Case Study
Brookville Equipment Corporation’s Modern Streetcars
Made with pride in Pennsylvania, USA
Liberty Streetcar a product of collaboration, innovative technology, and materials.

The Liberty Streetcar debuted in March, 2015 when Brookville delivered the first off-wire capable streetcar to the Dallas Area Rapid Transit. This marked a major achievement in the company’s 97-year history as the first American designed and manufactured off-wire capable modern streetcar manufactured for a US transit agency. The two cars are in operation in Dallas on the new four-stop line that runs 1.6 miles between Union Station and the Oak Cliff neighborhood. The Union Station hub connects DART’s light rail system and the Trinity Railway Express with service to Fort Worth.

The Liberty streetcar utilizes innovative technology, design, and materials that meet DART’s critical project requirements. The streetcar needed to be as energy efficient and accessible as possible with the latest in balance and crash safety technology, and notably, there could be no overhead wire crossing the one-mile historic Houston Street Viaduct. The car interior materials had to be lightweight, aesthetically pleasing, resistant to graffiti, and meet strict regulations for flammability and safety.

The Liberty includes a fully integrated onboard energy storage system (ESS) that powers the streetcar when it is off wire over the bridge and the partial low floor design offers station-level boarding for accessibility and accelerated loading and unloading of passengers. Brookville chose thermoplastic KYDEX® 2200 for the interior panels over other materials because it met all the safety requirements, is lightweight, and has refined aesthetic.

KYDEX® 2200 is manufactured by SEIKISUI SPI, a Pennsylvania-based thermoplastic sheet design and manufacturer with decades of experience supplying and collaborating with the mass transit industry. The KYDEX® 2200 panels were
Brookville Equipment Corporation began manufacturing gasoline and diesel powered locomotives in 1918 as Brookville Locomotive Works. They also produced specialty rail equipment including school buses, refrigerated cargo haulers, bullet-proof pay cars, and ambulances. Today, Brookville produces a full line of customized rail-mounted or rubber-tired haulage machines for underground mining, tunnel construction, industrial and switching applications, and mass transit applications used around the world.

www.brookvillecorp.com

About SEKISUI SPI
SEKISUI SPI is a global thermoplastics leader that is changing manufacturing for the 21st century by challenging how to think, design, and create as a master supplier. Fueled by a team of dedicated professionals, SEKISUI SPI serves customers in 34 countries across a diverse spectrum of major industries including aviation, transportation, agriculture, heavy equipment and industrial equipment housings. With the collective power of KYDEX® and ALLEN® thermoplastics product brands, we provide a unique understanding built on deeper perspectives, resulting in better solutions for all. SEKISUI SPI is part of SEKISUI Chemical Company, an $11 billion global leader in plastics and chemicals. www.sekisui-spi.com

About Magee Plastics
Magee is a premier manufacturing company with strengths in custom engineering and certification, serving the OEM and refurbishment markets in a variety of industries with top-quality components and interior products made from thermoplastics and composites. www.mageeplastics.com

*Light Rail & Streetcar Systems: How They Differ; How They Overlap, APTA, as found July 2015, www.apta.com

thermoformed into the interior components by Magee Plastics, also located in Pennsylvania. Brookville realized project efficiencies and shipping costs by collaborating with suppliers and vendors in close proximity.

A commitment to American cities and US manufacturing

The new modern Liberty Streetcar was designed and built by Brookville’s experienced workforce in Brookville, PA. Their commitment to US manufacturing and manufacturing in Pennsylvania also extends to the supply chain: over 95% of their suppliers operating within the United States and 55% of the components Brookville purchases are sourced in Pennsylvania.

The Street Car Movement

In the mid-1970s, there were only nine metropolitan areas operating streetcar or light rail systems in North America including Boston, Cleveland, Newark NJ, New Orleans, Philadelphia, Pittsburgh, and San Francisco. Now, there are over 30 completely new regional light rail systems and over 10 streetcar systems. Streetcars largely serve as urban circulators, connecting neighborhoods and activity centers with lines that are about two to five miles long and have stops less than a half mile apart. In contrast, most light rail systems usually provide regional service between suburbs and business districts with 15-20 mile lines with stations a half mile apart.* Municipalities are reintroducing streetcars and other light rail systems to make the streets and neighborhoods they run through more vibrant and pedestrian friendly, while providing an alternative to driving, critical ‘last mile’ transportation, and connections between neighborhoods and major transportation hubs.