



DETROIT™



Case Study: Detroit Diesel Corporation

How an OEM manufacturer of engines supported and grew its multi-channel Aftermarket Operations as an early adopter of Product Information Management software.

Executive Snapshot

The Company

Detroit Diesel Corporation was acquired in 2000 by DaimlerChrysler AG, the world's leading manufacturer of heavy-duty diesel truck engines, and became a subsidiary of Daimler Trucks North America.

Headquartered in Detroit, Michigan, the company services its customers through a worldwide network of more than 2,700 authorized dealers and distributors.

The Problem

In a rapidly changing and increasingly competitive market environment, Detroit Diesel needed to improve the quality and speed by which it provided parts pricing and product information to its distributor and dealer network. Supporting the aftermarket sales and service side of the business was imperative, as it is a significant revenue and profit generator for the company. While needing to optimize revenue and profit opportunities, there was also a need to reduce customer support costs and, at the same time, make it easier for dealers and distributors to do business with them. A major barrier to improvement lay in the legacy business systems and paper-based processes that could no longer support the dynamics of the market. A major systems overhaul was cost-prohibitive and not in harmony with the overall corporate IT strategy.

The Solution

To support all facets of the Aftermarket sales and service business, Detroit Diesel chose to implement an end-to-end Product, Part and Pricing Information Management System from Pricedex to integrate with

business, financial, and publishing systems, and to provide an infrastructure for its e-

Commerce strategy with its business partners and customers.

Pricedex Solutions

PDM Builder™

PDXi – Web Interface™

Implementation

Initial implementation - 60 days

Investment

Initial implementation less than \$500K

Additional Products

PDM Explorer™ and PDM Web Explorer™
e-Reports™

Customer Case Study

It is no accident that Detroit Diesel Corporation's heavy-duty engines are the most popular in their sector within the NAFTA trade region. In 2000, the company which designs, manufactures and services heavy-duty diesel and alternative fuel engines, will see its popular *Series 60* engine ship its 800,000 unit into the market. The manufacturer credits its focus on the needs of the customer as a key success factor to achieving their long-running success.

Headquartered in Detroit, Michigan, the company's Aftermarket Parts Sales and Marketing department embraces this philosophy, and goes one-step further. In the aftermarket parts and service business, where the company sells through more than 2,700 dealers and distributors globally, the company's focus is to instill a *disciplined preference* for doing business with Detroit Diesel. Simply put - if customers find it easier to do business with Detroit Diesel, they will.

The Challenge

Making it easier to do business means meeting multiple customer needs. Easy and reliable access to parts and service information, high parts availability at fair prices, and flexible ordering policies, all minimize a truck's downtime in the service bay. "Our end customers make their livelihood through their truck. To order the wrong part is not only inconvenient, but the down-time literally costs them money," says Tom Freiwald, Senior Vice-President of Marketing. He also notes it is their job to ensure that the right parts are

available at the right price, the right place, and at the right time. To fail at any one of these objectives is to fail in the eyes of their customers.

This sentiment is echoed by John Ruck, Director of Aftermarket Parts Marketing, whose responsibility is to ensure these objectives are met, while meeting the corporation's objectives of maximizing revenue, profit and share of the aftermarket. "The need to successfully support our distributors and dealers with tools to make it easier for them to do business with their end-customers and with us, as a supplier, are essential. That, and competitive, accurate and fair pricing, local parts availability, rapid response for emergency orders and other progressive policies are key success factors."

While taking aim to deliver on these objectives, Detroit Diesel recognized that a significant challenge lay ahead of them to reconcile product, part and pricing information for millions of engines, for which essential information resided in multiple data silos.

"In the old days, we could never see the data real-time," recalls Chris Kvasnak, Senior Pricing Analyst. "We had to run a program and generate reports to extract the information. This meant going through up to 10 different screens to segment the data, compile and run reports. This practice was not only cumbersome, but risked a high incidence of error."

*“When a company focuses on **customer satisfaction**, then typically sales, profits and market share follow”*

J.D. Power & Associates

Damen Albert, a manager responsible for the Mercedes-Benz engine line in North America recalls a similar hurdle. “I used to get a disk containing 800,000 Mercedes part numbers but I only needed 25,000 of them. I would have to extract each part I needed – line-by-line!”

