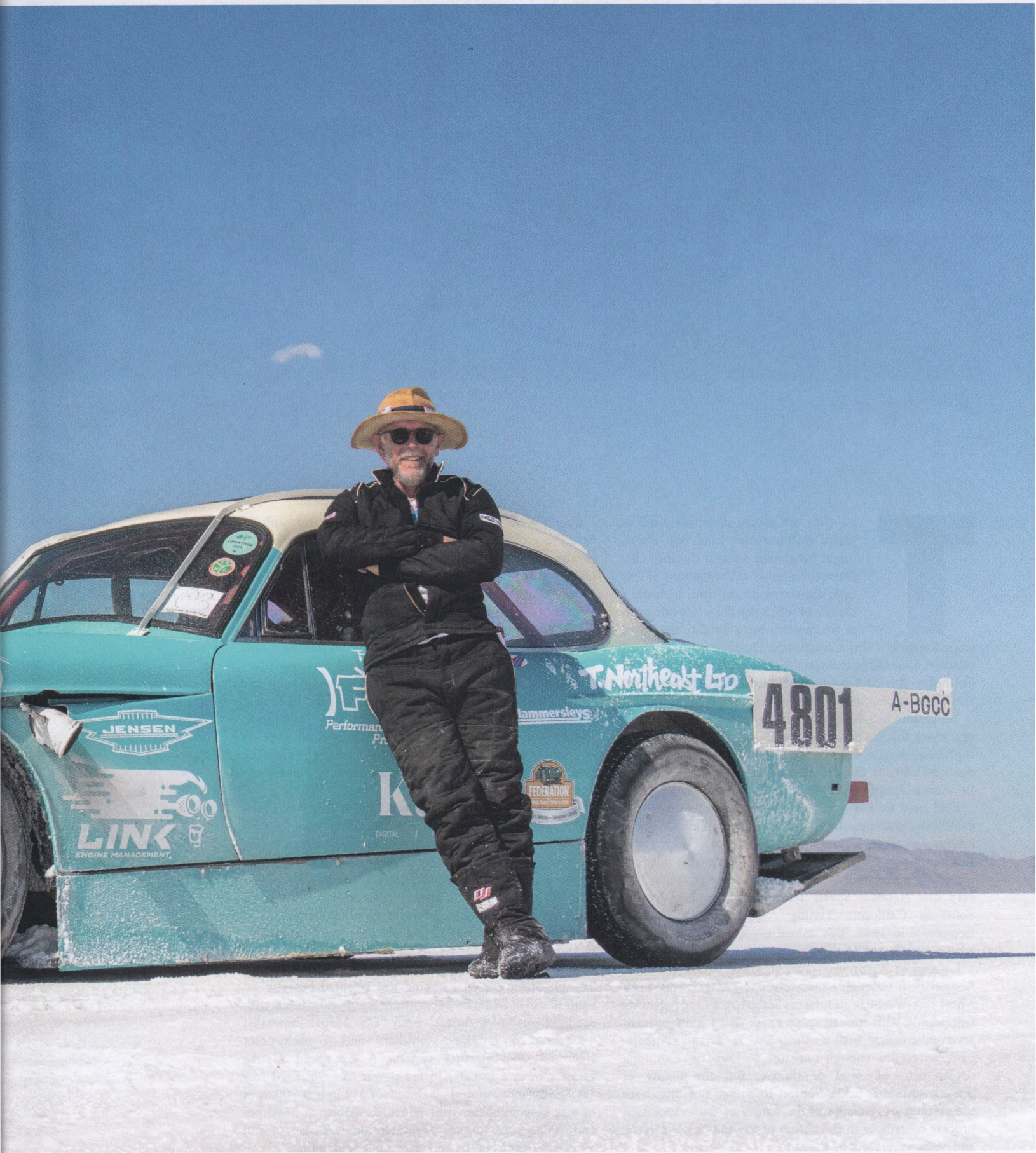


WORLD'S FASTEST JENSEN

*Between West Bromwich and the salt flats of Utah, this 1965 Jensen C-V8 has undergone quite a transformation. **Chris Tarling** meets the brave Brit who took it past 150mph at Bonneville*

Photography Chris Tarling; Jim Leggett







The clear air makes distances hard to judge, without the haze our brains might otherwise use as a distance cue. Mirages shimmer at the margins of this vast, expansive desert, and, beneath a cloudless cobalt sky, the white salt-plain is magnesium-burn bright, the glare unmanageable without sunglasses. Evaporation has caused the crystalline salt to form on the playa surface with a texture like toffee. It is cool to the touch but reflects the sun's heat and intensity mercilessly. The place has a hostile beauty.

Yet despite its inhospitable nature, for almost two weeks every year this is home to a fascinating travelling circus. In the narrow August window when the weather is generally in the racer's favour, this brutal, disorientating place hosts the Bonneville Speed Week.

