



ARRIVED

Now offered to industry, the apprenticeship programme at Arriva London develops new technicians and proves their competence with irtec. Over the last three years, this operator has also trained itself, reinforcing its own technical capabilities. Will Dalrymple visits

No engineering training manager, no external standards and training that had not kept pace with advances in technology – that’s what faced Heath Halle when he joined Arriva London two and a half years ago, from the RAC.

His appointment as Arriva London’s engineering training manager was a key step in the transformation of the north London engineering operation of the UK bus operator. Within a couple of years, it has turned around its maintenance practices, trained every single company technician, shaken up traditional mechanical and electrical trade divisions, and launched an innovative apprenticeship programme that was refreshed this year and, last month, featured its largest ever intake, of 20 apprentices.

Halle and his manager, chief engineer Jon Harman, trace back the origins of this new push to a vision of former engineering director Ian Warr (now engineering director – UK Bus, First

Group) some three years ago. According to Harman, like him, most people could see the need to reduce the risk of occurrence of maintenance-related incidents and accidents. He recalls the efforts of Alastair Peoples, former chief executive of DVSA, and Beverley Bell, former senior traffic commissioner, to popularise and endorse the IRTE’s irtec technician accreditations. In particular, he remembers their warning to bus operators to make sure that their maintenance practices provided safe vehicles – or else. Moral, legal and commercial risks were all motivators to adopting a new approach in a traditional company. Reliability improvements and cost efficiencies were all welcome by-products of doing the job right first time, too, Harman says.

In 2014, Arriva London embarked on a £2 million programme to adopt the irtec service maintenance technician qualification for its 250-plus engineers across 16 garages in London operating 1,800 vehicles, each of which is serviced every 35 days. From that year,

all candidates had to have irtec SMT (service maintenance technician) to be considered for a job with Arriva London.

Since none of its existing engineers did, they were all assessed and where necessary were enrolled on a six-week adult apprenticeship that culminated in the irtec assessment. Its purpose was not to train them to be an engineer – their underpinning knowledge should have taken care of that – but to improve or refresh their systems knowledge. Key topics included engines, brakes, chassis, doors, and electrical aspects in particular. Initial assessments resulted in around 82% of engineers being referred. But by March 2016, with the help of the adult apprenticeship, and targeted support in the workshop, almost all the engineers passed. “It was very important to retain and invest in our staff and to catch up on missed training opportunities in the past, so there wasn’t a big cull of engineers,” Harman says.

He recalls that, at the time, Arriva management raised valid concerns about the project. If the engineers

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were tested, and they did not reach the required standard – as was expected to happen – then who was going to fix the buses? Either no maintenance would be done, or engineers now known to fall short of the irtec standard would be carrying out the work. Harman says that his reply was that “those engineers are no less competent on Thursday than they were on Monday; [it’s just that] we know.” He adds: “We mitigated slightly; where we had engineers that had failed on brakes and steering, critical areas, we made sure the managers knew.” Engineers would need to have additional supervision until they were retrained; in other areas engineers worked as normal.

Continues Harman: “We already had a training package lined up to bridge the gaps; that’s really how I was able to sleep at night. If the worst happened – say we had a wheel loss after the assessments, and the engineer involved had recently been referred from his irtec assessment – I’d have to answer for that. But my answer would always be: ‘That engineer’s competence has not changed since the assessment’. It’s all about being a responsible operator, and the most irresponsible thing we could do is not assess them, not train them and not bring them up to standard. The most responsible thing we can do is to start somewhere, and that involved assessing them. And when we identified a gap, we made sure that it was only as big as it practicably needed to be before they were back in training, bridging the gap.”

COURSES FOR HORSES

In the midst of this massive internal push for existing staff, Halle oversaw the relaunch of the apprenticeship in autumn 2015 with an intake of 17 (more than four times the previous quantity). Training was provided by Gateshead College, which at that time had a satellite operation in London, and which recruited three local trainers



Fully functional air-brake testing board used for training at Arriva

and an assessor for Arriva apprentices. But the course was to be very different to the standard classroom-based apprenticeship.

As Harman says: “The needs of the business come first, and we ensured that the college met these needs.”

