

Dreamliner Woes Spotlight Japan Battery Maker

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TOKYO (AP) — The troubles with Boeing's 787 Dreamliner are drawing an unwelcome spotlight for the Japanese maker of the powerful lithium-ion batteries that have become the focus of investigations into onboard fire risks.

Kyoto, Japan-based GS Yuasa Corp. said it began working Thursday with investigators probing the cause of recent problems with the 787. An overheated leaking battery prompted an All Nippon Airways jet to make an emergency landing on Wednesday, leading regulators in Japan, the U.S., India and Europe to ground the planes.

Safety experts say the leakage of electrolyte from the ANA jet was cause for serious alarm because the very corrosive fluid can damage electrical wiring, components and even support structures for the plane's composite body.

"The cause of the problems is unclear," said Yasushi Yamamoto, a spokesman for GS Yuasa. "We still don't know if the problem is with the battery, the power source or the electronics systems," he said.

The 787 relies far more than older aircraft on electrical systems, and troubles with the batteries could pose a challenge to GS Yuasa's aerospace aspirations. Apart from the 787, the company has a contract to supply lithium ion batteries to the International Space Station.

The Dreamliner is the first airliner to make extensive use of lithium-ion batteries to help power its main electrical systems. The batteries were chosen for their quick charging times and capacity to fit into space-saving shapes, facilitating the use of energy-efficient, lightweight composite materials for the plane's body instead of the usual aluminum.

But like other lithium-ion batteries, they do pose risks. Such batteries are used in countless electronic devices and overheating that had the potential to cause fires resulted in laptop recalls in recent years.

Japanese manufacturers such as GS Yuasa, Mitsubishi Heavy Industries and other powerhouses provide about 35 percent of the Boeing 787's parts, and the project has boosted the ambitions of an aerospace production hub centered on the central city of Nagoya. Building up such high-tech industries is a pillar of government policies aimed at restoring Japan's export competitiveness and revitalizing an economy mired in recession.

Lithium-ion batteries account for a small but growing part of total sales for GS Yuasa, a company first founded in 1895 that according to data company Toyo Keizai Inc. is the world's third-biggest battery maker.

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The company is much better known for its status as the biggest maker in Japan of automotive batteries, both conventional lead-acid batteries and also alkali and advanced batteries used in electric vehicles. It also is one of the biggest manufacturers of batteries used in power sports vehicles such as jet skis and ATVs, and of power and lighting systems, with overseas sales accounting for nearly half its revenues.

Yamamoto said he did not expect that use of lead-acid batteries, GS Yuasa's bread-and-butter business, would be phased out anytime soon given the rapid growth in use of motorcycles and cars in developing countries.

But like many other Japanese manufacturers, Yuasa is carving a niche for itself in advanced technology. Just over a year ago, it began construction in Ritto, Japan, of a factory that will eventually have the world's biggest capacity for lithium-ion batteries.

The batteries used in the Dreamliner are built at GS Yuasa's flagship factory in Kyoto, Yamamoto said. Thales Alenia of France is providing the charger equipment, power conversion, standby flight instrument and in-flight entertainment systems.

Early on, regulators acknowledged concerns over fire and overheating hazards from lithium-ion batteries, issuing special precautions for installing them to minimize risks.

In a report on integrating lithium-ion batteries into aircraft systems, Thales researchers describe various protective devices and fail-safes meant to make the technology "perfectly safe."

Illustrating Japan's commitment to the 787, its two main carriers, Japan Airlines and All Nippon Airways, have been Boeing's biggest buyers for the jet, taking 24 of the 50 delivered so far.

The troubles they have seen include leaked fuel and a cracked cockpit windshield. But the most alarming were the incidents involving batteries, including a fire centered in an auxiliary power unit of a Japan Airlines 787 that took firefighters 40 minutes to extinguish.

GS Yuasa's Yamamoto said he was unsure how long the investigation into the problems with the 787 would take. Each day will likely hurt. The company's share price sank another 5 percent on Thursday and is approaching a 52-week low.

Officials of both the Federal Aviation Administration and Japan's aviation authority say they want clear assurances the aircraft can be operated safely before they will allow it to fly.

"This will not be decided by us. The Transport Ministry is in charge," Yamamoto said.

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"But I don't think this is going to be a matter of just a few days. Not quite so soon."

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