First used in 1914 for something akin to a car racing exhibition, and sporadically for speed record events in the intervening years, it wasn't until the arrival of John Cobb and his Napier-Railton in the mid-1930s that the salt flats came to be recognised as *the* place for land speed racing. The very first National Speed Trials were organised by the Southern California Timing Association (SCTA) at Bonneville in 1948. This annual event ultimately became what is now Speed Week.

Located in north-west Utah at 4200ft above sea level, Bonneville is uniquely suited to the challenge of making a wheel-driven vehicle go as fast as budget, rules and ingenuity will permit, with enough space to set up an arrow-straight seven-mile course with a surface that is flat and concrete-hard yet retains enough moisture to keep tyres running cooler than on mud or tarmac. But the nature of the salt surface is fickle. Subject to annual flooding, both the amount of rainfall and the nature of the evaporation process contribute to the nature of the sun-baked surface, and no two years will be the same.

Speed Week ran for the 75th time in 2023 and, with 36 hours to go before technical inspection (the equivalent of scrutineering), the event had the potential to be an absolute classic, with dry salt and excellent-quality courses. Then Mother Nature had other ideas and lashed the area with a thunderstorm and heavy rain. The event had been cancelled in 2022 so the relief of all who stayed around was palpable when it went ahead, albeit delayed by several days and on a single shortened course.

Ian Northeast, a motorcycle dealer, former toolmaker and ex-Bloodhound SSC educational ambassador, had made the trip with his team and their self-titled car: 'The World's Fastest Jensen'. In fact, this was their second visit to Bonneville, the first having been in 2018 when the same car achieved 148mph but suffered many running issues (see *Octane* 188, February 2019).

Ian had bought the 1965 Jensen C-V8 for £5000 and used it as a daily driver and sprint racer over seven years. Spurred on by the unexpected death of a close friend, and a timely conversation in his local pub concerning how fast the Jensen might go, in 2016 Ian acted on his desire to take part in Speed Week – and to answer that eternal 'how fast?' question. His notional target was to exceed 200mph.

For that first visit in 2018 the car had received some body modifications to improve its aerodynamic stability, plus significant driveline changes and a raft of safety equipment. The big-block Chrysler engine was retained but stroked from its stock 383ci to 496ci (fully 8.2 litres!), fitted with modified cylinder heads from US Mopar specialist 440Source, a modified camshaft, and a multi-point electronic fuel-injection system. A five-speed Getrag gearbox from a Jaguar XJ6 fed power to a 9in Ford rear axle, giving a theoretical maximum of 212mph at 7000rpm in top. Dynamometer runs returned 603bhp at 5500rpm and 700lb ft of torque. The intention was also to run a turbocharger but time constraints put paid to that.

Above

No, not a scene from some surrealist version of a Jack Vettriano print but the preparation for an attempt at a 200mph Bonneville run in a 1965 Jensen...



The list of modifications in the five years since is extensive and informed by the 2018 experience. The body has been reworked at the front and underneath, now sporting a one-piece bonnet and air-dam that extends forwards and down from the existing Jensen bodywork to meet a prominent steel front splitter. It has no apertures to admit air for engine cooling. A flat underfloor has been added using removable steel frames and panels. It's a heavy solution but weight can be a friend on the salt.

Engine cooling is achieved with an ingenious water/ice system. A 25-gallon water tank is mounted in the boot and feeds the engine through an ice tank mounted in the cabin. The system is designed to work at its highest efficiency when the cooling water is at boiling point: the amount of energy required to vaporise the water is significant, and takes a lot of heat energy from the engine right up to the point where the water runs out – which explains the 25-gallon tank.

Fuel is supplied via two high-pressure 20l/min fuel pumps and two lift pumps. There is now a turbocharger, with an ice-chilled intercooler. Mechanic Bruce Bridges has worked wonders in producing a highly effective ECU map that makes the most of the modifications, so the engine runs beautifully and peak power is now estimated at 'somewhere north of 1000bhp'. Bear in mind that a standard 1965 C-V8 runs a 6.3-litre Chrysler V8, with peak power of 330bhp, capable of 0-60mph in 6.7sec and a maximum speed of 136mph. No sloth in conventional terms, then.

It's worth highlighting that the team experienced a major challenge after the car arrived at Bruce's workshop. Ian knew the engine wasn't running properly before it was shipped and asked Bruce to investigate. Bruce pulled the cylinder heads and found a piston with a broken crown. A donor engine was quickly sourced and rebuilt by Bruce and his buddy Rich Stanford, who transferred all the trick parts in the process.

'There is now a turbocharger with an ice-chilled intercooler. Peak power is somewhere north of 1000bhp'

In 2018 the transmission had proved to be a major Achilles heel so in the car's 2023 guise a Tremec T56 manual transmission is mated to the engine via a ballistic bell-housing and NASCAR clutch package rated for 2000bhp. To round out the list of changes, the front suspension configuration and geometry are of Ian's own design, while the rear now consists of a four-link arrangement and coil-over-dampers. Much of the rest of the modifications are concerned with meeting the SCTA's rigorous safety rules.