Arriva turned the apprenticeship on its head. Instead of spending a few days each week at college – for example at City College Coventry – with down time during periods outside of academic terms, Arriva apprentices go to an actual bus garage (Edmonton, north London), and work all year round, just as its buses do. Two weeks out of every three months is taken up with theory training in on-site classrooms formerly used for driver training since that operation moved elsewhere. Non-classroom time is spent in the downstairs training workshops and in six dedicated training bays of its garage (pictured, p17).

Halle explains: “Now that it [apprenticeship training] is in-house, we know when and what they are told, so the garages know, too. Now we teach them what we want them to put in practice. If they have completed the

module on brakes, then they go and do it. When they were offsite, we didn’t know what they had done.” He says that the benefits of this change can be measured by the improving attitudes of its garages toward apprentices.

Whether training for mechanical-electrical or bodywork qualifications, apprentices tackle both theory and practice together, and proceed a single topic at a time. That means that apprentices are carrying out a bus service in a garage only six months into their course.

The first module (of a total 14) is workshop health and safety, including tool checks, safe use of tools, lifting equipment, and making sure that a vehicle is safe. The next is wheel inspection: removing, checking, cleaning and replacing wheels. Following that brakes are covered; first inspection, then service. Each apprentice is supervised by a mentor, a skilled (and qualified) technician who also signs off their work.

Next year, the course will face a key test, as its first group of apprentices hoping to earn a Level 3 accreditation in bus and coach engineering undergo

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Heath Halle, left, and Jon Harman in Edmonton's bus yard

their final assessments. Third-year apprentices are required to be assessed to IRTE's irtec vehicle inspection and SMT accreditations. They will provide independent confirmation of apprentices' competence; those who pass will receive a qualification and industry-standard irtec accreditations in bus and coach engineering. A redundant wash bay in the car park has been converted into an irtec assessment centre, providing a quiet working environment some distance away from the bustle of the garage itself.

NEXT PHASE

The latest intake of apprentices that started last month are the first students in a new college, the Arriva Academy, although they will be taught by the same tutors in the same rooms according to mostly the same curriculum. Earlier this year, Arriva applied for, and won, 'main provider' status by college accreditation body RoATP, partly because of changes in Gateshead College's business – it is moving out of London – and because of changes in the funding landscape. The apprenticeship levy, which came

into effect earlier this year, incentivises large businesses to set up internal training systems (see 'Levy payback', *TE* September 2017, p3). The new Academy now uses its facilities to provide training courses for other bus operators, too, including competitors, as a new business. An example is the three-day Level 3 hybrid bus maintenance course costing £450.

For the sake of continuity and to retain its highly skilled training team, Arriva has hired the apprenticeship course tutors recruited by Gateshead College. A mark of quality is that course tutor Wayne Ellis won the Philip Margrave Memorial Award for Outstanding Achievement at the 2017 IRTE Skills Challenge.

To help keep the trainers fresh, and to support the garage, Ellis and his colleagues continue to help out on more difficult maintenance issues – such as electrical multiplexing faults, hybrid clutch repairs and electrical compressors – that otherwise might require sending the bus back to the manufacturer.

The Arriva Academy now has about 70 apprentices and students on its

books, including external customers, and aims to increase that number to 120 in the next three years. In the very short term, apprentices are a strategic priority for a company suffering from a skills shortage, particularly as older technicians retire. Turnover is “on the high side of normal”, Harman says. Regardless, most of the medium-term growth in apprentice business would come from attracting external candidates from smaller bus operators rather than from increasing internal demands.

“The industry is realising that no one can deliver better training than the operators themselves,” Harman states.

TRAINING EXPANSION

Another future direction is to develop a new apprenticeship programme for lower-level technicians, those that perform simpler, more routine tasks such as MOT preparations, replacing split hoses, changing windscreen wiper blades or torquing wheel nuts. Other training courses proposed include a graduate scheme or degree apprenticeship, or developing training for staff in HR administration, accounts, scheduling, and transport manager roles.

Also, in future, Arriva might consider spinning out the academy structure to sister operations in other parts of the UK, that in total account for two-thirds of its operations.

Harman acknowledges that Arriva London has moved forward by not following the crowd. He concludes: “We trailblaze new ideas in London. Others may ask: ‘What if it fails?’ We ask: ‘What if it doesn’t?’ – and then work hard to make sure success is inevitable.” **IE**

FURTHER INFORMATION

IRTE workshop accreditation – <https://is.gd/asovat>

Irtec and its levels – <https://is.gd/inuduy>

The apprenticeship levy – <https://is.gd/jigori>