

Wheels within WHEELS



All coaches used on scheduled services must be wheelchair accessible by 2020. Richard Simpson takes a look at the products and the pitfalls

All coaches used on scheduled services will have to be wheelchair accessible from 1 January 2020 under the Public Service Vehicle Accessibility Regulations.

Making a coach wheelchair accessible poses obvious engineering challenges. As the UK's leading scheduled coach service operator, National Express was an early adopter of wheelchair-accessible services, citing not just legislative and commercial factors but also a general aim to make its services accessible for all. The company began with trials using a side-mounted lift on a Plaxton-bodied Volvo in 2004, then launched its first volume vehicles the following year using Volvo Caetano coaches fitted with front-entrance lifts manufactured by PLS of Birmingham.

National Express says its design was driven by an underlying requirement to create a coach that did not change the entrance and exit of the vehicle for those who were not able-bodied. This led to the development of a wide front-entrance door solution with an integrated entrance lift, which subsequently became the UK norm for interurban coach operation.

The entire liveried National Express fleet of over 550 coaches now has wheelchair lifts, and is accessible for passengers with reduced mobility. National Express's standard lift is

now the Gobel 300 from Spanish manufacturer Hidrel Gobel.

However, the static infrastructure used by coach operators has not developed at the same pace as the vehicles. A National Express spokesperson says: "Only 43% of the circa 1,400 coach stops across our national network are currently fully accessible to passengers who require use of the accessible lift on our vehicles. Common issues include herringbone bays, street furniture (litter bins and planters), walls and fences and overhanging shelters, which can hinder and prevent full deployment of the lift. We have to physically go out and assess each one of our stops, which is time- and resource-intensive."

Ironically, it appears that while the legislation regarding wheelchair accessibility to coaches is clear, the rules regarding stations and stops are rather less so.

The National Express spokesperson continues: "We endeavour to work with third parties such as local authorities where there are inaccessible stations and stops that are not owned or operated by us. However, this clearly requires investment and a willingness to make alterations by those third parties. Good practice is unfortunately not replicated consistently across our national network, and there are examples of new stations and stops being delivered without key accessibility requirements being

incorporated into the design.

"Where we know that stations or stops are being built or redeveloped, we try to proactively engage stakeholders early on to incorporate accessibility requirements into the design. This includes suitable drop-off areas and access for taxis. However, clearly this is not something we always have control over, and these requirements are not always taken into consideration. Where accessibility requirements are not incorporated into the design, this often means that retrospective alterations are necessary, at additional time and expense. Transport interchange is a particular problem, as coach is often not considered alongside rail and bus."

ONCE ON BOARD

Infrastructure aside, installing a wheelchair lift on a coach is just the first step in making the vehicle accessible. Once on board, the wheelchair itself must be safely 'parked' and restrained. National Express worked with NMI Safety Systems of Stevenage to create a solution where only two coach seating positions would be lost to accommodate the wheelchair.

The NMI Magic seats are positioned at the front of the coach, and look just like the other coach seats, but are mounted on special bases. If a passenger is carried in a wheelchair, then the seat cushions are removed.



be relocated to the rear of the vehicle for luggage space. It can lift to heights of up to 1.8m and has a 350kg capacity.

CARE AND MAINTENANCE

Installing lifts on coaches brings additional legal and technical responsibilities to a fleet.

Lifts become part of the driver's daily check routine, and are also subject to a LOLER test at six-monthly intervals. Most operators will also wish to include them in the coach's routine inspection (typically every three to six weeks). Equipment which is only used irregularly can often develop faults from lack of use.

Staff also need to be trained, not just in the maintenance and operation of the lift, but also in terms of disability awareness and wheelchair safety. This can be included in driver CPC training (see below for examples).

Finally, it is also only fair to passengers and staff to set out clear contractual limits on what drivers and other staff can and cannot do with regards to helping wheelchair users (and other disabled passengers). Drivers cannot be expected to act as personal care assistants or wheelchair mechanics for unaccompanied travellers. But equally, passengers can expect to be treated with dignity and given reasonable help. For the benefit of all, it is probably best for operators to set clear rules; for example that 'mobility scooters' are not wheelchairs, and are probably too big and heavy to be carried at all. **TE**

FURTHER INFORMATION

- Driver training for disabled passengers: <https://is.gd/yesugo>
- <https://is.gd/ijocir>
- <https://is.gd/tidano>

One seatback is stowed away, while the other is moved to a more central position. Then the wheelchair can be manoeuvred into position and secured by webbing straps tensioned by a foot-operated ratchet mechanism contained in the seat base. In the latest Mark 4 iteration, the seats are secured by MMI's floor pocket system, which is flush with the coach floor when not in use and does not become a trip hazard or dirt trap.

However, space constraints apply, and not every wheelchair type can be carried: powered wheelchairs, in particular, may be too bulky. This means that wheelchair travel is still not a turn-up-and-go experience for the passenger. Wheelchair spaces must be pre-booked, not just because there is only one space per coach, but also because it must be determined that the wheelchair type is compatible.

INSTALLATION OPTIONS

Operators wishing to install wheelchair lifts on coaches, whether for use on scheduled services in anticipation of 2020, or to increase the market for their leisure travel offerings, have a choice of technical solutions.

Birmingham company PLS offers a variety of products, including the GNX-Access front entrance lift, the Access-Mega Coach bottom-locker, and the Access EQ Coach Ski-locker. The first is

intended for seamless operation: deploying in a single action controlled from the driver's seat, with roll stops automatically retracting on contact with the ground and extending as the lift platform rises. At less than a metre wide, it fits with a standard plug-type door. It is suitable for use on coaches with lower floor heights and can handle weights of up to 300kg.

Touring coaches with a medium or high floor require a more elaborate product. The Mega-Coach bottom-locker works with floor heights of up to 1.7 metres, and is stowed in the luggage locker when not deployed. It can handle loads of up to 400 or 500kg, and has platform dimensions of up to 0.925 x 2.00m. Top of the range in terms of capability is the Access EQ, which mounts in the ski compartment directly over the rear axle of a high-floor luxury coach. It is capable of lifting weights of up to 400kg to heights of 1.8 metres.

Irizar now offers the Masats KS8 lift (pictured, inset) for its flagship i8 Integral tri-axle coach. This fits over the rear axles of the coach, while the on-board WC can

