

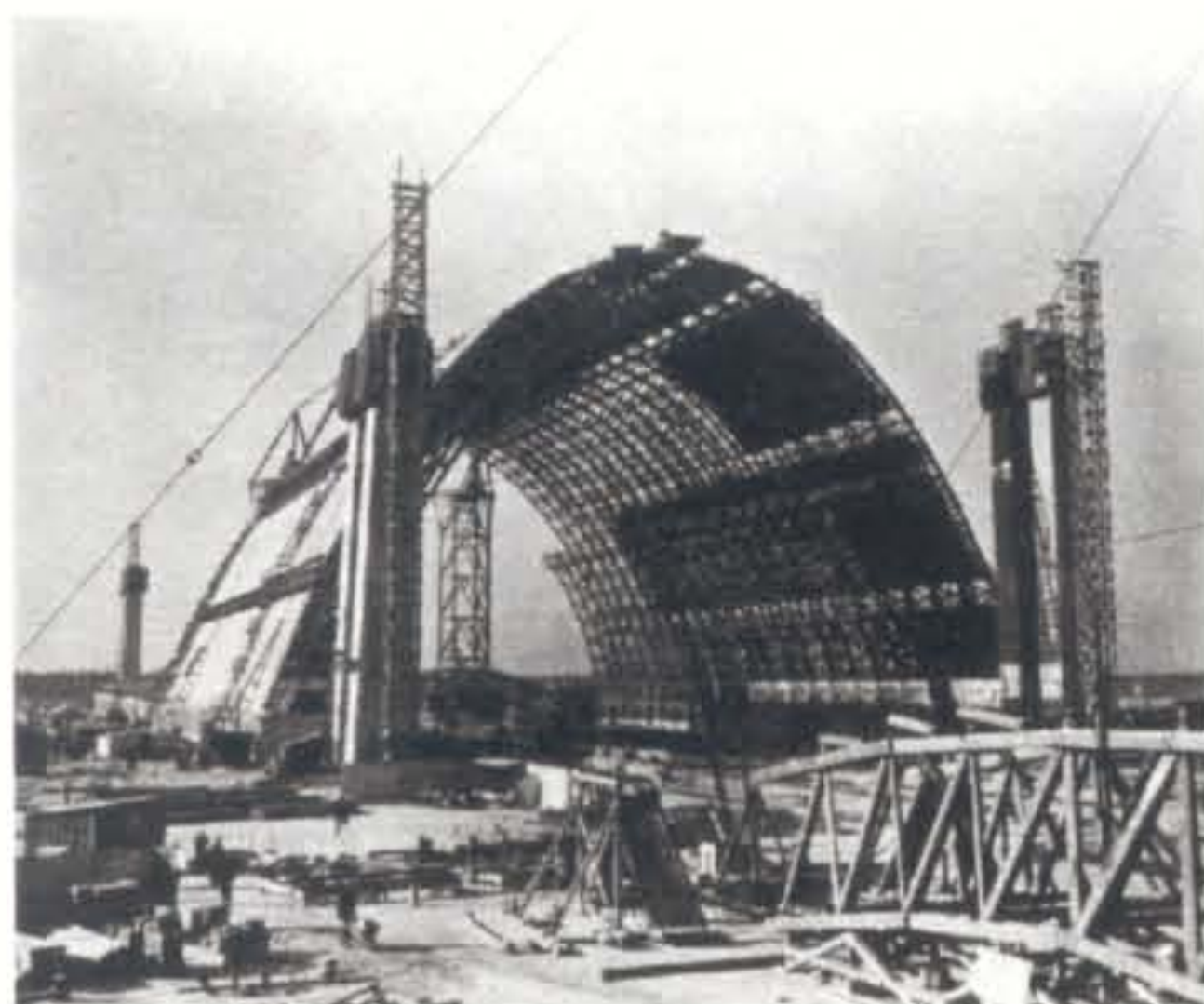
Wood put to work

This year TECO celebrates 75 years in business and chairman and ceo Steve Winistorfer looks back at where today's certification agency came from and where it is going now

TECO is currently recognised as a premier certification agency in areas of the world where wood based panels are manufactured or used for structural purposes. Yet for several previous generations of architects and engineers in North America, 'TECO' was the 'Timber Engineering Company.'



