

Gomaco Trolley Company Manufacturers of Authentic Trolley Cars

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Gomaco Trolley Company, located in Ida Grove, Iowa, USA, is a manufacturer of authentic vintage trolley cars which match the precision and quality craftsmanship of yesterday while incorporating the state-of-the-art technology of today.

Gomaco can provide you with trolley manufacturing and engineering consultation on restoration or renovation of existing trolley cars or in the manufacturing of new trolley cars.



Restoration and Modernization

Gomaco Trolley Company specializes in the restoration, renovation, and modernization of existing trolley cars.

Gomaco Trolley Company was awarded a bid to restore three flood damaged trolley cars from Galveston, Texas. Below is the second car to arrive at our plant in Ida Grove, Iowa, car #502.



Restoration included, but was not limited to:

- Rebuilt Milan trucks from our stock
- Pneumatic friction brake system and electromagnetic rail brakes
- New diesel engine and generator
- New low-voltage, solid-state control and computer controller system
- Exterior repair and paint
- Repair or replacement of any damaged hardware
- Interior wood and paint work refinish

Trolley car #502 reconditioned and in operation in Galveston, Texas.





Same Trolley Car, Dramatic Reinvention





Conversion highlights of this project:

- Door configuration for loading from either side Seating to open configuration
- Battery power for offline operation
- Pantograph for battery charging and online operation
- Solid-state, low-voltage control system
- \cdot Safe-state braking system

Manufactured Replicas

Gomaco Trolley Company takes pride in the craftsmanship that goes into every trolley that we manufacture. Our goal is to keep the trolley cars as authentic as possible and to match the quality workmanship that went into the trolleys of the past. The framework is built with steel. We create authentic brass parts from our foundry and beautiful woodwork from our highly skilled carpenters.

We aim to improve the quality, safety, and reliability of the cars through the adaptation of modern manufacturing methods and additional technology.



Taroko Park trolley car #ML666, Kaohsiung, Taiwan. Center: Ornate brass pieces made at our in-house foundry and the benches made of alternating oak and cherry hardwood.







Lighting allows passengers to easily see while getting on and off the trolley.

Replicating Birney Style Trolley Cars



Gomaco Trolley Company built its first replica Birney trolley in 1999, and delivered it to its home in Tampa, Florida, in February 2000.

Each Birney trolley can be replicated to the history of its city. They can be custom built to match the exact number of windows, seating style, exterior paint colors and more. Or if Birneys are new to your city, Gomaco Trolley will help you customize a unique trolley to match your city's own distinct style.

Gomaco replicates the authentic look of the Birney, while creating a state-of-the-art trolley car that is fully compliant with all Federal Transit Administration (FTA) and Americans with Disabilities Act (ADA) regulations. Built-in safety features include emergency stops at the operator locations and integrated safety door locks ensuring the car will not move if a door is open.

The Birneys are controlled by the Gomaco proprietary K35G IGBT (insulated gate bipolar transistor) controller with PLC (programmable logic controller) system management. Available modernization features include:

434

• HVAC

434

- · RFID control interface
- Rail brake integration with emergency stop
- Safe-state braking
- · Camera and DVR systems
- Dynamic and regenerative braking
- Operator vigilance systems

Gomaco Trolley Company also has a range of selfpowered solutions including battery, diesel, and hybrid systems.

Hillsborough Area Regional Transit

92

Handicapped/Wheelchair Accessibility

Accessibility is an important aspect in today's transportation system. Gomaco Trolley can equip your trolley with one of several different styles of wheelchair lifts. Car #1717 below is built with a hideaway wheelchair lift. The lift stays under the car and out of the way for general passenger boarding. When needed, the conductor activates the controls for the lift. It unfolds from underneath the trolley, transports the passenger into or out of the trolley and then retreats again.

The interior of the trolley can also be designed to accommodate wheelchairs with the proper safety requirements to ensure a safe and enjoyable ride.



Modern Controls with Vintage Appeal

The operator's station is where old-time craftsmanship and the latest technology available merge to create a station for the operator that is both easy and safe to operate. The station has been designed for visibility inside and out, while keeping all operating controls within reach.

Gomaco's replica and reconditioned trolleys can be equipped with a K35G IGBT (insulated gate bipolar transistor) controller and a PLC (programmable logic controller) system management to control speed and monitor power consumption. It allows the cars to travel at any speed between zero and 35 miles per hour and it will maintain that speed for an indefinite amount of time. It includes a system diagnostics recording that can be used for troubleshooting analysis. And, with its GPS compatibility, the car location and speed can be tracked from rider kiosks or for dispatcher's monitoring.



K35G controller

Custom-Built Parts from Gomaco Trolley's Foundry

Gomaco Trolley Company can create brass parts to meet all standard trolley requirements. Gomaco Trolley Company has its own in-house brass foundry to create authentic brass parts using a sand casting process.

If you need to restore or renovate a trolley, or if you are a collector of trolley memorabilia, you can order any one of hundreds of single parts or a complete trolley assembly. Gomaco can provide you with mechanical and electrical assemblies as well as various pneumatic circuitry.



Ornate custom-built brass pieces



Solid brass conductor bell



Custom-designed hand grab



Gomaco Trolley Company was founded in 1982 with a contract from the United States Department of the Interior. The contract called for the construction of two 1902 J.G. Brill, 15-bench, open-style trolley cars. These two trolleys would be the first of their kind to be constructed since the turn of the 20th century. A black and white photo of the original 1902 trolley was sent to Gomaco, and our engineers and craftsmen designed and constructed the cars from that photo. In 1984, the trolleys were delivered to the Lowell Historical National Park in Lowell, Massachusetts. They continue to be in use today, in the 21st century.

Gomaco Trolley Company's success can be seen riding the rails from coast to coast in the United States and Taiwan.