

BFS has two TLD ambulifts in its fleet



Slow and steady

High lifts and loaders may not be the fastest-changing items in the GSE mix, but there is increasing demand for improved safety and environmental performance, and manufacturers are responding – as Megan Ramsay discovers



Serving a specific market

"THE ONLY HI-LIFT LOADER AMSS (Aircraft Maintenance Support Services) manufactures is our ATLAS K Loader," confirms Scott Barber, commercial director at the UK-based producer of military and civilian GSE.

"Our standard ATLAS K Loader is a 40,000lbs capable (four-pallet) unit which is still generating sales in existing and new markets worldwide. The demand for this equipment shows no sign of letting up.

"AMSS has recently completed development of our ATLAS-5, which offers all the same capabilities as the existing proven system, including our all-wheel steering system which enables crab steering from accurate positioning at the aircraft," he points out.

The maximum operating payload has increased to 50,000lbs (or five standard military 463L pallets). The ATLAS-5 will service all aircraft cargo holds from a C130 to a B747 main deck and can also be fitted with AMSS's Dolly Interface System, which enables the unit to interface down to pallet dolly height – thereby transforming this equipment into a six-pallet capability.

The product was officially launched at *inter airport* in Munich last year to much interest from many of AMSS's international customers. Barber went on. "The unit has been developed to respond to the increasing military requirements for larger strategic loaders to handle A400M and C17 aircraft," he explained. "We have incorporated all of the lessons learned from our experience in building and manufacturing the ATLAS... The ATLAS-5 is in fact the sixth-generation loader in the ATLAS family, which has continually developed the loader from lessons learned from 25 years' operations and a total of 32 individual customers who operate ATLAS loaders across the globe."

The ATLAS-5 retains many of the components and the same operating system, ensuring operator and maintainer familiarity. It is fitted with a highly effective pallet drive system that retains many of the features from the proven four-pallet ATLAS design.

"We will continue to offer both types of K-Loader to provide customers a wider variety of choice to suit both tactical and strategic logistics requirements," Barber confirms.

As regards the differences between military and civilian requirements, he outlines: "In the main, we find the civilian requirement is focused on single 96 x 232 pallets. This enables the loaders to be designed and built primarily for use loading and unloading one type of cargo.

"The military tend to have a more broad requirement as they have a higher percentage of outsized and specialist cargo. The types of aircraft vary as well: whereas civilian aircraft cargo holds are much higher from the ground, the military aircraft have a lower cargo hold (approx 1m from the ground on a C130) which means the standard civilian loaders cannot go low enough to interface with the military aircraft. Civilian loaders tend to be based on one stand close to the aircraft, whereas the military require units which can travel longer distances and transport the cargo. The military also need loaders that can be deployed for short periods of time; this is not a requirement for civilian loaders.

"In essence," he sums up, "civilian loaders are designed with a specific job and therefore are extremely efficient at loading civilian aircraft with civilian pallets. The K Loader is less efficient for standard civilian operations, but is more versatile, enabling it to service a wider range of aircraft, a wider range of cargo types and operate as both a transporter as well as a loader."

COLLABORATION

Last year, AMSS and JBT Corporation announced a co-operation agreement. "JBT and AMSS have complementary products and military relationships around the world," said Dave Burdakin, president at JBT AeroTech, the segment of JBT Corporation that produces aviation support equipment. "This agreement enables both companies to offer an expanded suite of products to customers in the military fighter and cargo aircraft markets."

Each of the companies will provide regional support for products marketed under the agreement, while certain products will be manufactured locally under licensing agreements in order to allow for customisation to meet individual customer needs. ●

The longstanding AMSS ATLAS design continues to evolve



According to Nick Moore, senior vice president – airline services – UAE airport operations at Dubai-headquartered handler dnata: "The ground handling industry will be more regulated in the very near future and this will mean a greater focus on GSE in general, including high loaders. In essence, the focus will be on safety, efficiency and training. At dnata, we welcome this and take pride in participating in industry forums and GSE supplier initiatives."

