

# Construction Equipment Guide

1958 **55** ANNIVERSARY 2013

Northeast Edition

\$3.00



Published Nationally

"The Nation's Best Read Construction Newspaper... Founded 1957."

www.constructionequipmentguide.com

July 17, 2013 • Vol. LIV • No. 15 • 470 Maryland Drive • Ft. Washington, PA 19034 • 215-885-2900 • Toll Free 800-523-2200 • Fax 215-885-2910



A Boeing 747-200 was parked at Newburgh Stewart International Airport, about 60 miles north of New York City, and Aircraft Demolition and Recycling was called to completely dismantle it.

## Giordano Brings Recycling System That Works for Clients

By Giles Lambertson  
CEG CORRESPONDENT

Airplanes don't fly forever, so what happens to them when they no longer are airworthy? That was the question that popped into the head of Chip Giordano a decade ago. He pursued an answer and turned it into a career.

"Where does a plane go when its flying days are done? It goes somewhere," Giordano asked himself and looked for an answer. Today, he is the owner of Aircraft Demolition and Recycling, a Wellington, Fla., company that has taken off like the planes he demolishes once did.

The aircraft harvesting industry is a fledgling one. The industry's oversight organization — Aircraft Fleet Recycling Association — is just seven years old. It accredits members and teaches environmental best practices. Its members either salvage reuseables from old aircraft, or disassemble and recycle the aircraft, or both. The association estimates that 12,000 fleet aircraft will reach the end of their useful lives in the next 20 years.

Before companies like Giordano's — and Aircraft Demolition and Recycling is a leader in the field — old airplanes typically were stripped and recycled by local scrap yards, at least that was true on the East Coast. An old aircraft's owner simply would approach a scrap dealer about taking the carcass of the plane off his hands.

"Without aviation knowledge, the scrap dealer would, for lack of a better word, fumble through it," Giordano said.

Giordano, whose background is in mechanics, not aerospace, brought no particular airplane expertise to the task. What he did bring was a system that worked and has been embraced by customers across the United States.

The system was on display in June in the Hudson Valley of New York State. A Boeing 747-200 was parked at Newburgh Stewart International Airport, about 60 mi. north of New York City, and Aircraft Demolition and Recycling was called to completely dismantle it.

### Not a Small Job

A Boeing 747-200 is 231 ft. (70.4 m) long with a tail that stands 63 ft. (19.2 m) high. The plane's wingspan is 195 ft. (59.4 m) and the wings contain 5,500 sq. ft. (511 sq m) of surface area. A mostly stripped down 747-200 contains about 150,000 lbs. (68,039 kg) of aluminum alloy, 170 mi. (274 km) of wiring and 5 mi. (8 km) of tubing. It is big even by airliner standards and was constructed with redundant structural, hydraulic and control elements.

Most of the planes Giordano reduces to scrap already have been stripped of useful parts, such as hydraulic or electrical components, engine units, or static elements such as seats or wing flaps that can be installed in other still-flying planes. The recycling of such components is a more meticulous process with spe-

cialists called in to supervise the salvage.

"Parts I don't deal with," Giordano said. "Usually by the time I get a plane, all you have left is a hull cluttering up the real estate."

As the age of a plane increases, demand for its salvageable parts diminishes because there are fewer aircraft of that model still in the air.

"A relatively new 747 will be picked clean because the parts are in high demand. They take everything in a new generation aircraft and leave most everything in an older generation plane," Giordano said.

### Equipment Rented

Though Giordano's company is based in Florida, it operates across the country — he offhandedly rattled off 16 states from Pennsylvania to New Mexico, concluding with "...and others." He has a few pieces of equipment parked in a handful of locations, but more often rents what he needs locally.

For the Newburgh job, Giordano called on New Millennium Rentals, an equipment distributor and specialized attachments rental company headquartered in Florida, N.Y. The office of the expanding company is located about 25 mi. from the airport. The company moved there in 2012 from New Windsor, N.Y., so it would have room for more inventory and enhanced ability to provide services to customers up and down the Eastern corridor.

Peter E. Menner founded New Millennium Rentals in, naturally, 2000 after seeing the need for a niche business specializing in excavators equipped with demolition attachments. He had worked with Giordano once previously and this time supplied two Link-Belt excavators, one with a rotating steel shear and the other with a demolition grapple.

New Millennium Rentals operates in three business sectors — demolition of structures (including airplanes), scrap recycling, and environmental recycling and reclamation, such as brownfield clean-ups. To that end, his equipment yard offers excavators with any specialized attachment needed, the excavators ranging in size from 30,000 lbs. (13,608 kg) on up to 100,000 lbs. (45,359 kg).

Whereas other equipment dealers might have grapples and hammers in their inventory of attachments, New Millennium Rentals has those plus rotating steel shears and 85-ft. (26 m) high-reach demolition fronts mounted on excavators. Manufacturers represented and distributed by New Millennium Rentals include Link-Belt excavators, Genesis attachments, BTI hydraulic breakers and Lemac attachments.

