

Crane and Trolley Bumpers Jarret Shock Absorber Application

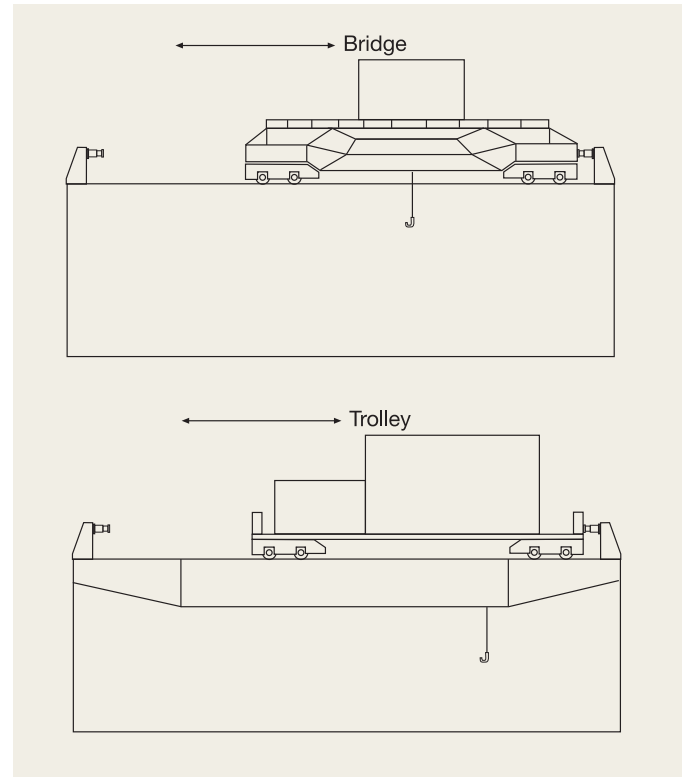
Application Overview

The mill duty crane is one of the hardest working cranes to be found. Not only is the crane required to work almost continuously, but it is frequently abused. Operators may use the end stop bumpers as “brakes”, especially when working near the walls of the building or edge of the bay in which the crane is located. Also, the crane may run into the end stop bumpers to square it up on the rails.

Problem

The crane bumpers can often experience a full speed impact. Crane bumpers sized using conventional selection procedures, only requiring an energy capacity capable of absorbing an impact at 40% of full-load speed, will certainly be undersized. They will not only give inadequate protection to the crane and runway structures, but will also result in short bumper life.

It should be noted that high speed impacts are more frequently encountered on radio controlled and pendant cranes, where the operator is on the ground and is not concerned about his safety, as well as soaking pit, stripper, charging, magnet, and scrap cranes.



Product Solution

In order to adequately size bumpers for overhead mill cranes, it is necessary to take into account the worst combination of forces that can be experienced by the bumpers and the maximum frequency of operation. Bumpers selected based on full-load speed impact will have more than six times the energy capacity of bumpers selected using selection procedures requiring only enough energy capacity to absorb an impact at 40% of full-load speed.

The Jarret units can be mounted on the bridge and trolley to impact against the end structure or they can be mounted on the end stop structure that the bridge or trolley 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.