

Road to ruin?

In October, converters and bodybuilders will face the climax of one of the biggest regulatory regime changes in their history – EC Whole Vehicle Type Approval applied to N2 and N3 trucks. Brian Tinham examines the implications for them and for operators

Does the arrival of ECWVTA (European Community Whole Vehicle Type Approval) for ‘multi-stage’ (eg OEM chassis cab and third-party body) heavy-duty N2 and N3 vehicles mean the end of the road for bespoke conversions? Will 29 October usher in a new era of higher costs and longer lead times? Might some bodybuilders fall by the wayside? On the other hand, will conversions be better and/or safer?

Well, the somewhat unhelpful answer to the first three questions is ‘yes and no’, if experience with sub 3.5 tonnes N1 vehicles – which came in scope of the legislation last April – is anything to go by. Much depends on the extent to which bodybuilders have prepared for the legislation. Equally, your experience will be governed by the numbers of vehicles you (and others like you) want, and whether these can be deemed part of an approved range. Ultimately, the more specialised and fewer in number, the more expensive your vehicles will be and the longer you may need to wait for them – if they’re available at all.

As for performance and safety, in theory that shouldn’t change. The rules are aimed at smartening up bodybuilders’ and converters’ quality processes, not tampering with the statutes that underpin C&U (Construction and Use). That said, the mere fact of a focus on quality systems and procedures is almost bound to have some positive impact. Equally, a remaining loophole in two (albeit less attractive) of the three type approval processes leaves the door wide open for older technology.

So, what’s happening? Currently, DVLA (the Driver and Vehicle Licensing Agency) is still accepting conversions involving bodies added to approved chassis cabs over 3.5 tonnes with no additional type approvals. In essence, as long as bodybuilders and converters comply with C&U regulations for their vehicle additions, everything is hunky dory.

However, in just eight months, all that changes, and certificates of conformity for ‘incomplete vehicles’ (chassis cabs) will no longer be accepted. Instead, finished vehicles, including their bodies, will require new ECWVTA, NSSTA (National Small Series Type approval) or IVA (Individual Vehicle Approval) certificates, under the direction of the VCA (Vehicle Certification Agency), in Bristol.

Serious concerns

That puts a new onus on the bodybuilders, who will need to work with OEMs to prove and maintain compliance, if they select the mainstream ECWVTA or smaller-scale NSSTA routes. And that’s not only in terms of technical issues (masses and dimensions, conspicuity, rear under-runs, side guards, spray suppression, etc), but also their manufacturing and quality standards. Even if they go for the less onerous IVA approach – which involves testing and checking single vehicles against the IVA Manual – the undertakings are neither trivial nor free.

There will be exemptions, but very few: fire engines, police vehicles, armed services vehicles, tracked vehicles, engineering plant, mobile cranes and road sweepers not built on truck chassis, for

Type approval route pros and cons



ECWVTA (European Community Whole Vehicle Type Approval) is the mainstream approval route, formally and perpetually linking OEMs and bodybuilders, and requiring one-off vehicle testing and verification, as well as accreditation of production conformance and quality processes. Timeframes are six weeks to six months. Once approved, unlimited numbers of vehicles can be sold anywhere in Europe, without further testing.

NSSTA (National Small Series Type approval) is similar but, because 2009 regulations pertain in the UK, test reports are to those standards. Timeframes are still six weeks to six months.

This approach makes sense for converters building 30–100 vehicles but they are only eligible for sale within the UK.

IVA (Individual Vehicle Approval) still follows type approval requirements, but with VOSA test stations inspecting each converted vehicle to the requirements of the IVA Manual, and referring to test reports on issues ranging from vehicle noise to fuel tanks, emissions, brakes, EMC and underrun protection. Current waiting times for VOSA are six to eight weeks. This route is aimed at converters building 20–50 vehicles. Again, once approved, each can only be sold in the UK.



example. However, gritters, snow ploughs, electric vehicles, breakdown trucks and several others currently exempt from the outgoing GVNTA (goods vehicle national type approval) rules, will lose their 'special purpose' status.

This is old hat for the OEMs, who have been working within the new type approval rules for complete bodied vehicles under their sole control (single stage) since 2010 for new types and 2012 for the rest. However, one immediate concern is that some converters will have failed to grasp the nettle in time – crucially, not obtaining accreditation of their quality and production processes – to take vehicles through the ECWVTA or NSSTA routes. These firms will be forced to go through IVA, which means driving each vehicle to one of the few VOSA stations designated for inspection, prior to registration through AFRL (Automated First Registration and Licensing).

Legal implications

Therein lies the first problem. According to FTA (Freight Transport Association) head of engineering Andy Mair, IVA slots are already oversubscribed. "Although VOSA is aware of the problem and is seeking to streamline the process, new vehicle registrations through IVA are currently suffering weeks of delays and that situation can only get worse come October," he suggests. And there's a fee: an additional £230 per vehicle plus any retests. Add to

that the cost of drivers and fuel, and operators can also expect price hikes.

Even for bodybuilders that are prepared, additional pass-on costs and delays are almost inevitable. Tony Soper, principal engineer at Millbrook in charge of type approval, explains that under both ECWVTA and NSSTA rules (based on a single type approval cost and no fees for identical vehicles), the starting point will now be 'letters of association', between OEMs and bodybuilders. "These are formal documents which demonstrate that each party is aware of what the other is doing and communicating developments that might affect type approval," he states. And there are legal implications: "If a vehicle is involved in a serious accident, those documents could be used as evidence that the stage one supplier had some knowledge of what the bodybuilder was doing."