Indeed, this year the SCTA inspectors found several minor safety items that had to be dealt with before the car could be signed off, and the team lost running time while searching for the relevant parts. Finally, the Jensen passed its tech inspection with only a day-and-a-half of course running available.

As Ian explains: 'For a car to meet the SCTA safety standards it needs to be built up to a standard that's safe at the record-breaking speed for your class. That's the safety standard for your car, irrespective of whether you have any chance of getting near the record. The record in our class is 260mph and I'm never going to get near that. Breaking 200mph is all we want to do, but the roll-cage and everything

else need to be specified for 260mph. As it stands we are not far away from needing a second parachute.'

A further complication was the expiry of Ian's 150mph+ 'C' licence, meaning he had to complete at least four fresh licence-qualifying runs to be allowed to run beyond 200mph. There are seven categories of licence and all must be qualified for individually and sequentially, from 'E' (simply requiring a current and valid State driver's licence) through 'D', 'C', 'B', 'A', 'AA' and finally 'Unlimited' (300mph and above). The 'C' licence allows speeds up to 174mph.

With only one course available, there were long wait times for competitors. Ian and co got to the start line very early on the Thursday morning yet managed only two runs that day. 'On my first run I was up to 150mph before the first mile marker,' says Ian. 'Then I slowed down to 140mph to get a feel for the course. Really that first run could not have gone better. It was absolutely amazing. The parachute deployed perfectly. I could have gone a lot faster but this was a licensing run. This was the first run the car had made where

nothing broke or went wrong. So we literally packed the 'chute, added fuel and water, and joined the end of the start queue again.' The timing gave a peak speed of 136.876mph.

Ian's second run wasn't quite as trouble-free. 'I think I got it into my head that I had to try and get it to 175mph because this was my next licensing run. As a result I was very aggressive with the car, probably more than I should have been. About a mile-and-a-half into the run there was some damage to the track. As the car hit it I felt the rear end break free and start to drift. In hindsight I'm sure the car didn't drift as much as I thought at the time - it felt as though it was sideways! So I pulled the 'chute early.'

An aborted run was not what he wanted but Ian knows he did the right thing. 'A couple of cars after me came the "Flying Pickle", a 1959 Saab running a blown engine from a Hayabusa motorcycle. He had a full-on flat spin at the same point on the track. If you have a spin like that then the tech inspectors will thoroughly check the car before you can run again. So if we had spun that would probably have been the

Below and right
Between runs, checks have to be carried out on the Jensen's 1000+bhp 8.2-litre V8; back out on the salt for the final attempt.





'This was the first run where nothing went wrong. So we packed the 'chute and rejoined the start queue'



end of our running as it would have taken so much time to get our flat floor off and everything cleaned up for an inspection. I'm taking it as a "win" that I did the right thing.'

As it happens, Ian and the team removed the central section of the flat underfloor in order to check it. Turning it upside-down, they were presented with a salt pattern mimicking the 'flow vis' paint used by racing teams to get a real-world picture of airflow. 'There was a clean line down the centre and a pattern showing that all the salt was being pushed to the outside and away from the car,' he says. As a further plus, the very low front splitter was not causing any issues on the less-than-flat salt of this year's event.


For the third run the team was back in the start queue very early on the Friday morning – the last day of the 2023 event. 'This run went really well. I think I got the most out of this track in the car.' The timing for what would prove to be the final outing showed 157.999mph at the car's fastest – yes, enough to confirm a 'C' licence.

'We considered another run but it was all feeling a little rushed at this stage as the course isn't open all of the final day. Also I didn't think that the course would let me go any faster. We'd have been rushing to get the car ready and would likely miss something. And then the risk of a breakage

shoots up and I didn't want to damage the engine. I was never going to get over 175mph. The course was just not good enough.'

Although the salt conditions were not the best in this most recent year, some 32 records were broken, the fastest of which was a 236.882mph average set by Jim Hoogerhyde in his on-trend electric-powered streamliner. The fastest speed of the event was set by *Speed Demon*, a blown fuel streamliner, at 333.360mph.

And Ian remains unbowed by the experience. 'By any measure it was a successful Speed Week for us. Within what was a curtailed event due to weather, it was significantly more successful than 2018. We achieved two licensing runs, three runs in all, with absolutely no running issues and no damage. We ran-in a brand new engine. Our aero and cooling designs are completely experimental, just based on ideas that we thought would work. We found that they work well, beyond our expectations. Our donor engine had to be collected and rebuilt from what was a jumbled mass of parts. It all had to be sorted in comical Californian heat. But out of that chaotic start we've got a strong and reliable engine. So yes, I think we had a very successful event.'

And there is always the 2024 Speed Week... 

**'This run went really well.
I think I got the most out
of this track in the car'**

