

# Solving Critical Boom Challenge within One Week



[CCTY Bearing](#) manufactures high-quality bearings and assemblies, as well as unique solutions for OEM partners.

*“CCTY Bearing supplied bearings faster than the current supplier could decide on which plant they should use to manufacture the bearings.”*

*Purchasing Manager*

## Executive Summary

An OEM was experiencing worldwide failure of their telehandler’s boom retraction and was in dire need of a solution. Their current supplier did not have the ability to address the issue in a timely manner, nor did they have a potential solution. The OEM reached out to CCTY Bearing based on a suggestion from one of their suppliers.

In less than one week, CCTY Bearing had an approved custom bearing design based on the load and application. Within six weeks, the OEM had custom engineered bearings – and a solution – in-hand.

The ability to provide an expedited timeline for the exclusive design was based on open communication with the OEM, on-staff engineers and in-house manufacturing capabilities.

## The Challenge

Traditional plain bearings in a telehandler were not working well during the retraction phase of a boom's reach. The OEM was experiencing global complaints about the functionality and was in need of a workable alternative on a tight timeline.

## The Solution

A roller bearing was recommended by CCTY Bearing's engineers to replace the boom's plain bearing. In this particular application, a roller bearing would reduce wear and friction in comparison to the existing bearing, while maintaining the load capacity required in such an application.

The conditions between a roller bearing and plain bearing – or bushing – are very different. However, CCTY Bearing's product line contains both chain roller products and bushings, so on-staff engineers are well versed in the each bearing's capabilities and features.

This expertise and open collaboration with the OEM shortened production to just six weeks. The sketch-to-sample timeline included:

- Understanding the application and finalizing the roller bearing design, during the initial meeting with the OEM
- Bearing print approval from the OEM within days
- Clarifying the sample production process with the manufacturing plant and OEM
- Receiving the sample order
- Beginning production
- Shipping the parts

*“As a results-focused manufacturer with an exclusive product line, we are able to leverage our engineering knowledge base with on-site critical processes to provide custom bearing designs within an expedited timeline.”*

*Hamed Ramezani  
Director of Engineering*

## The Results

Through open collaboration between the OEM and CCTY Bearing engineers, the OEM was able to obtain replacement parts within six weeks.

The smoother boom retraction attributed to chain roller bearings have:

- Lower friction
- Lower wear
- Maintenance-free use as they do not require relubrication

The OEM now has a bearing that will provide a longer life for the telehandler boom.