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Rugged-Duty Actuator Enhances State-of-the-Art Pool/Spa Lift



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The Swim-Lift Traveler II XRC500 was redesigned with a 500-lb. capacity for aquatic physical therapy and rehabilitation.



The benefits of aquatic physical therapy and rehabilitation for those who have difficulty with weight bearing activities due to arthritis, injury or those who are overweight have long been known.

There is also a significant population of wheelchair-bound and disabled persons who use pools and spas for recreation or therapeutic purposes. A dilemma for these individuals is how to get in and out of the pool or spa safely.

Various manufacturers offer pool lifts ranging from simple manual slings or lifts powered with water pressure to commercial-grade, battery-powered lifts operated with radio remote control.

Spectrum Products of Missoula, Montana, has recently elevated the state-of-the-art in battery-powered lifts by fitting its top-of-the-line Traveler II XRC500 unit with a 500-pound capacity linear actuator that was specially designed for the application by Warner Linear of Belvidere, Illinois.

The electric linear actuator provides the lifting action of the chair that is raised or lowered into or out of the water.

After two years of joint design and development, Warner Linear and Spectrum Products introduced the new, robust control system in mid-2008, making it the strongest remote-controlled, battery-powered lift on the market. The proprietary system is now standard on all of Spectrum's battery-powered assisted access lifts.

For the Spectrum lifts, Warner modified its rugged-duty K2x actuator by redesigning its gear ratio to 30:1 which is able to achieve greater lift load capacity combined with slower speeds that give the user better control over the motion of the occupied chair.

Warner also designed a new wireless remote control unit including transmitters, receiver, 24-volt battery pack that plugs into the receiver, plus a battery charger. The powerful, compact battery pack provides more than 95 lifts between charges, rather than the 40 lift capacity of the units previously utilized.

The actuator itself, originally designed for demanding applications in harsh environments such as off-highway vehicles, replaced competitive units that were originally designed for lighter duty applications such as hospital beds and adjustable desks.

"The actuators we used previously were made with a thin, lightweight aluminum sleeve and the slightest dent would render them useless," said Spectrum President Gerald McConnell. "They were

our single biggest customer service issue. The new (Warner Linear) actuators are much more robust. We've devoted a whole page on our website to the actuators, which is the first time we've done that for anything but our products themselves."

Several upgrades in the actuators now used on the Spectrum pool lifts include:

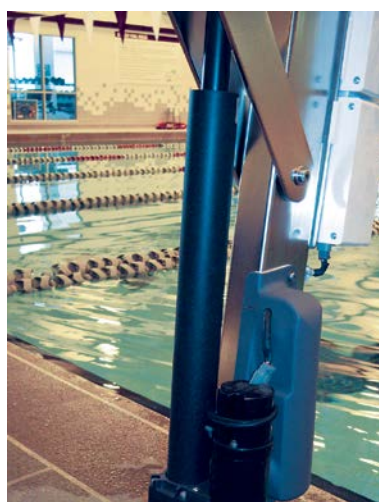
- Double the wall thickness of both cover tubes and extension tubes,
- O-ring seals rather than gaskets for longer service life,
- Die cast aluminum housings and powder coat urethane finishes rather than plastic housings,
- Hardened gears and ball bearings for rugged-duty usage.

The unit offers 2.5 times the corrosion resistance of previous units... a critical benefit in corrosive poolside environments, according to the company.

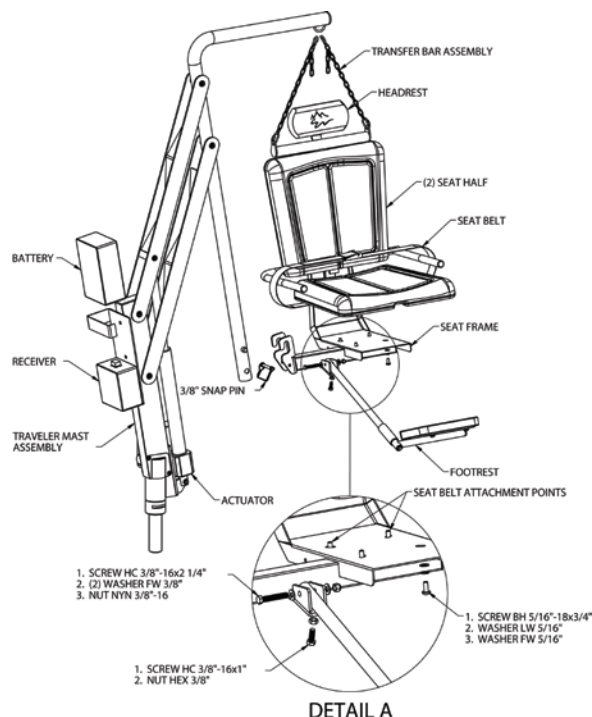
The reliability of the Warner Linear actuator, in addition to enhanced performance, was key to the decision to switch actuator suppliers, according to Ben Tiffin, Spectrum Manager of Engineering.

"With previous units we were experiencing an unacceptable failure rate with no resolution in sight from the vendor," Tiffin said. "So far with the Warner units, we haven't had a single failure. That's significant to us because we pride ourselves on quality and customer service. I've tested a lot of competitive units on the market and the Warner Linear actuator is by far the best."

The Traveler II swim lifts are ADA/ABA compliant for use in hospitals and rehab facilities, universities with sports medicine programs, commercial therapeutic spas and pools, municipal pools, hotels, health clubs, or even for home residential use, according to Spectrum. Several states have passed regulations requiring assisted access lifts for pools and spas in commercial establishments.



For Spectrum Products' aquatic access lifts, Warner Linear redesigned its K2x linear actuator with a 30:1 gear ratio, which provides better user control over the motion of the occupied chair.



About Altra Industrial Motion

Altra is a leading global designer and manufacturer of quality power transmission and motion control products utilized on a wide variety of industrial drivetrain applications. Altra clutches and brakes, couplings, gearing and PT component product lines are marketed under the industries most well known manufacturing brands. Each brand is committed to the guiding principles of operational excellence, continuous improvement and customer satisfaction. Highly-engineered Altra solutions are sold in over 70 countries and utilized in a variety of major industrial markets, including food processing, material handling, packaging machinery, mining, energy, automotive, primary metals, turf and garden and many others.

Altra's leading brands include Ameridrives, Bauer Gear Motor, Bibby Turboflex, Boston Gear, Delroyd Worm Gear, Formsprag Clutch, Guardian Couplings, Huco, Industrial Clutch, Inertia Dynamics, Kilian, Lamiflex Couplings, Marland Clutch, Matrix, Nuttall Gear, Stieber Clutch, Stromag, Svendborg Brakes, TB Wood's, Twiflex, Warner Electric, Warner Linear and Wichita Clutch.



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