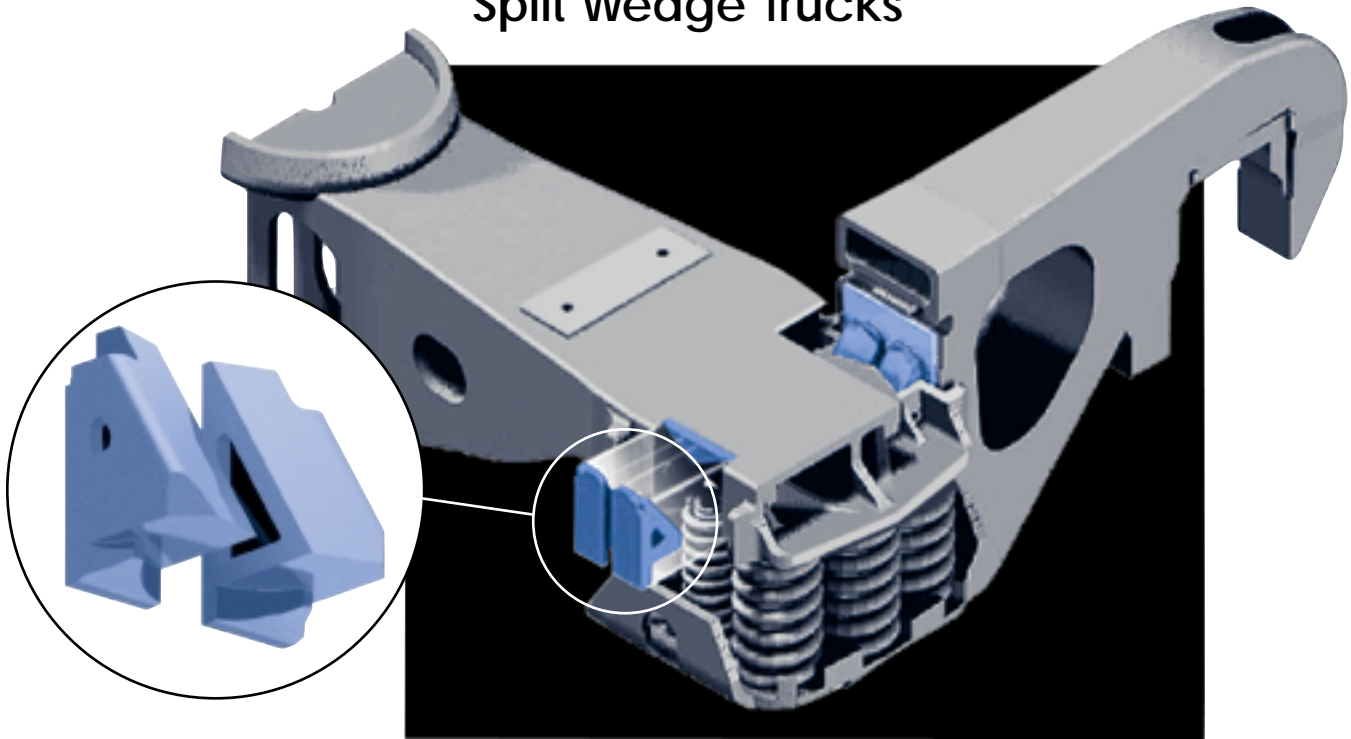


## Split Wedge Trucks



The major components of the truck assembly consist of a truck bolster, two side frames and two wheel and axle assemblies. The truck bolster is the main transverse member that transmits car body loads to the side frames through the suspension system. It is suspended on load springs that are nested in the side frames. In turn, the side frames transfer the load to roller bearing adapters that are supported by the wheel and axle assemblies. The truck is controlled by the stabilizer or “snubbing” system. The snubbing system controls the vertical and lateral movement of the truck assembly and determines the overall ride of the car.

### Challenge

When underway, a truck may turn in relation to the rails and begin to try to find its center. The flange of the lead wheel in the assembly can strike the rail, causing the truck to turn in the opposite direction until the other wheel's flange strikes the rail. As the speed of the train increases, the right-left-right motion can increase in frequency. “Truck hunting,” as this condition is known, can cause premature wear on a car's wheels and other components.

### Solution

Union Tank Car Company has selected the Split-Wedge Truck as an approved standard for new car production. This truck utilizes a wedge-shaped insert that is welded into the bolster pocket to act against a pair of split friction castings. Underway, train dynamics working against the springs drive the split wedges to the inside and outside walls of the bolster pocket. This continually aligns the side frames and squares them with the truck bolster, giving the truck a higher hunting speed threshold than a similar truck with standard friction wedges.

### Benefit

Split wedge trucks have been proven over millions of miles of unit train service to reduce wheel and truck component wear. For the fleet manager, that means less out-of-service time, less frequent car shopping and, as a result, reduced life cycle costs.



**Union Tank Car Company**

A member of The Marmon Group of companies