Wooden bridge over half of the Columbia River near Cathlamet, Washington. A 2,433-foot-long bridge built in 1938-39 and opened in 1939, used over 24,000 TECO split-ring connectors



Construction of a wooden-arch blimp hanger for the US Navy. Seventeen such blimp hangers were built during World War II

It was synonymous with innovation in heavy timber research and design, education in the use of timber in structures, and metal connectors that were the glue that held together impressive wooden structures.

TECO – formed as the 'Timber Engineering Company' in Washington DC in 1933 – turns 75 years old this year and milestones such as this are not only a reason to celebrate, but a cause to reflect on what is a proud legacy.

Throughout the US in the 18th and 19th centuries, cutting or burning timber to create farmland for a new and growing country had devastated much of the forest-

land across the continent. By the late 1800's, the forest conservation movement (led by such notables as Gifford Pinchot) had parted ways with those of the preservationist movement (like John Muir) over the proper direction that stewardship of the land and forest should take.

Pinchot's view was that natural resources like the forest should be managed properly so they would be available for commercial use, while Muir opposed the commercialisation of nature. Even though disagreeing, both men opposed unfettered exploitation of the nation's natural resources.

In several ways, the legacy of both men is cemented into the history of the US and its natural resources. For Muir, Yosemite National Park (in California) and the Sierra Club (an environmental organisation formed by Muir in 1892 and which still exists today) serve as constant reminders of the importance of resource preservation.

Pinchot was the first chief of the USDA Forest Service, taking the post in 1905, and today the Forest Products Laboratory in Madison, Wisconsin (the US government's primary research laboratory for wood and wood products) is located on a street named after him. Pinchot spoke up for conservation and management of the forest resource so that it would be available for current and future generations.

It was during this time, in the late 1800's and early 1900's in the US, that many regional lumber manufacturing associations were formed to help protect and promote the interests of lumber manufacturing companies.



Inside the machining area of TECO's first laboratory in Washington DC, circa late 1940's

PANEL PERSPECTIVES

Regional associations such as the Southern Lumber Manufacturers' Association and the Mississippi Valley Lumbermen's Association, realised that what was lacking was a national association which could represent the interests of the entire industry in Washington DC.

In 1902, the National Lumber Manufacturers' Association was formed from several of these regional associations.

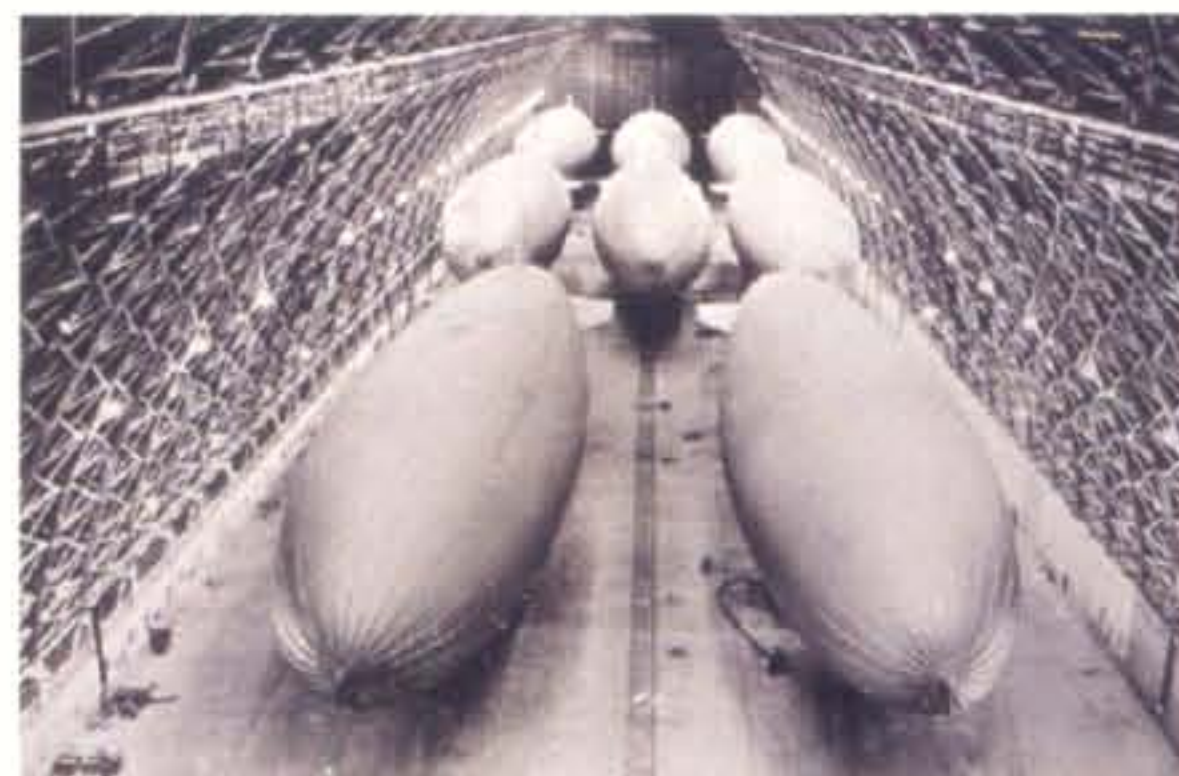
In 1918, Wilson Compton was named general manager of NLMA – a role he filled until 1944. Compton – who earned a PhD in history, politics and economics from Princeton University – used his experience as an economics professor at



