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Demand for refurbished landing gear parts is increasing, but constraints persist. Alex Preston reports

n July this year, flydubai's chief executive officer Ghaith Al Ghaith stated that Boeing's short-noticed and frequent delivery schedule revisions had hindered the airline's growth plans, resulting in significant disruptions to its published schedules.

It was a rare public admonishment of the airframer by the Middle Eastern operator, which has been forced to extend the lease on some of the aircraft which were scheduled to be returned to the lessors under its sale and leaseback agreements, and which has led to the airline incurring further costs.

The domino effect of such action is being felt in the complex scenario of the spare parts market. The 'in service' issues operators are facing with new-generation aircraft have led some to prolong the operational life of older-generation aircraft, while delays in new aircraft deliveries are having a significant impact on the demand for refurbished landing gear shipsets and spare parts.

STOCKPILING

It is a demand fuelled by OEMs not having yet restored the supply chains for new parts, which in turn, says Karolis Jurkevičius, VP landing gear trading & leasing, APOC Aviation, is pushing parts providers like APOC to increase investment in stocks of refurbished landing gear parts.

"We are investing heavily in our stock to ensure that most in-demand parts are available," reveals Jurkevičius. "We are also investing in our asset pool, so we have good availability of ready-to-go, overhauled gears for exchanges. Our lease portfolio is also increasing and is available to operators who require a landing gear to keep their aircraft flying while their own gears are being repaired. APOC intends to double its current stock levels of piece parts and assets in the next 12 months."

APOC's landing gear division has been operational for six years, primarily focusing on asset leasing and trading. With a pool of up to 30 landing gear shipsets available for lease, sale or exchange, the division specialises in A320 family and Boeing 737NG gears, while also trading 757, 777-300ER, 767 and A330 landing gears.

"DEMAND IS BACK, WITH MRO FIRMS STRUGGLING TO RAMP UP CAPACITY"

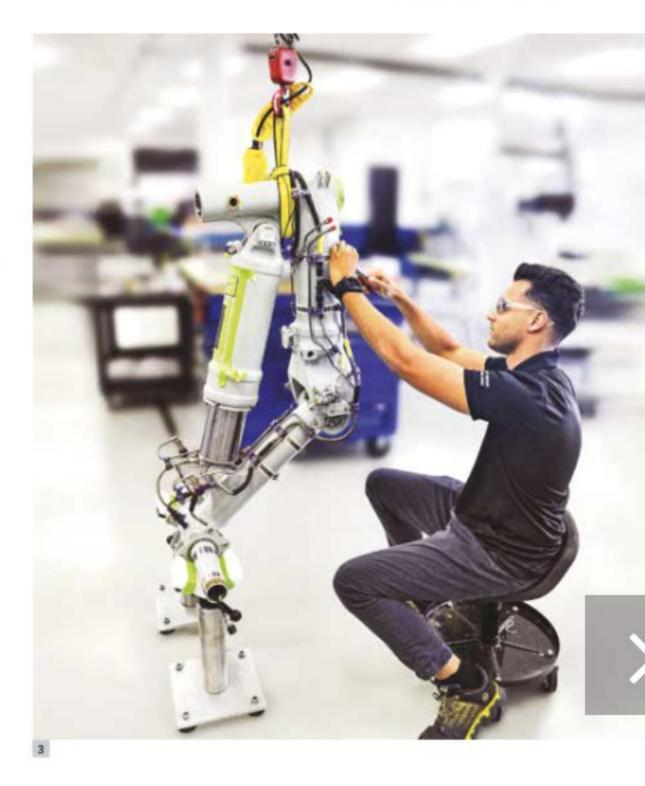
Lindsay Cooper, AJW Group

Jurkevičius's observation is one that is shared by Lindsay Cooper, head of asset management at AJW Group, which offers a wide span of component repair and management capability, teardowns, engine and asset management, distribution, supply chain and financial solutions.

"Effectively managing inventory is vital for MRO stakeholders to maintain minimal equipment levels and for optimal customer service delivery," says Cooper. "It requires forward planning and a strong business strategy. Businesses such as AJW that have made substantial investments in stock are better equipped to mitigate supply chain disruptions, meet their economic targets, and achieve business success."

Jurkevičius agrees, citing that such investment is necessary as the ongoing global supply chain issues, including shortages of raw materials and components, are increasing TAT for landing gear repairs. Exacerbating the issue is the fact that many MROs are cautious with their inventory levels post-pandemic, focusing on 'just-in-time' inventory policies, which has an impact on availability and speed of fulfilment, he says.





"At APOC, we use our parts stock to support our own asset repairs, enabling us to reduce overhaul turnaround time. We also sell and exchange our component stock to the market so operators, who have the same OEM supply issues, can repair their landing gears faster using overhauled used material instead of waiting for new parts."

