



# ON A ROLL

Reduce Injuries | Improve Operations | Reduce Costs

Caster solutions designed and engineered to meet the demanding environments of metal fabrication's end users.



# PUSHED TO THE LIMIT

## Shortcomings and consequences of commodity casters on OEM carts

Your metal fabrication shop already faces enough pressures with managing an increasingly complex supply chain, expanding margins and satisfying heightened customer expectations.

The last thing you need is for the wheels to literally fall off the carts that you custom-fabricate for your customers. Inferior casters mean poor-quality carts, and poor-quality carts damage both your

reputation and your relationships with your customers.

But if your metal fabrication shop is like many others, you likely have a caster problem. Or, to be more accurate, you have a commodity caster problem. Here are the top shortcomings and consequences of the commodity casters you find on OEM work-in-progress carts, truck carts, tuggable carts and other material handling systems.



### Unreliability

Most OEM carts have cheap casters that fail prematurely, taking carts out of production.



### Poor ergonomics

Casters with high rolling resistance cause physical overexertion—the #1 cause of workplace injuries.



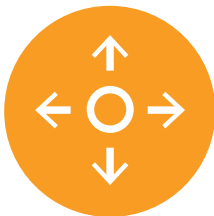
### Safety failures

Failed kingpins and incorrect tread materials are two leading causes of caster failures—and safety incidents—with carts.



### Costly maintenance

Commodity casters require regular greasing and servicing, making them costly to maintain and repair.



### Poor versatility

Most casters are designed for specific applications, making the task of finding versatile replacement casters—those that work on a wide variety of carts—a nightmare.



### Floor damage

Caster wheels made from phenolic and other inappropriate materials collect debris that hardens into the wheel's tread, wearing grooves into your customers' floors and eventually taking AGVs offline.



### Noise

The wrong wheels or the wrong casters increase noise levels by up to 15%.

# ANATOMY OF A COSTLY CASTER

*Why your fabrication shop literally can't afford commodity casters*

## LOOSE RACEWAY

Produces the chatter noise commonly associated with carts of all kinds.

## INFERIOR BEARINGS

Poor-quality bearings fail prematurely, making carts difficult and noisy to maneuver.

## POOR RESILIENCE

Hard wheel tread picks up debris, increasing push/pull forces, damages flooring and increases replacement costs.

## KINGPIN

Kingpins are the #1 failure point on cheap casters, and carry the highest replacement cost.

## STANDARD SWIVEL LEAD

Makes carts harder to get moving in a desired direction from a standstill, increasing push/pull effort by 10 to 50%.

## WRONG TREAD

The proper tread needs to be chosen for the application, and choosing the wrong tread causes a variety of issues and possible failure.



## ON A ROLL

*Casters manufactured by Caster Connection are designed and engineered to meet the demanding environments of metal fabrication's end users.*

### FEATURES

#### HIGH-QUALITY POLYURETHANE WHEEL

Stores & exudes energy to reduce noise-causing vibrations to deliver a smooth and quiet ride.

#### BEARINGS

Distributes loads, reduces friction and reduces noise.

#### EXTENDED SWIVEL LEAD

Makes carts easier to get rolling in the right direction from a standstill, and easier to steer.

#### MAINTENANCE FREE

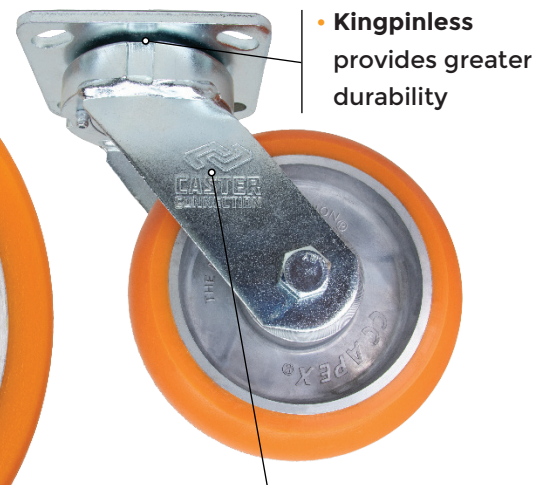
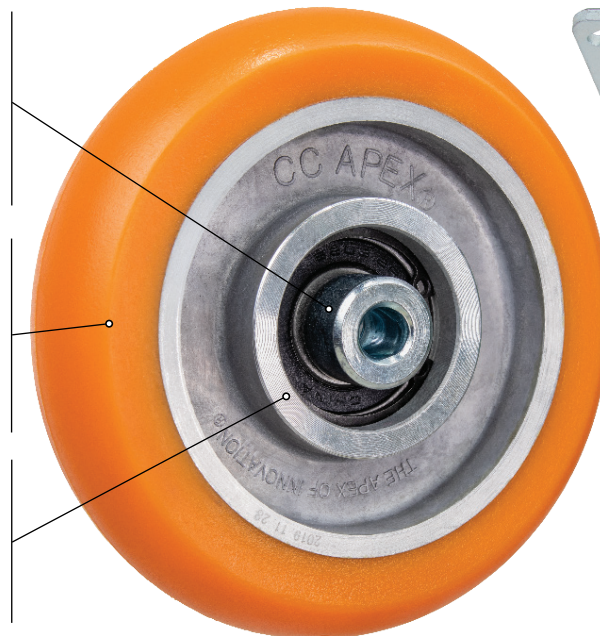
Caster rig requires zero greasing. Caster design keeps debris out of the upper bearings.