Assembling a timber joint with a TECO Wedge-Fit split-ring connector

research on how heavy timber could be better utilised and to develop methods and procedures to put that research to use. For these reasons, Wilson Compton is recognised as TECO's founding father.

It was already known that the connections holding individual pieces of timber together were a critical part of any wood structure. Recognising the importance of such connections to expanding the use of timber, TECO purchased the rights to a



Interior of the US Navy blimp hanger at Tillamook (Oregon) Naval Air Station, one of the few of the original seventeen that is still standing

split-ring connector from a German manufacturer in 1934. What followed were almost three decades of innovation into the properties and possibilities of timber, different types of mechanical connectors, and how the two together could transform the utilisation of timber.

Early examples of TECO's research and development efforts include design and construction of timber water towers, highway bridges and industrial structures.

Yet one of the most impressive displays of how wood and metal were joined to create timber structures is found in the blimp hangers that were commissioned by, and built for, the US Naval Air Stations during World War II.

There were a total of 17 wooden arch blimp hangers erected by the US Navy at

that time, each containing over two million board feet of timber. The first two prototypes were erected at the Lakehurst Naval Air Station in Lakehurst, New Jersey. Incidentally, Lakehurst Naval Air Station is historically significant because it is where the German airship Hindenburg crashed in flames on May 6, 1937.

According to Rick Zitarosa, historian of the Navy Lakehurst Historical Society, these wooden-arch blimp hangars were quite a marvel for their day, rising to a height of well over 150 feet and providing a clear opening of 240 feet or more, and were the subject of considerable discussion in engineering trade papers.

Structures such as these exemplified how TECO's work – providing information on how heavy timbers would perform, as well as designing and manufacturing the split-ring connectors that held everything together – contributed to conservation and architecture in the US.

During the same time period, yet for structures on a much smaller scale, a TECO engineer named Everett Lank designed a new generation of lightweight wooden trusses for use in residential construction. He was issued with a patent for the Lank-TECO Truss, which was an early version of what is now the metal plate-connected wooden truss. Lank was again fulfilling TECO's mission of utilising the forest resource more efficiently.

The TECO of today continues the legacy of innovation which began more than seven decades ago, yet has adapted to the changes of the 21st century.

The adoption of the use of dimension lumber and sheathing (such as OSB, particleboard and plywood) for light frame construction has spread beyond North America and therefore beyond TECO's original sphere of influence.

The world has become a smaller place and wood has been transformed into a global commodity.

There are now manufacturers all around the world with the resources and capability to serve the major wood consuming markets in North America, Europe and Japan.

As the manufacturing base for structural wood products has become globalised, and even accelerated in the past decade, TECO has evolved to become one of the few third-party agencies which has demonstrated the will and flexibility to evolve with the industry.

As the current staff of TECO celebrate 75 years of innovation and leadership in the structural wood products industry, that legacy comes with a responsibility to honour the past, while striving for another 75 years of success. □



TECO advertisement displaying industrial structures utilising TECO Wedge-Fit connectors

Dartmouth University, and from work within the US Federal Trade Commission, to make NLMA into an association with great power in Washington DC.

In the late 1920's, timber was still the predominant building material used throughout the nation, but Compton believed that the industry needed more and better technical information about timber for construction. This would allow architects and engineers to design and build bigger and better structures from wood; that is, to better and more efficiently utilise the wood resource as Pinchot had envisaged decades earlier.

Consequently, on January 16, 1933, NLMA formed the Timber Engineering Company (which later became known as 'TECO') as a wholly-owned subsidiary.

TECO's mission was simple: as the technical arm of the nation's structural wood manufacturing industry, to conduct