That's already a significant change from the OEMs simply selling chassis cabs to whomever, for whatever, and effectively abdicating responsibility. Not only does it imply additional administrative and potentially insurance costs for both parties, but it also means that some companies may no longer want to work with one another.

But there's more: the next stage involves a 'worst case' meeting with the VCA engineering team, to agree the scope of assessments and testing, in readiness for submitting one bodied vehicle for technical approval. "They then inspect it and review

Tony Soper, principal engineer at Millbrook in charge of type approval: "There are legal implications"



**Top: Andy Mair, FTA
head of engineering**



**Above: Tony
Hopkins, SMMT
technical manager**

test reports and evidence,” explains Soper. “Assuming these meet the criteria, the bodybuilder then has to undertake to make all those vehicles exactly the same and in the same way.”

This represents a very real third hurdle: the VCA requires proof from the bodybuilder of conformity of production, to complete the main type approval processes. “That involves two levels: evidence of a general quality system and production of specific control and build plans for the vehicle being type approved,” explains Soper. “For the first part, ISO 9001 is the gold standard, but if that’s not available, a VCA conformity of production engineer will need to come in and audit the bodybuilder’s quality systems.” Admittedly, that’s a one-off, but for control and build plans, each type approval requires a similar audit, so you’re looking at potentially months of work.

Longer lead times, higher prices

Sounding costly? It is. Converters will need to: pay VCA fees; fund the production of documentation and its ongoing administration; pay for any tests, including crash testing; and shoulder the cost of parts to be tested, up to and including the body shell. And it’s even worse: hidden costs will come in the form of steep learning curves for bodybuilders’ management teams and an investment in people and processes – although many might argue that they would expect this level of quality and conformance anyway.

What’s more, most of these processes have to be repeated for each vehicle marque. So, for example, the same refrigerated box destined for Renault Trafic, Ford Transit and Vauxhall Movano chassis needs three separate whole vehicle type approvals. Additionally, because the OEMs’ approvals have to be linked to the bodybuilders’, the latter need to understand all terms specific to each vehicle version. So it’s not difficult to see how prices and timescales will escalate. And, given that the industry is not driven by converters, but by dealerships and, in turn, customers, it’s also easy to understand why innovation might be stifled. Indeed, one of the widely

predicted outcomes of WVTA is that converters are likely to rationalise the bodies they offer. Another is that they’ll rationalise the OEMs they work with – not least because the UK only hosts sales organisations, with OEMs’ engineering authority at European HQs – so accessing the right people can be difficult.

Furthermore, it’s not difficult to see why some bodybuilders might plump for the IVA route for some, if not all, of their production – certainly where the volumes don’t justify the expense of the alternatives. And that could be a smart move for them – and for others selecting the National Small Series approach.

Why? Because, by a quirk apparently of parliamentary time and DfT (Department for Transport) oversight, both the NSSTA and IVA type approvals are governed in the UK by Statutory Instrument 2009/717. That calls up the relevant European directives for systems to be approved, but using regulations frozen in 2009 and not likely to be updated anytime soon.

What does that mean? It implies that converters and OEMs can, if they wish, use older technology. “For example, on emissions limits for Normal IVA and NSSTA there was a phased transition to Euro 5, which is currently applicable until 2016,” states Soper. “And electronic stability control, which is mandated in ECWVTA legislation, is not a requirement in NSSTA or IVA.” In practical terms, such nuances are unlikely to affect what the vehicles operators get – partly because they may favour current systems, and partly because they’re unlikely to be able to get their hands on much less.

However, for truck manufacturers wanting to shift unsold stocks, this is a perfectly legal open door. No one is suggesting that OEMs perceiving a market in for Euro 5 vehicles are likely to ramp-up production of now obsolete ranges and pass them off under NSSTA – it simply wouldn’t be practical or economic on capacity-limited assembly lines. And none are likely to risk their brand image. But expect to see hundreds of old stock arriving at VOSA stations for IVA certification on their way to happy customers. **TE**

Time to review vehicle specifications



For operators that have always bought a particular box body, tipper, emergency vehicle or specialist semi-trailer, it’s time to ask: do you really need that precise specification? As Tony Hopkins, the SMMT’s technical manager responsible for type approval, puts it: “You will probably be able to get exactly what you’ve always had, but it’s going to cost you. If it’s not already covered in the converter’s range, he’ll need additional type approval – probably using the IVA route, unless the order involves serious numbers.”

For bodybuilders, it’s crunch time, with the SMMT and others urging rapid action to get their houses in order. This means not only liaising with preferred vehicle OEMs and the VCA, getting quality systems and build plans in place, but also considering type approval paths. For those going the ECWVTA or NSSTA route, Hopkins suggests this will take them right up to the deadline.

Andy Mair, the FTA’s head of engineering, agrees: “The concern is that SMEs may not have contracts and quality systems in place. That could mean problems for them, but also the users, who may suffer significant delays. If they can’t get a certificate of conformity, then the vehicle won’t be registered.”

Hopkins also advises working on variants and versions. “Don’t nail yourself down too much. Within the type approval rules there is room for some flexibility, so give some thought to what your customers are likely to want... That will save you a lot of money [on type approval extensions] in the long run.”

And Mair adds that there is also provision for derogations. “Where it can be demonstrated that a requirement is incompatible with the operation of the vehicle, there is flexibility. This is not about exemptions, as it used to be. It’s a case-by-case evaluation.”