

TECSYS Customer Success Story



At a Glance

Industry

Heavy Equipment

The Challenge

Cleveland Brothers has become one of the largest Caterpillar dealers, handling some 500 orders per day and 170,000 items in their inventory. The Company needed to support its management, parts distribution and services staff with a robust warehouse management system and provide them with real-time visibility and tracking of parts and orders throughout their supply chain.

TECSYS' Solution

TECSYS' EliteSeries Warehouse Management System for IBM System i.

Cleveland Brothers selected TECSYS because of its extensive expertise and proven solutions at several Caterpillar dealers across North America.

The Benefits

Within just a few months of deploying TECSYS' EliteSeries WMS for IBM System i, Cleveland Brothers has realized substantial savings and significant operational benefits, such as 99.98% fill rate, 99% order accuracy and the ability to handle 20% more products in inventory with 40% less people.

Cleveland Brothers Delivers 500 Orders Per Day with 40% Less People Using TECSYS' WMS

"Without TECSYS' WMS, we would have not been able to handle the load. We would have had to add people. The idea is, with TECSYS' WMS we do more with less. At one point we had 47 people, today we are handling the load with 28, even after increasing the number of products in our inventory by almost 20%."

Rick Hoose, General Parts Manager at Cleveland Brothers

About Cleveland Brothers

Cleveland Brothers was founded in 1948, and had served as Central and Northeastern Pennsylvania's Caterpillar dealership for over 55 years. The Company sells, rents, services and finances equipment for the construction, mining, agriculture, forestry, marine, oil and gas, and electric power industries.



In 2005, Cleveland Brothers acquired Beckwith Machinery Company and One Call Rentals Inc., and in the process more than doubled its size; growing to over 1,200 employees and expanding its sales and services coverage throughout Pennsylvania and into parts of West Virginia and Maryland. Today Cleveland Brothers, while a large equipment dealership, remains a family-oriented business, operating from 26 locations with a keen focus on meeting the needs of its customers by providing excellent service, a focus that has always been part of the Company's foundation.

Cleveland Brothers' customer focus is exemplified by its drive to continually improve customer service with a clear operating principal as part of its mission: "Every action we take, every decision we make, is evaluated in terms of the impact on our customers and how they will benefit from it."

Since it was founded, Cleveland Brothers has known that to be successful, its customers must succeed. Today, with 600 dedicated service technicians, thirteen daily deliveries to customers and an improved fill rate to more than 99% after the deployment of TECSYS' EliteSeries Warehouse Management System (WMS), the Company has clearly demonstrated its significant commitment to customer service excellence.

Challenge

Following its two acquisitions, Cleveland Brothers has become one of the largest Caterpillar dealers. The Company needed to support its management, parts distribution and services staff with a robust warehouse management solution and provide them with real-time visibility across their parts supply chain. Furthermore, with the Company's expansion to an 85,000 square feet central warehouse, they needed to move away from their labor-intensive logistics activities and acquire a Warehouse Management System (WMS) compatible with the Caterpillar Dealer operating environment. Cleveland Brothers' challenges were to:

- Move from a paper-based to an automated inventory management system
- Better manage its resources
- Efficiently manage 170,000 items in inventory
- Process 500 orders and ship 6,000 items per day

Cleveland Brothers also wanted to respond to customers in time; both from services and from delivery points of view and track orders, parts and deliveries throughout their supply chain.

In pursuit of its excellence in customer satisfaction, Patricia Hays, Vice President of Technology at Cleveland Brothers and her team embarked on the search for the right system to support its mission-critical distribution operation for its parts center. They needed a supplier that understood parts distribution and the Caterpillar Dealer's environment; the uniqueness and wide variety of Caterpillar parts. As importantly they needed a supplier that can provide:

- A robust & feature-rich Warehouse Management System with real-time visibility
- Advanced technology that is easy to deploy and use

A combination of, the recommendations from Boston Industrial Consulting, an independent operations and industrial engineering firm, and a visit to Milton CAT, another major Caterpillar Dealer and a TECSYS customer, provided Cleveland Brothers' management with a convincing case to move forward in favor of TECSYS.

Solution

Cleveland Brothers selected TECSYS because of its extensive expertise in distribution and Caterpillar Dealers operations. They also selected TECSYS because of the Company's proven solutions at several Caterpillar dealers across North America and major automotive parts distributions centers in Canada.

With TECSYS' EliteSeries WMS for IBM System i, Cleveland Brothers has the following capabilities:

- Ability to manage inventory in multiple locations
- Full RF capability for all transactions – paperless warehouse
- Multiple pick strategies (order, zone, wave)
- System-directed activity (putaway and picking)
- Cross-docking
- Emergency order interrupts for “will calls”
- Full compatibility with Caterpillar supplied bar codes (FL/MR tags)
- Cubic dimensions for Caterpillar parts
- Full integration to Caterpillar DBS (Dealer Business System)



To provide Cleveland Brothers with one of the most sophisticated and efficient distribution infrastructure, Boston Industrial Consulting in collaboration with TECSYS integrated and deployed an automated handling system, supporting:



- A custom bin-sizing specifically designed for Caterpillar environments to maximize warehouse space and minimize new equipment expenditures
- Segregation of parts as conveyable vs. non-conveyable based on part dimensions, shape and weight

By sizing the pick face location, Cleveland Brothers is now able to significantly reduce the labor required to replenish each location. By balancing activity across multiple pick zones, they have reduced congestion in zones, improved material flow and reduced the total response time for a given order or batch of orders.

