

## CUSTOM DESIGN SOLUTIONS

### COMMITMENT TO INNOVATIVE, ENGINEERED SOLUTIONS

Strato is committed to being a problem solving resource for the railroad and transit industries. We have taken a proactive approach towards developing custom design solutions that are continuously helping our customers to drive velocity, reduce costs and improve safety. Whether it's redesigning existing products such as yokes to improve strength and life span, helping find solutions to costly industry wide problems like undesired hose separations, or developing customized products to help solve your individual problems, Strato is ready for any challenge. Our commitment to innovation and leadership in product design and development is helping drive the railroad and transit industries into the new century.

*The following case study on sill conversion engineering and product development is an example of Strato's ability to solve a customer problem and provide custom design solutions:*

#### Initial Car Conditions:

- To limit inter-car travel during service, the cushioning units were compressed to the full buff position and blocked or welded there to prevent travel.
- Without cushioning or draft gear protection, train forces have resulted in several instances of train separation due to yoke failure.

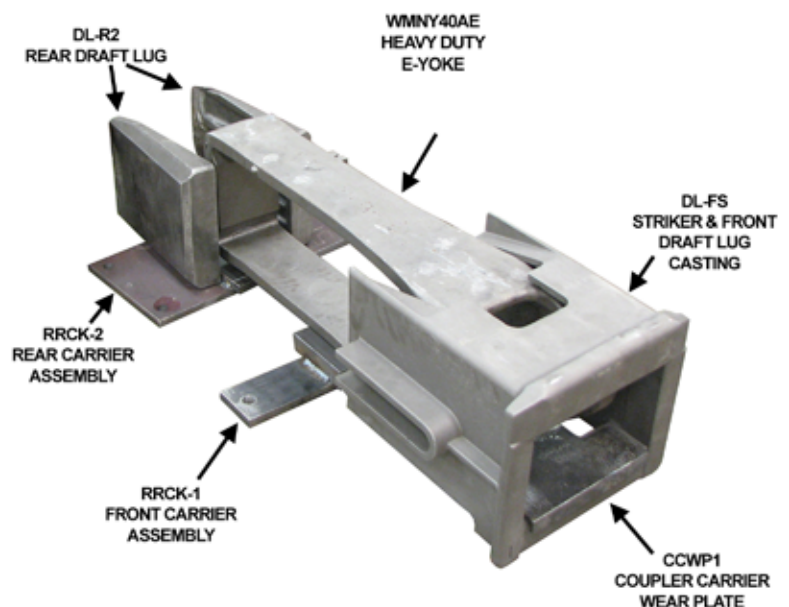
#### Problem/Desired Solution:

- The customer was seeking to remove the blocked-out cushioning units and to convert the sill pockets for installation of a draft gear system.

#### Strato Engineering Services Performed:

- Engineering visits to site for preliminary design analysis and information gathering.
- All strength, weld and stress calculations and analyses performed and verified. Custom components designed to fit application included striker, draft lugs and carrier plates.
- A single piece striker and draft lug combine several parts into one casting, reducing labor costs and ensuring consistency.
- Strato provided suggested car modification details and Strato component application details..
- Performed onsite installation training and verification.
- Participated in sample car event.
- Components supplied by Strato can be kitted and delivered as desired by customer.

**CUSTOM DESIGNED  
SILL CONVERSION KIT**  
(SEE INSTALLATION PHOTOS ON BACK)



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# SILL CONVERSION CASE STUDY

## FRONT POCKET CONVERSION



Strato Engineering was on site for installation, training & verification, sample car and first production.



Strato provided drawings for sill modification and conversion. The striker and front lug assembly was customized to the car design.

## UNDERFRAME CONVERSION



The program included heavy duty Strato yokes for long life.

## DRAFT LUG CONVERSION



Rear draft lugs were customized to fit the pocket and reduce installation time.