Gerd Van Damme, asset director for European GSE provider notes that this increase in safety features for the protection of GSE users and aircraft represent a general trend across the industry. He notes a rise in the use of 'aircraft approach' systems. Another example is to be found in the use of stairs on the side of the loader for easy evacuation – although, he says, "This does not always improve ease of use as, for instance, stairs increase the width of the loader where there is sometimes limited space between the loader and the catering truck."

Some lifts have a medical function and, once again, safety issues are a driver for development. Colin Temple, director, ramp operations and maintenance at Bangkok Flight Services (BFS is a joint venture of Worldwide Flight Services, or WFS, and Bangkok Airways), observes: "The majority of the requests for our ambulift vehicles come from our widebody customers, so we use wide-platform trucks that can reach the main deck. The main changes we see are with the interlocking devices to ensure safety features are used correctly. So far we have not integrated any aircraft proximity devices.

"At this time we have no plans for modifications but experience shows that our Safety Management System is usually the main driver for change. We modified the operator's platform on the loaders last year in collaboration with TLD following investigation into a GSE incident," he adds.

At dnata, Moore agrees that while the designs and functions of loaders haven't radically changed since the 1970s, the focus on safety is now paramount. "Important features, such as proximity sensors and personal safety features have been added," he says.

In addition: "We are at the moment about to start a trial with electric high loaders and this is very exciting for us. As stated above, we will continue to improve safety and efficiency. We have introduced water-cooled engines and we find these very effective in dealing with extreme temperatures. New safety features will come with all new orders and we are also introducing a zonal method of working at Dubai. This will allocate high loaders to 'zones' across the airport, thus reducing engine hours and wear and tear on the high loaders. It will also increase the

case for further electrification," he feels.

There is a definite move in supply patterns these days towards alternative drivelines (such as electric with lead-acid or Li-Ion, or hydrogen), Van Damme confirms.

The US Tier 4/EU Stage IV emission regulations that came into effect in 2014 have led to developments such as GSE manufacturer TLD making its full loader range compliant with the new standards. The company has already implemented solutions to be deployed worldwide in 2016.

Indeed, TLD has released a second generation of electrical loaders with its innovative design, e-drive. The e-drive consists of directly coupling the electric motor to the axle, thus increasing the driving power of the loader by up to 30%. This innovation is a great example of the simple, reliable and easy to maintain philosophy that TLD embraces to improve continuously its range of products, a company spokesperson emphasises.

The manufacturer's latest 7-ton electric loader equipped with its reGen and e-drive technologies was presented at the *Inter Airport Europe* show in Munich last year, and drew considerable interest. The reGen loader regenerates energy from the descent of the platform and stores it in super-capacitors. This energy is used to start powering the elevator up, thus avoiding a big draw from the loader battery system, the spokesperson explains.

Temple highlights the strong environmental pressures that are driving change in the GSE market. For instance: "Hydraulic spills are now policed better and escalating clean-up costs and heavy fines are being levied. Good preventative maintenance and use of genuine parts helps us to minimise the number of spills," he notes.

MEETING OPERATIONAL NEEDS

Loaders need to be able to keep pace with operations, as dnata's Moore points out. "We have a huge hourly demand from all our customers at Dubai – both passenger and freighter operations. We need safe, reliable, hardworking kit that can operate in temperatures up to 50 degrees Celsius 24/7. There is no night curfew at Dubai and that means the operation never stops; in fact, the night time is one of our busiest peaks."

In order to manage this traffic in these conditions, "We own 100% of our lower deck loader and maindeck loader fleet in Dubai. We have a mix of Trepel from Germany and JBT from the USA. We have looked at

New on the market

IN OTHER NEWS FROM JBT, the company has announced that this year will see the roll-out of its new Ranger 7-ton capacity cargo loader, which met with positive customer feedback at *Inter Airport Europe* in Munich last year and has undergone "extensive operational testing to ensure that it will meet the challenges of a harsh working environment," according to JBT loader engineering manager Kevin Cecil.

