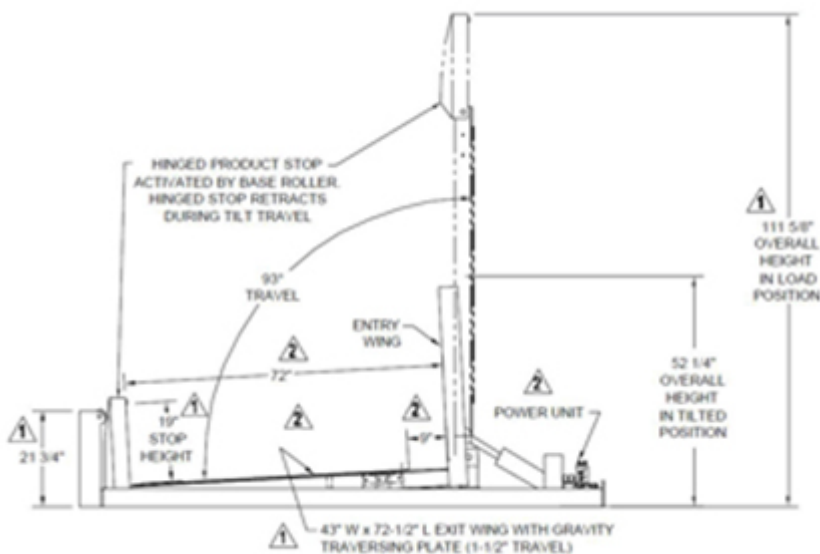


Floor Mounted Hydraulic Tilter Removes Damaged Product



The Challenge

A worldwide manufacturer of aluminum lids wanted to decrease the amount of time it took to remove/replace damaged product from within, or a damaged pallet from beneath, a 72-inch high palletized load of lids before shrink-wrapping and shipping. Current process of removing damaged product, or a damaged pallet, required that the load be taken across the factory to a pallet rotator being used as part of the production process and take it offline to fix the palletized load. The customer could no longer afford to interrupt the production flow to fix damaged product.

The design challenges associated with this application:

- 1) could not modify factory floor to go below grade to access top of tall palletized loads
- 2) total time to perform product removal/replacement must be minimal

The Autoquip Solution

It was determined that a custom-designed, floor-mounted hydraulic tilter would satisfy all the performance requirements of this customer. The recommended solution was a unique 93 degree upender that would accept a full pallet when raised, then down-end just past vertical to help the palletized stack “relax” enough to be able to remove/replace damaged product.



A manual sliding top plate on top of the 72-inch high tilter “wing” would allow the operator to slide the entire stacked load away from the pallet to be able to pull the pallet out and replace with a new pallet. Then, a double-acting hydraulic circuit was sized to provide as high of a tilting speed as possible without excessive jolting at either end of the cylinder stroke (extending or retracting). The tilter was also designed with a “stop” to capture the top layer of the palletized load to prevent it from un-stacking when the entire cubed load was temporarily tilted down into the horizontal position.

Specifications for this Tilter Application

Tilter Capacity: 2,000 lbs.

Platform Wing 1: 43” x 72.5”

Platform Wing 2: 43” x 41”

Degrees of Tilt: 93 degrees

Actuation: Double-acting Hydraulic

The Solution Benefits

Through the addition of this custom tilter, the customer has a much more efficient means to break into a palletized load to replace damaged product or pallet prior to shipping.