In addition to zone picking, a pick-and-pass application was utilized to maximize picker productivity while maintaining a minimum number of packing transactions. The area serviced by the conveyor was divided into 6 pick zones. A new order could be started in any one of the six pick zones, depending on who was ready for more work. Upon completion of the picks required in that zone, the operator would put the tote on the conveyor. The EliteSeries WMS communicates with the WCS (Warehouse Control System) and directs the tote to the appropriate next pick area, or if complete, to the outbound packing area. If picking in another area was required, the tote would be diverted into that pick area. The picker simply scans the tote and resumes picking the same order, into the same tote.

Cleveland Brothers was able to be up and running on TECSYS' EliteSeries WMS for IBM System i in less than four months. In the process, they reduced labor and operating costs and increased order quantity. As importantly, they enabled the business to become more profitable and at

the same time increased customer satisfaction. The whole transaction was executed quickly:

- Signed with TECSYS in April 2007
- Moved in the new warehouse and moved in products to the new warehouse facility in November 2007
- Went live on the TECSYS software in December 2007

Cleveland Brothers' parts center is strategically located about two hours from Caterpillar in York, Pennsylvania; enabling the Company to order and receive daily shipments to support uninterrupted service to customers. The complete cycle of receiving, putaway and shipments to customers is handled through a 3-shift process over a 24-hour period.

Orders entered by all Cleveland Brothers locations are processed and pulled by the warehouse personnel during the first and second shifts. Stock orders from the Caterpillar distribution center are received in the afternoon and second shift sorts the parts for all the other Cleveland Brothers' locations. When the parts shuttle trucks begin arriving, the second shift starts cross-docking the loads of parts, attachments and components which will be transferred between locations. Emergency orders from the Caterpillar distribution facility arrive by 11 p.m., and once that truck is off-loaded and sorted, shuttle trucks are reloaded and released on their return routes to their destinations by midnight. The third shift arrives to assist the second shift, if needed, and then begins to stock the central distribution center in Bellefonte, Pennsylvania. This schedule allows parts to be ordered one day and ready for pick up by customers or service personnel the following morning.

Inventory orders to Cleveland's central DC are putaway either through directed or non-directed putaway processes. With system-directed putaway, warehouse workers are not required to be familiar with all the products the Company carries to put them away in the correct bin location. With TECSYS' EliteSeries WMS multi-bin function, parts are dynamically allocated based on the next appropriate and available space in the warehouse. This provides Cleveland Brothers with the flexibility, efficiency and cost saving benefits.

Orders are sent to the picker handheld RF device with required delivery information; delivery destination & order priority. Orders can be automatically escalated based on

time and header details (ex. carrier code, customer account etc...). The EliteSeries WMS rules protect waiting orders from being grouped with lower priority orders, ensuring lower order duration.

After picking is planned, up to ten orders can be pulled by making one pass through each zone, providing significant productivity gain to Cleveland's parts center. Pickers are required to scan inventory locations and enter the quantity pulled. Completed orders (per bin class if zone pulling) are dropped at packing stations where they are packed then directed to will call/shuttle/service based on the relevant order type. Parts are then scanned to licenses which are tracked until the final destination is reached.

Deploying TECSYS' EliteSeries at Cleveland Brothers' Parts Distribution Center means that the Company has virtually eliminated paper processes and is now able to handle substantial volumes swiftly without adding resources.

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***Rick Hoose, General Parts Manager,
Cleveland Brothers***

Benefits

Today, logistics processes at Cleveland Brothers are significantly more efficient, parts and transactional records are electronic; data entry and retrieval are enabled through RF technology. Tracking of parts and orders are handled through TECSYS' visibility applications, empowering the Company's staff to:

- Track any part or order, anytime, anywhere
- Verify records of every transaction
- Ensure that they have the right product, right order at the right time
- Virtually eliminated time wasted looking for a part or an order

Within just a few months of deploying TECSYS' EliteSeries WMS for IBM System i, Cleveland Brothers has realized substantial savings and significant operational benefits, they include:

- 99%+ order accuracy:
 - Gain of 90% for searching in order fulfillment
 - EliteSeries WMS minimizes the amount of product search in the warehouse
 - No empty pick location
- Cost saving of 34% - traveling, searching, pulling products, & paperwork etc...
- 40% gain for traveling in order fulfillment
 - Cluster pick, pick multiple orders at once
 - Zone pick
 - Pick multiple orders at a time in a zone
- The EliteSeries WMS improved order fulfillment process through:
 - Optional pick sequence
 - Assigns picks via RF and optimizes assignment by batch, cluster etc
- Receiving, putaway & material handling savings of 47% in:
 - Sort and reconciliation: efficiency gain due to online reconciliation of line quantities to PO
 - Putaway – efficiency gain due to divided putaway algorithm
 - Paperwork – efficiency due to online, real-time update and integration to PO system
- Labor savings of approx. 28% in labor costs:
 - Checking and packaging costs
 - Data entry
- Virtually eliminated shipping errors
 - The EliteSeries WMS for IBM System i best practice is yielding 99%+ shipping accuracy

Below is a summary of the major benefits realized by Cleveland Brothers after deploying TECSYS' EliteSeries WMS:

Key Performance Indicators	Increase/Decrease
Number of people	▼ 40%
Number of items in stock	▲ 20%
Fill rate	▲ 99.98%
Labor Cost	▼ 34%
Order accuracy	▲ 99%

“TECSYS’ expertise and technology are strategic to our business that have enabled us to deliver on our vision as the undisputed leader in customer service excellence in our industry.”

Patricia Hays, Vice President of Technology, Cleveland Brothers



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