When errors did go undetected, they would end up published in the parts catalogs which were distributed to channel customers. And worse, the errors would proliferate into the Detroit Diesel logistics, distributor and dealer business systems. “If the price is too low, customers don’t tell you. But if they are too high, they complain,” says Ruck. “And they would especially complain if it’s the wrong part in the first place, because of the time lost in the service bay. While errors would ultimately be corrected, it would not be without significant additional costs in customer service, the involvement of other departments for the administration of credit notes, further dealer aggravation and lost customer goodwill.”

The company had a vision for an end-to-end aftermarket parts information system that would support all facets of the aftermarket sales and fulfillment business, and their future e-Commerce strategy to support their dealers, distributors and end-customers. They were determined to bring the management of massive volumes of

product, part and pricing information under control, because to leave such mission critical business components unaddressed was like leaving money – and future success – on the table.

The Criteria

In support of the Aftermarket Parts department, IT set out to source a solution that would streamline and automate their processes, eliminate errors, improve management visibility into price drivers, and ultimately improve customer service and fulfillment. Moreover, the solution had to get the product and parts information published out to the markets accurately and in a timely manner, and ensure the information was synchronized across all business systems.

IT faced the choice of whether to build onto existing legacy systems or to introduce new technologies. Rather than investing further development into the legacy systems, the company preferred to dislodge itself from the mainframe and move to more open, client server technologies that would more flexibly adapt to future IT and e-Commerce systems and opportunities.

The Choice to Partner with Pricedex

While there was no shortage of custom solutions at custom sticker prices, Detroit Diesel was highly intrigued when they discovered Pricedex. “Pricedex was the only standalone solution,” says John Ruck. Other vendor options were largely modules of other ERP packages which would have required larger and significantly costlier implementations.

They also didn’t sufficiently focus on the burden of managing the part and price information the way the Pricedex platform

did. “While many vendors said, ‘We can build that for you,’ Pricedex was the only company who said, ‘We *have* that for you.’ Pricedex jumped to the front of the line very quickly, with a very flexible and robust, off-the-shelf technology,” explains Ruck.

From an IT perspective the key decision factors that drove the selection of the Pricedex solution were first, that it was standalone and allowed them to move off the mainframe here labor would be prohibitively expensive to support any application. Secondly, the open and extensible architecture, combined with the efficient leveraging of a highly adaptable data integration methodology and a common scripting language, presented a reliable, stable solution that would work right the first time, and would require very little IT support moving forward. The fact that it was an off-the-shelf solution, that had already been proven in other manufacturing environments, and came at a substantially lower cost made the choice even more compelling. However, what ultimately satisfied both IT and the Aftermarket business unit was the impressive depth of understanding the Pricedex team had of their business and processes.

The Implementation

At the onset of the process, Pricedex spent a number of days working with Detroit Diesel personnel to thoroughly document and map the company’s processes. This collaborative effort became the written functional specification, which was 90% right on the first draft and provided tangible detail on the implementation that everyone could understand.

During implementation, the Pricedex team configured the system to interface with Detroit Diesel’s various parts and logistics systems including a legacy mainframe and

an Oracle-based system. Business rules were defined, channel pricing structures and discounting methodologies were scripted and documented, and the part information database was configured and loaded.

“Within a couple of months we were up and running,” recalls Ruck. “Pricedex actually delivered what they said they would – when they said they would.”

Creating Visibility Within

Once the core platform was implemented and data was flowing to and from PDM Builder™ and core business systems, Detroit Diesel and Pricedex turned their attention to making information available to, and throughout the enterprise. Using PDXi – Web Interface™, Detroit Diesel implemented real-time parts and price lookup across its intranet to Customer Service Representatives in its Ohio distribution center, and implemented an online order pricing system with its mainframe logistics system.

“We had to make sure our dealers and distributors could process emergency online orders, and that they were priced correctly so the parts could be released immediately,” states John Ruck. “And issuing the right, customer-specific price right down to one of any number of ship-to addresses is essential to our customers. Downtime meant money, so by employing the Pricedex solution in this manner, we were able to ensure accurate quotations and invoicing for emergency orders and improve our transaction handling and turnaround with our customers.”

Ruck explains that Detroit now also has the ability to run retrospective analysis on their pricing strategy. “We can now examine pricing data and compare it with the sales data to determine the real impact of a particular strategy. And we now do it as

often as 2-3 times per week, by part or by supplier, with a simple internet connection from wherever we are on the planet. Our e-Reports™ are now an essential decision-support tool for our business.”

