looks. The dramatic styling comes from Japanese GTR institution, Mines. The Mines products are much more than simply style over function – they have also helped save weight and produce more aerodynamic downforce. The beautifully constructed





**'The turbos were specified so they did not need to be pushed hard to reach the 700bhp power target, with peak boost being kept sensibly low'**



bonnet features extra cooling ducts to drag hot air from within the engine bay and the subtly sculptured front lip spoiler has additional ducts to feed cold air to the front brakes. The rear spoiler was designed for Mines by the Japanese company which produces many of the aero parts for the Japanese GT500 race series, so its aerodynamic credentials are unquestionable. Not a bad idea, when you remember that the owner has unlimited wind tunnel access.

The wheels are a classic retro-inspired choice, and a tip of the hat to JDM aficionados. 20in BBS split rims with gold centres and polished out edges not only tick all of the boxes for wheel whores everywhere, but these new hoops also offer a stronger, more lightweight combination compared to the original Rays alloys. However, even with all of that extra poke, the car maintains the Dunlop SP600 tyres that saw the standard GT-R lap the 'Ring in 7mins 27sec. These are more than adequate for the task in hand but it does rather make you wonder just what kind of time this leviathan might post though, doesn't it?

With so much care lavished elsewhere on the car, you'd rightly expect the interior of the GT-R to be similarly impressive. Yet again, here, the Litchfield team pulled out all of the stops, with the heavy original seats being replaced by lightweight figure-hugging Bride bucket seats. These have been retrimmed to match the GT-R's red and black interior and look superb. It's not all aesthetics however; the svelte nature of the new seats on their own reduced the car's overall weight by nearly 40kg!

## Summary

We already love the standard GT-R here at *JP*. But it's fair to say that Litchfield have improved every single aspect of this already sensational model. The car maintains its impeccable manners around town with its mild-mannered engine and quiet exhaust note. However, stab the throttle with a little more enthusiasm and you're treated to the kind of acceleration that will easily disgrace anything from Maranello. The GT-R impresses with a stunning gearbox that seamlessly switches to the next gear with no

let-up in the pace as it piles on the speed. You start to realise that in other 'normal' sports cars the gearchange gives your brain a moment to compute what is happening. Here, you're able to stay focused solely on steering and throttle inputs as the world flies past at warp speed.

As a package, the Litchfield GT-R LM700 is hard to fault. It works visually and dynamically, balancing the best parts of the factory aesthetics with sublime aftermarket parts. From a driving perspective, the balanced and methodical approach to tuning has resulted in a car that can both utterly assault and cosset the senses in equal measure, depending on what you want the car to be at that instant. It's compliant and composed, yet precise and pointable. It has prodigious power, tempered with biblical braking. In short, it's probably the greatest all-rounder I have ever driven. Mr. Lopez may have an awful of of fun whilst he's at work, but having spent a few moments in his daily commuter, I bet he's watching the clock for five o'clock like the rest of us! ●