For Giordano, Menner delivered an 80,000-lb. (36,287 kg) Link-Belt 330 excavator with a demolition grapple, and a 55,000-lb. (24,948 kg) Link-Belt 250X3 with a rotating LaBounty 200R shear mounted as a second member. The larger machine was used to grab and pull apart the fuselage and wings of the aircraft and the smaller one to reduce the shredded material to truckable proportions.

Though Menner's focus is the East Coast, he

has alliances with other dealers reaching south and west that effectively give him larger yard and service capacity to the Mississippi River. He has met the needs of customers as far away as Texas and Tennessee, for example, and contracted with numerous contractors in the Mid-Atlantic region.

In Giordano, he created a happy customer closer to home.

"It was phenomenal," Giordano said of the short-term arrangement with New Millennium Rentals. "[Peter] Menner is tremendous. I can't say enough. He serves his customers just like I try to serve mine."

### From Airplane to Rubble

The 747 at Newburgh Stewart International had been used in later years for testing engines. Though not flown recently as a passenger craft, it was not as fully stripped as are most aircraft contracted out to Aircraft Demolition and Recycling. It sat on full landing gear, for example, instead of resting immobile on railroad ties. Some fuel needed to be drained, some extinguisher bottles emptied, and so on.

"That's not normally what I do on one of these jobs," Giordano said, "so it required additional prep work."

Even aircraft that have had useable parts removed in advance still contain materials of no use to Giordano. He is only interested in recyclable metals, so he sends a crew of four people to remove any remaining non-metals. This includes such materials as molded overhead bin structures, cushioning in seats, carpeting, and insulation. This final strip-down usually takes five full days.

At Newburgh, Giordano positioned the larger Link-Belt excavator near a targeted section of the 747's fuselage (and it almost invariably is Giordano at the controls; his crew performs other tasks while he systematically takes a plane apart). He extended the boom of the excavator and punched through the plane's aluminum alloy semi-monocoque shell with the fingers of the grapple, and started ripping.

It sounds like child's work — tearing apart a toy just for fun — but the tearing apart is systematic and wedded to experience gleaned from hundreds of previous dismantlings.

"Over time," said Giordano, "you learn the aircraft and come to realize there are certain ways to cut up certain aircraft. I have done 375 to 400 airplanes and I know an Airbus is a lot different than a Boeing. Planes are put together a particular way and so I cut a plane from a particular angle, this way and not that way."

After he wrenched off several pieces of the 747, he climbed down from the larger Link-Belt into the smaller one and began to use its shear attachment to reduce the chunks of crumpled metal to smaller chunks. Eventually these are loaded onto trailer-trucks and hauled away. The downsizing is important because a piece of aircraft weighing a thousand pounds can take up a third of a trailer if it isn't chunked.

"For me, weight is everything," said Giordano.

As he rips and cuts, the two other people in his crew perform separate functions. One operates a skid steer — typically a Bobcat with an 84-in. (213 cm) demolition grapple bucket — and constantly moves shredded and chunked plane material to a common loading point. The other crew member operates a backpack blower and continually blows debris and tiny shards of metal to a central area for eventual vacuuming and loading.

The cut-up material that used to be an airplane is carted away on trucks that are contracted by a broker who arranges for sale of the metal.

### A Tidy Recycler

"Attention to detail has made the company famous," Giordano said. "We bag up insulation as we strip it out. We blow small pieces of material together, rather than having it blow all over the airport. The airport grounds aren't all messed up. The system meets the concerns of airport authorities and operators."

Both visual and functional concerns are abated this way. In highly visible situations — for example, when a burned out cargo plane in an East Coast airport was parked 200 ft. from an active runway and 100 ft. from an active taxiway — the demolition not only needs to be done quickly but without pieces of the demolished aircraft becoming hazards to passing airliners. Phased out planes "way back in the corner" of an airport property are less stressfully removed.

The company's clients range across the aviation spectrum. Some are aircraft operating companies, others are airport authorities. Some military units have contacted with the company to remove a plane, and Giordano also works with large leasing companies who need to get rid of winged inventory.

Independent parts supply companies that salvage aircraft components contract with Giordano to get rid of the stripped hulk. A plane in Rochester, Minn., for example, was bought for its parts, including its engines and awaits the arrival of the Aircraft Demolition and Recycling team.

Giordano speculates that in 2012 he removed more grounded planes than any other industry member in the United States. The work is steady because he has standing accounts with companies. One customer contracts with him for 25 to 30 planes a year, another 18, another seven and so on.

Asked if his company is a demolition firm or a recycling firm, Giordano laughed. He admitted sometimes there is a gray area in the industry between disassembling a plane and recycling the parts and materials of a plane, but added that "I don't disassemble, I decimate. I consider myself a recycler."

By whatever description, the company is flying high.

(This story also can be found on Construction Equipment Guide's Web site at www.constructionequipmentguide.com.) CEG