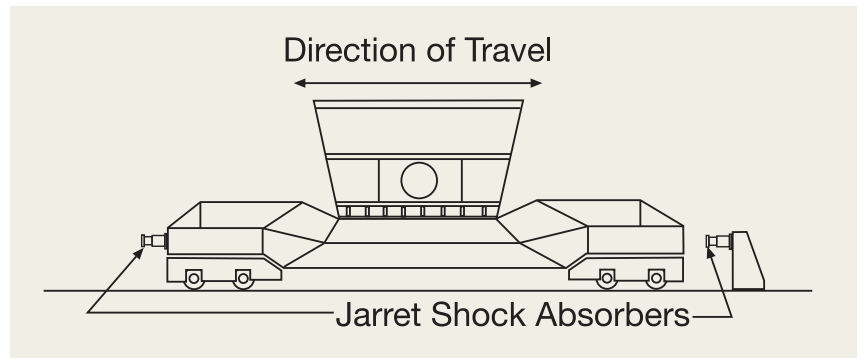


## Hot Metal (Ladle) Transfer Car and Other Transports Jarret Shock Absorber Application

### Application Overview

Transfer cars are used to move material from one location to another, frequently between bays or buildings. The cars move on rails. In most cases, two or more wheels of the car are driven by electric or hydraulic motors mounted on the car. Other transfer cars may be pulled by a driven cable arrangement.



### Problem

There is a braking system to stop the cars in the desired position. In addition, safety limit switches are used to limit the travel range of the car. If these systems fail, the car must be safely stopped; overcoming both the driving force of the motor and the momentum of the moving car and load. The stop must be gentle enough to prevent damage to the car or end stop, and most important, when moving hot metal, the stop must be gentle enough to prevent "sloshing" and spilling of hot metal.

### Product Solution

Jarret shock absorbers are ideal for the application because they provide full energy absorbing capability at the low operating speeds common with this type of equipment. 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, ie. bottoming out.

Jarret shock absorbers are normally selected to provide emergency stop capability with very low deceleration forces (typically less than 0.1g when moving hot metal) for "power on" impacts with fully loaded cars. 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.

An 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.