Flexing Muscles in a New Year

by Ricia Sturgeon-Hendrick

As I’m writing today, we are just a few days into 2018 and looking forward to a new and better year. The construction and elevator industries enjoyed a stellar 2017, and executives polled by Engineering News-Record (ENR) believe growth will continue this year. ENR’s Construction Industry Confidence Index rose five points to 71, based on the last quarter of the year. Even more important for vertical transportation (VT), more skyscrapers were started in 2017 than ever before.

As resolved on New Year’s Eve, I have been to the gym every day (four) so far this year. My focus is building up some muscles ( . . . just any muscles). The focus of ELEVATOR WORLD this month is also the “muscles” of the VT system — Machines and Drives. The cover is from last month’s Project of the Year winner in Elevators, New Construction: Lotte World Tower in Seoul. It is rare to get a shot like this that so perfectly illustrates our Focus Topic. In the lead feature, Form Meets Function at the Centro Botín by Antonio Pérez Luzuriaga, the drive is central to the story. This beautiful museum in Santander, Spain, was designed by architect Renzo Piano and has VT to match. The 30-T. lift carries both passengers and large artwork, and is vented to the exterior to control temperature inside the building. It has its own air-conditioning unit and offers passengers views of the bay. The building’s architect wanted no penthouse protrusion on the roof, and its position next to the bay ruled out a basement machine room. So, the muscle moving this beauty is a machine-room-less drive by IMEM.

Also within our Focus Topic is a celebration of Torin Delivers Millionth Machine by our China correspondent, Peng Jie. More than 300 guests joined Zhang He, chairman of Suzhou Torin Drive, to celebrate the manufacture and delivery of the one-millionth machine. This was a 32-year accomplishment.

We have two excellent papers from Elevcon to accompany our topic. The first is Development of a Holistic Solution for VVVF Drives by Dr. K.M. Tsang, Dr. W.L. Chan and Dr. Albert So. The authors note that the use of variable-voltage, variable-frequency (VVVF) drives is the industry norm, despite inefficient braking and issues with voltage dips from weather. Their suggestion is regenerative braking, which saves energy and is not subject to voltage dips. The second paper from Elevcon is Gearless Motors: A Sealed Spherical Roller Bearing With Improved Performance by Jerome Pommereul. SKF developed a sealed bearing that supports energy-saving features of elevator motors and reduces friction by 20%, thereby reducing the operating temperature.

We cover several events this month. Louis Bialy traveled to New Delhi for the ISO/TC 178 Plenary Meeting, where he reports there were 46 attendees from 16 countries. Retiring Chair Christian De Mas Latrie noted that the installed base of elevator equipment now exceeds 15 million units. Dr. Gero Gschwendtner was nominated as new chair. Across the planet, John Gale attended First Warsaw Congress, with a focus on education. Gale provided a synopsis of many Elevator World, Inc. books for consideration.

We are very glad to have a new contributor, Mohammad Hadjzaman, an engineer and technical editor of the Iranian magazine Donya-ye Asansor. He provided us with an excellent paper, Traction Elevators: A Comparative Study on Wire Rope Stretch, which is our first Continuing Education article of the year. In it, he evaluates wire-rope stretch in new installations and how construction and composition of the rope affects its elasticity.

The Need to Innovate by Matt Irvin is a Company Spotlight on Pixel Technologies, an Australian manufacturer of touchscreens, visual displays and two-way videos for elevators. The latter allows a passenger to speak face to face with an emergency responder. Fabio Liberati writes that, in Italy, Growth Is Back! Here, he gives the latest market statistics that give the Italian VT industry reason for what he calls “cautious optimism” following a rough decade.

On the lighter side, our Industry Profile this month is on Craig Zomchek, who has Rockstar Energy, according to Kaija Wilkinson. Zomchek is the new president of the National Association of Elevator Contractors and also a cyclist, poker player, hospital volunteer, former punk-rock record producer and current president of Colley Elevator. Where does this second-generation elevator man find the time?

Keep reading — there is much more in this issue!