

TECHNICAL LINE REVIEW YIELDS IMPROVED PARTS AND ASSEMBLY PROCESS, OFFERED CUSTOMER \$65,000 AND 242 LABOR HOURS IN SAVINGS

OBSERVATIONS AND SOLUTIONS

During a technical line review of a customer's facility, the Field team observed the components and methods of manufacturing used to assemble a railcar. The following observations were made with corresponding solutions:

- The Field team observed several fasteners extending farther than necessary beyond the rear nut
 - Increased cost of fastener due to extra material
 - Takes extra time to assemble the fasteners

SOLUTION: Shorten the lengths of 3 of these fasteners



TOTAL OPPORTUNITY: 242 LABOR HOURS AND \$5000 IN ANNUAL FASTENER COSTS

- Current practice is to tack weld eyebolts to prevent them from being removed
 - Tack welding offers uncontrollable heat distribution that could weaken the metal
 - Weld splatters can occur in undesirable area

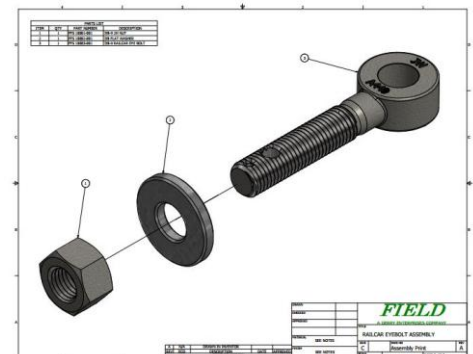
SOLUTION: Replace the tack welded threads with a drilled hole and drive pin

TOTAL OPPORTUNITY: \$48,000 ANNUALLY

- Current practice is to use a cross pin design to secure eyebolts that are then tack welded
 - Tack welding a bolt can have an adverse effect on the mechanical properties of the bolt

SOLUTION: Replace cross pin design with a safety collar design

TOTAL OPPORTUNITY: \$12,000 ANNUALLY



RESULTS

The Field team recommendations provide improved quality and reduced total costs through:

- Reduced assembly time
- Reduced material costs
- Improved mechanical stability
- Simplified field maintenance
- Part standardization

TOTAL ANNUAL SAVINGS OPPORTUNITY: \$65,000 AND 242 LABOR HOURS



More than parts, Field is a full-service, data-driven, on-demand engineering partner with a unique technical approach to inventory management of, and supply chain solutions for, fasteners and other Class "C" items—contractually guaranteeing to lower your total cost of fastening.