#### KINGPINLESS

More durable than casters with kingpins. Handle heavy loads and offer longer lifespan than casters with kingpins.

### CASTER CONNECTION'S CC APEX.

- **Maintenance-free double ball bearing** for better maneuverability
- **Unique blend high-quality polyurethane** to improve push and pull
- **Sturdy, lightweight aluminum core** to enhance movement



- **Extended swivel lead** provides easier rolling and steering

Casters manufactured by Caster Connection are designed to replace commodity OEM casters so that the carts you custom fabricate for your customers feature the same quality and reliability that your customers have come to expect from you.



# BENEFITS



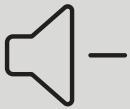
## Uptime

Increase lifetime of casters from mere weeks or months to years, particularly when moving heavy loads



## Safety

Reduce push/pull force by 10-50%, improving employee comfort and safety



## Quiet

Reduce noise levels by up to 15%, improving workplace comfort



## Savings

- Lower maintenance costs with casters that require low to no maintenance
- Reduced costs from injuries
- Reduced floor-repair costs




## Productivity

Avoid production downtime caused by failed casters and damaged equipment



# CASE STUDIES



CASE STUDY	CHALLENGE	SOLUTION	RESULTS
<p>J Tec Industries reduces noise by 20%</p> 	<p>J Tec Industries has a large OEM that need to reduce noise levels on a Quad Steer cart while also handling a significant total load at 7mph. The original caster wheels were creating too much noise and vibration on the cart and within the plant as these carts run a heavy duty cycle.</p>	<p>Upon a site review of the load, the speed and run rate, J Tec Industries worked with Caster Connection to use a highly resilient, extremely thick polyurethane wheel, CCAPEX-HD-830, to significantly reduce the decibel levels of the tugger train while also being able to withstand the total load and speed.</p>	<p>After installing these wheels, the decibel levels instantly dropped almost 20%, and the tugger trains have been running smoothly ever since without any issues.</p>
<p>Large industrial manufacturer of garbage trucks improves ergonomics and reduces noise while minimizing maintenance cost</p>	<p>A large industrial manufacturer of garbage trucks needed new carts for their assembly process, and began working with Hovair Automotive. A couple issues that needed to be solved were reduced noise, much better ergo and durability of the casters themselves.</p>	<p>Hovair Automotive worked with Caster Connection for a solution to solve all 3 challenges. Upon review, kingpin casters with standard lead were causing the durability, the noise as well as the ergo issues. The solution needed to solve all 3 were 8x2 Kingpinless Swivel casters with Extended Lead and the matching rigid.</p>	<p>After prototype testing, ALL 3 issues were resolved by reducing Push Pull forces over 20%, noise by 15% and increasing caster lifetime 4-5x's than the previous casters.</p>

# WE'RE PULLING FOR YOU

## About Caster Connection

Caster Connection is a leading manufacturer and distributor of casters. We are dedicated to developing the most innovative and optimal caster solutions in order to deliver enhanced ergonomics, safety, and efficiency for every client.

### **We're pioneers.**

We design, engineer and manufacture casters and wheels for distribution centers and multiple other industrial and commercial applications.

### **We have a solution focus.**

We take a consultative approach to solving your material-handling challenges.

### **We have deep technical expertise.**

We have three decades of technical expertise in designing innovative, performance-built casters.

### **We are proven.**

Thousands of satisfied customers in dozens of industries around the globe.

### **We are experienced.**

Caster Connection has more than a century of combined experience creating casters and material-handling solutions.



# WHEN PUSH COMES TO SHOVE, CALL US

## **At Caster Connection, we don't sell casters. We deliver solutions.**

You aren't going to find the solution to your material handling challenges in a product catalog. The solution you seek doesn't have a SKU. Or a part number.

Which means you don't need a manufacturer or a supplier that sells casters. You need a partner who delivers solutions.

At Caster Connection, we take a consultative approach to solving your material-handling challenges. Sometimes this involves replacing the commodity casters on your OEM carts with casters that are designed, engineered and manufactured to withstand the harsh working environments of your customers.

But, more often than not, it requires sitting down with you to discover your challenges, diagnose your ailments and document your current state of health. Only after this consultation are we prepared to recommend a comprehensive solution.

We offer more than simple hardware. Working with Caster Connection means working with a team of consultants, engineers and designers who are in the business of making sure the OEM carts you custom-fabricate maintain uptime, reduce worker injuries, lower maintenance costs and increase safety for your customers.

Yes, that involves casters. But only the casters that we know will meet your unique challenges and solve your most pressing issues. Let's talk.



2380 International Street  
Columbus, Ohio 43228  
Phone: (800) 544-8978  
Fax: (888) 852-7202  
[casterconnection.com](http://casterconnection.com)