Ruck also explains this sort of visibility leads to more successful negotiations with their customers, because now both Detroit Diesel and the customer can have visibility into objective data instead of negotiating discounts over anecdotal scenarios.

Meanwhile, staff continues to discover new opportunities to leverage the online visibility with new reporting procedures. “We frequently come up with new ideas to expand the business system,” explains Damen Albert, “and when we bring them to Pricedex they always say ‘no problem...can do.’” At one point Albert expanded the information repository to also track inventory and report that information out to other stakeholder departments. He identified the attributes he required, and made the additions to the system himself, and once the data was received from the back-office systems, the information was delivered and instantly provided value and utility across the organization— all in less than a day.

Creating Visibility Online

One of the most visible and exciting projects at Detroit Diesel was to use the PDM Explorer™ solutions to create an automated Electronic Parts Catalog for its 2,700 dealers and distributors. Detroit Diesel’s technical illustrators and publishers now collaborate online to create electronic illustrated parts catalogs, and the system receives engineering data feeds to match up assemblies, models, types and superseded parts to those catalogs.

Detroit Diesel’s customers, and other DaimlerChrysler divisions, can now access

up-to-date illustrated parts catalogs online to view parts that are applicable to an exact engine, by its serial number.

“To put that into perspective,” Jack Cunningham, Manager, Service Parts Publications claims, “there are over 2 million Detroit Diesel engine serial numbers logged in our catalogs today, and that does not even include the entire Mercedes-Benz Engine line, which we have now also loaded into the catalogs. From the Catalog Management Console, we can publish simultaneously to web, CD-ROM, or even a custom Illustrated Parts Manual for our customers, at the touch of a button. Operators can now have a service parts manual specific to their particular engine serial number right in their dashboard.

This means they can be assured that any Service Center across the country can service their engine with the right parts.”

The Outcome

It has been fifteen years since the initial PDM Builder implementation, and the impact of Pricedex and its applications has been far-reaching and continues to grow. Benefits thus far have extended to users of the system, the company’s operational performance, and ultimately to end-customers through greatly improved overall service.

Chris Kvasnak and Damen Albert now work off *‘one single source of the truth’* and have eliminated the multiple screens and reports to get at the information they need. “We don’t have to depend on other sources. This has saved us more than 50% of our time,” declares Kvasnak. “Our business has changed dramatically over the past 4 years, and the time savings has given us the capacity to do more, with less people.” Albert also notes that, “it allowed us to take

on the Mercedes responsibility without having to add any additional personnel.”

Kvasnak and Albert also say they can respond quicker to queries from other departments who appreciate the rapid turnaround of information that is always dependable and accurate. “Of course, now that we’ve had the Pricedex system for a while, they take it for granted,” Kvasnak smiles. Internal customers can also look up information for themselves on a self-serve basis which gives her more time to focus on the business of price analysis and optimization. Everyone in the organization has visibility into the same data on costs, pricing, customer patterns, forecasting, etc. allowing for faster and more consistent business decisions across the organization.

The most dramatic impacts to the organization, however, have been in the area of Price Change Management. Detroit Diesel almost immediately stopped revenue leakage caused by delays in effecting price changes to their channel.

“For every month we can get our prices to the market sooner, we claim \$1.5 million in bottom line profit that would otherwise be lost to us,” explains Ruck. He says that this alone is justification for the system and continues to pay multiple dividends. Additional cost savings associated with publishing, pricing accuracy, price optimization, and gains through customer retention are all ‘icing on the cake.’

Ultimately, Detroit Diesel’s external customers are receiving better service by way of timely, convenient and accurate parts information. “If our direct dealers in South America need a special price list for a product line, we can now turn it around in under a day whereas in the past we’d be talking almost a week,” says Kvasnak. But it’s probably the customers they don’t hear from that are saying the most. Says Ruck, “customer complaints have all but disappeared.” And that means the right parts, at the right price, are at the right place, at the right time. And drivers are on the road where they should be.

About Pricedex Software Inc.

Pricedex Software Inc. is the leading developer of world-class pricing and product information management (PIM) solutions. Pricedex software enables manufacturers to establish, manage and maintain product and part relationships, pricing methodologies, catalog structures and business rules and logic while integrating with back-office, ERP and e-Commerce systems. A wide portfolio

of globally deployed customers use Pricedex off-the-shelf software to improve profitability, efficiency, accuracy and overall customer satisfaction.

Additional whitepapers describing Pricedex solutions and technical architecture are available upon request, or by visiting the Pricedex web site.