

## THE VALUE OF TRAINING: PARTS MANUFACTURER BENEFITS FROM CERTIFYING STAFF IN NON-DESTRUCTIVE TESTING

**ABOUT H-E PARTS MINING, INTERNATIONAL.** H-E Parts International is a leading independent supplier of parts, remanufactured components, and equipment to the mining, quarrying, heavy construction, and energy sectors. The H-E Parts Mining Solutions division has been based in Billings, Montana, since 1977 and specializes in serving the mining industry. Employing more than 80 people, the Billings facility produces both new and remanufactured replacement parts for mining equipment such as haul trucks, electric shovels, and hydraulic excavators and dozers.

**THE CHALLENGE.** H-E Parts continually strives to develop innovative maintenance solutions for its customers, with a focus on parts and services that extend life cycle performance and lowers total cost of ownership. To help achieve this goal, the company wanted to train existing employees and recertify employees in nondestructive testing (NDT), a technique for evaluating material properties to identify material failure or welding and material defects. NDT methods have several important benefits: they do not cause damage to the original part, they can prevent the need to replace an item before a malfunction occurs, and they can be used to test and improve welding procedures.

**MEP CENTER'S ROLE.** MMEC, part of the MEP National Network™, and H-E Parts worked together to map out a plan to identify and implement specific NDT training projects, with execute projects that support the objective of this project. MMEC Business Advisor Lane Gobbs and MMEC Manufacturing Specialist Eric Engen led the creation of a training program to offer Level II Inspector Certification in both magnetic particle (MT) and dye penetrant (PT) NDT. Engen, a 30+ year NDT expert, worked on-site to deliver the training and examinations to participating employees.

Engen has helped to certify 68 employees for H-E Parts in Level II MT and PT NDT inspection. Combined with an investment in additional testing equipment in new MT yokes, UV flashlights, test plates and different development, this project significantly advanced the company's in-house NDT capacity.

H-E Parts also uses nondestructive testing to determine the level of repair needed by customers. With improved inspection capabilities the company can conduct more thorough discovery inspections and offer more accurate repair cost quotes, which enhances customer service and helps H-E Parts maximize profitability.

With stronger in-house nondestructive testing capabilities H-E Parts can improve the quality and service life of the parts and components it produces, potentially saving tens-of-thousands of dollars in rework and/or warranty expenses.

**"Thanks to MMEC, H-E Parts has been able to certify 65+ employees in NDT techniques. The training has helped H-E Parts improve efficiency with inspection, quotations, and repairs. These efficiencies have also helped H-E Parts lower the TCO [Total Cost of Ownership] for our customers and strengthen our trust and relationship with them."**

-Nate Harris, Manufacturing Production Manager, H-E Parts

## RESULTS



**\$12,000** invested in new equipment



**\$14,000** invested in employee training

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