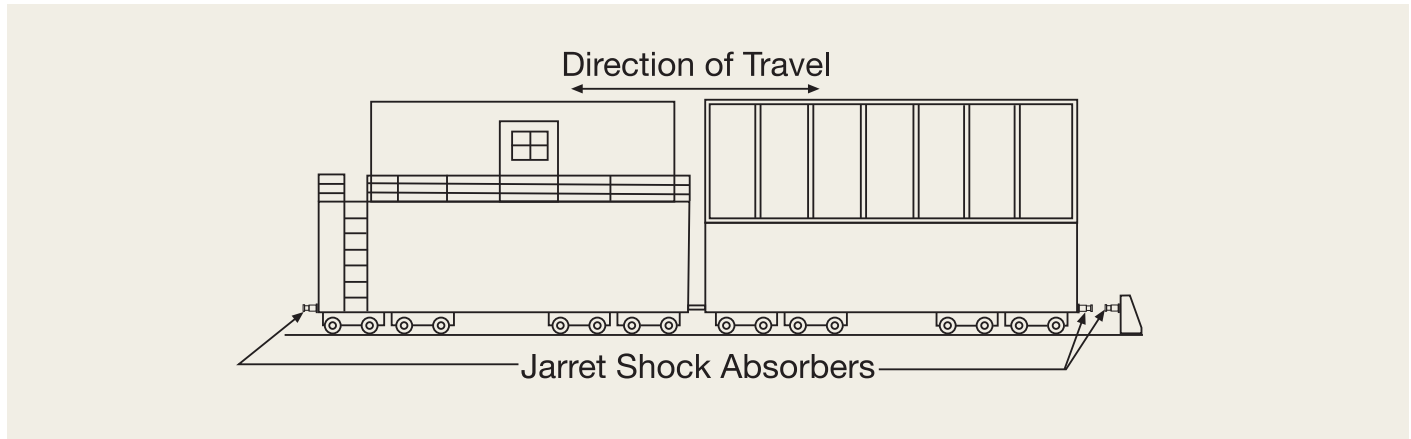


Coke Oven Quench Car Jarret Shock Absorber Application



Application Overview

The Quench Car is pushed along a track parallel to the coke ovens by a locomotive, usually electronically powered. The car received the complete coke cake from the push of an oven. It then travels down the track to the quenching station where the coke is quenched by water. After quenching, the car is taken to a coke wharf where the coke is discharged. Generally, there are two cars per track with only one in use at any given time.

Problem

There is a braking system to stop the car in the desired position. If the braking system fails or the operator over-travels the car, the car must be safely stopped overcoming both the momentum of the moving car, locomotive, and load and in some cases the driving force of the motor as well. The stop must be gentle enough to prevent damage to the car, end stop, other car, or injury to the operator.

Product Solution

Jarret shock absorbers are ideal for this application because they provide full energy absorbing capability for power-on stops. Since the reaction of a Jarret shock absorber increases with stroke, they will not bottom out when the car is driven into them. As they are stroked, the reaction increases to overbalance the drive force of the car with enough remaining capacity to remove the kinetic energy, thereby assuring a gradual, shock-free stop, without reaching the end of the stroke, i.e. bottoming out.

Jarret shock absorbers are normally selected to provide emergency stop capability with low deceleration forces in "power on" impacts to avoid injury to operators. The Jarret units can be mounted on the cars to impact against the end structure or they can be mounted on the end stop structure that the car impacts.

As inventory of standard sizes provides ready availability for most applications. Factory repair is available to recondition worn units if required, thus assuring long economical service.