Cooper opines that supply chain disruptions are causing significant delays in the delivery of new components such as landing gear and affecting the shop processing times for the repair of unserviceable components. "This bottleneck in the repair cycle amplifies the difficulties faced by operators in fleet maintenance," she explains, adding that "aftermarket demands are back at pre-Covid levels, with MRO businesses across the globe struggling to ramp up capacity to supply the demand to sufficient levels."

DISASSEMBLY DEMAND

Jurkevičius shares that APOC's inventory levels of refurbished landing gear parts have significantly increased since the pandemic, achieved through teardown of older landing gears and repairs of the piece parts.

Aircraft teardown and part-out provides a sustainable source of high-quality, cost-effective spare parts for aircraft operators, maintenance facilities, and others in the aviation industry and helps to address the growing demand for spare parts,

1. The landing gear spare parts market is undergoing high demand which is likely to continue for the next few years Lindsay Cooper, head of asset management, AJW Group 3 Landing gear build in progress

LANDING GEAR





"THE LANDING GEAR MARKET WILL CONTINUE TO EXPERIENCE HIGH DEMAND FOR ASSETS AND PARTS"

Karolis Jurkevičius, APOC Aviation

especially for older aircraft models or those that are no longer in production. As Cooper explains, "By salvaging and reselling serviceable components, the teardown/part-out process offers an environmentally friendly solution by extending the lifecycle of existing parts and reducing the need for new manufacturing."

"The primary objective of the teardown/part-out process is to recover components and parts from a retired aircraft or one that is no longer economically viable to operate and maintain. While these appear to be two separate processes, the terms are used interchangeably and often regarded as one process. One could say that part-out is a sub process within the teardown process where one recovers individual, often high-value parts or components for aftermarket resale," she adds.

MIDLIFE CRISIS

The AJW teams are seeing a major trend in the high demand for A320 and A330 enhanced gears, "receiving daily requests for them". Its Boeing 737NG (next generation) sets are constantly on loan, with further customers' requests lining up. This recent spike in demand is due to delayed shop visits, the ongoing after-effects of Covid, and parts and labour shortages, but the company is confident that its influx of aircraft coming in can meet this pressure.

Jurkevičius identifies another factor. "During the pandemic, and many months after it, a majority of aircraft were stored," he says. "Some parked aircraft had robust measures in place to ensure the preservation of the landing gear and other essential parts, but others had no procedures or protection at all. The current demand for midlife aircraft has forced airlines to return stored assets to service, which require maintenance before operation. Following storage, a majority of landing gears require replacement or repairs due to increased corrosion or end life. In all cases, stored gears are found with corrosion on the harness, inner parts and actuators, making these the most sought-after landing gear parts."

For APOC, the increasing shortage of new material and the knock-on effect of longer repair times on gears is leading the trend for overhauled, used serviceable material (USM). While used landing gear parts can help to control the final cost of the landing gear repairs and maintenance, OEM pricing policies for spare parts remain stubbornly very high.

For Cooper, there are two primary factors increasing the cost of spare parts. Firstly, TAT through the repair cycle requires more serviceable inventory to meet demand for serviceable parts. Secondly, OEMs are increasing catalogue list price by between 7-12% p/a. This drives the fair market value (FMV) of serviceable parts where the price is pegged to the list price, and when you add the reduced availability caused by 45-day plus shop processing times, the price must increase, which is "simple supply and demand economics".

Such economics is set to continue into the years ahead, with Jurkevičius and Cooper both prudent about the future.

Jurkevičius warns: "With the extended lifespan of current mid-life operated aircraft, the landing gear market will continue to experience high demand for assets and parts. This will continue until OEMs solve their supply issues with the availability of raw material and stabilise their parts manufacturing and new aircraft deliveries."

For Cooper, the outcome resides in resolving the shortage in the supply of spare parts versus the demand profile. "The spares market is undergoing rapid recovery, which is creating a high demand for parts and USM. In our opinion, it is going to be well beyond 2026 before we see an alleviation in this situation while the OEMs get to grips with their labour, supply and delivery issues. There are retirements planned which will improve the parts supply, and this will soften the current demand to some extent, but this won't happen anytime soon." •

- Karolis Jurkevičius, VP landing gear trading & leasing, APOC Aviation
- 2. Components assembly is precision work



AJW Group is the world-leading independent component parts, repair, lease, engine, flight hour programme, and supply chain solutions integrator, transforming efficiency in commercial, business and defence aviation.

With hubs and offices on every continent - including AJW Technique, a state-of-the-art component MRO facility in Montreal

nose to tail, we have you covered.