"It is important to understand that the Ranger will not be replacing the Commander 15i, which remains the loader of choice for customers who prefer a modular machine that offers an array of customised options," Cecil adds.

Some of the features of the Ranger include the JBT Heliroll™ convey system; easy-access maintenance through hinged panels; and a leaf spring suspension on the front axle that provides a smooth ride. The optional high speed drive (22km/h) package aids efficiency by minimising long-distance drive times, while the JBT Aircraft Proximity Detection (APD) system has been proven to reduce aircraft damage – thereby ensuring that the Ranger is doing its part to improve safety on the ramp. ●



JBT's new Ranger 7-ton capacity cargo loader

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different methods of ownership and management of our fleet but as we have a 24/7 operation and a highly efficient GSE maintenance department in Dubai we opt to own and keep maintenance in-house.

"We have in place a preferred supplier list that takes into consideration our high loader needs. This is effective across all dnata stations and largely keeps us in line with policy. Where we have local variation it is usually down to a local operational requirement, or because we have purchased a business and the previous GSE is still in use," he outlines.

Van Damme confirms that TCR currently has 437 loaders in its rental fleet, and that customers' requirements are changing. There is currently less demand for 3.5-tonne loaders as a lot of A319s are bulk loaded; clients are selecting the wider 7-tonne loader over the 7-tonne standard model, even when their operations do not always require that extra width; and in terms of maindeck loaders, "we see a movement towards 14-tonne and 35-tonne models – the capacities in between are reducing".

One of TCR's customers is Paris-headquartered handler and BFS parent company Worldwide Flight Services (WFS Group). According to the group's executive chairman, president and CEO, Olivier Bijaoui:



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"We usually use TLD ramp operating equipment, which we get via TCR. We are investing in Spain, again via TCR – we got five licences in Spain in the last tender, especially in Madrid (where we were chosen over Swissport). So we've got a big chunk of equipment in Spain.

"We also have lots of ground handling and baggage handling equipment in Paris, and then in Italy too – we've taken over ATA at five Italian airports, so we're growing substantially there."

WFS usually uses the same equipment across its network, preferring to negotiate with the same people – unless of course they are not present in a particular location. This approach affords the handler leverage as well as consistency for spare parts.

Bijaoui considers: "Our ground handling development has been unusual because we're far more cargo-oriented, but we're very active in ground handling in Spain and Italy. We're giving more attention to ground handling now. We recently made a major acquisition in Brazil, which gives us a presence at 19 airports there. And we recently purchased 51% of Fraport Cargo Services, which is very important for us. There's definitely a trend for consolidation in the handling sector – and we will be making more acquisitions in 2016."

In fact, in January this year it was announced that WFS had entered into an agreement to acquire Consolidated Aviation Services (CAS), a New-York-headquartered handler, subject to regulatory approval. Bijaoui believes: "The proposed acquisition will not only create a unique organisation in the United States that combines the best of both companies, but will also reinforce WFS's position as one of the world's premier cargo handlers. [T]he combination will create one of the most knowledgeable and experienced teams in this industry."

Back at BFS, Temple confirms the operation has two ambulift vehicles, two maindeck loaders, six universal loaders and 21 lower deck loaders. All are manufactured by TLD and owned by BFS. He explains: "At the time BFS was established, the leasing market was not developed in the region. The fleet required for start-up was purchased from TLD. Additional equipment has been added over the last four years, all TLD to maintain fleet commonality.

"The loaders are required for our freighter and widebody customer operations. We handle between four and eight widebody freighters every day. Our widebody customers carry a lot of cargo to and from Bangkok, so usually the belly capacity on these aircraft is fully utilised. With some 60 turns a day using widebodies, we need fast loading cycle time and reliability," he stresses.

Furthermore: "Unlike many airports we cannot bring fuel to the loading machines, so they have to be driven to the fuel station. This adds extra usage hours and additional wear and tear to the running gear and drive train. TLD are well aware of our working environment and support us continuously," Temple adds. ■