

Machinery Innovation for Quality of Life

In this issue of "Transportation Builder," the Association of Equipment Manufacturers (AEM) joins ARTBA in celebrating innovation in our industries and how manufacturers and contractors provide the highest quality of life people have ever enjoyed.

Every day, builders and contractors are using equipment to create necessary and elegant transportation structures. New bridges often resemble works of art as much as they are practical and essential for efficiency in surface transportation.

In the equipment manufacturing universe, innovators draw on many surprising resources for their ideas. One such innovator is LeRoy Hagenbuch, P.E., co-founder and president of the engineering firm Phillipi-Hagenbuch, Inc., based in Peoria, Ill., and an AEM member company.

Hagenbuch, credited with more than 80 patents, was inducted into the AEM Hall of Fame in 2008. An adequate list of his contributions to our high quality of life could fill pages of this magazine. His thoughts on innovation and product development deserve our attention.

"The inventor is out in front of the crowd looking at situations and seeing solutions," Hagenbuch says. "But if an idea cannot be produced for commercial purposes, manufacturers will not want to make it. The goal is not just theoretical solutions, but real, workable solutions."

Many of Hagenbuch's innovative solutions have certainly been commercially embraced. "Our technology for onboard weighing is used by almost all the major manufacturers of off-road trucks," Hagenbuch said.



Innovator LeRoy Hagenbuch

How does a would-be engineer choose a discipline to prepare for a career of such innovation and creativity? Hagenbuch grew up on a farm where the independent farmer-small businessman needs to know something about everything. He says the answer is to avoid specialization.

"The best engineer is a generalist," Hagenbuch said. "How many people truly stay in civil, electrical, or chemical engineering for their whole career?

Very few. My advice is to be as general as possible. My degree was in ag engineering and because of that I was exposed to all the engineering areas and became well rounded rather than overly specialized."

With his knowledge of all aspects of engineering—gears, linkages, lubricants, fuels, soil analysis, electricity, etc.—
Hagenbuch had the ideal background for inventing and innovating.

So how does an entrepreneur such as Hagenbuch get the attention of manufacturers? He said he prefers face-to-face meetings, such as the CONEXPO-CON/AGG trade show, which takes place every three years in Las Vegas. "CONEXPO-CON/AGG has three values for our company: customers—meeting and talking with existing customers and developing new ones; and introducing new products; and staying abreast of the industry while looking for new ideas from other disciplines that we can apply to our products."

For contractors to compete they need innovative new products as well. AEM's more than 850 member companies and CONEXPO-CON/AGG'S more than 2000 exhibitors have what you're looking for. Check it out at www.aem.org and www.conexpoconagg.com

Association of Equipment Manufacturers (AEM) provides trade and business development services for companies that manufacture equipment, products and services used world-wide in the agricultural, construction, forestry, mining and utility sectors.

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