



Conversion Transforms 10-Piece Weldment to Single Gray Iron Casting

Case Study : Agricultural OEM Customer

COLLABORATION WITH OUR CUSTOMERS can lead to **reduced costs, quality improvements, and, often, better sleep at night.**

A recent design project with the world's largest agricultural equipment manufacturer is a shining example of what working together on casting designs can accomplish.



Situation



Solution



Result

? Situation

Our customer needed a stronger, lighter alternative to the 66 pound, multi-part weldment used in their equipment. The old model was heavy and awkward to work with. It needed a makeover.



Final
Production
Piece

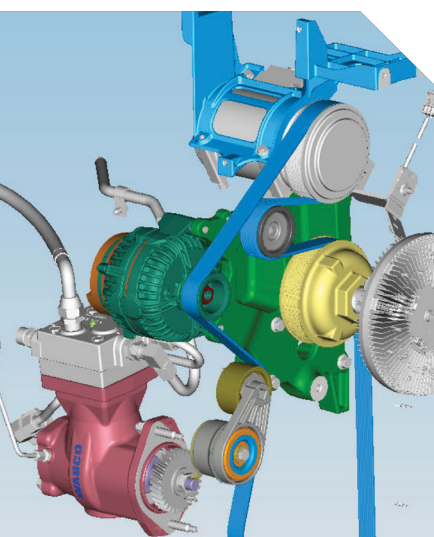
“Basically,” said Plant 5 manager Shelby Applegate, **“they asked us to make it better... and we did.”**

Solution

Waupaca Foundry had the opportunity to do some design modifications that would convert their part from a weldment to a ductile iron casting. Building on a history of collaboration and leadership, Waupaca Foundry worked with the customer to create the perfect part. This is something Tooling Engineer Charles “Robert” Guillaume said could happen at any step of the process, but **“it’s important for everyone to be on the same page.”**

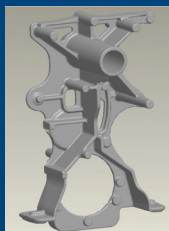
Result

By working closely with our customer, **we transformed a ten-piece part into a one-piece part.** We made it 23 pounds lighter. The redesign simplified tractor assembly for our client and reduced their inventory and administrative costs. Once a highly specialized part, the new design’s higher quality replaced several fabricated and weldment parts, becoming a common component to a number of the customer’s tractor engines.

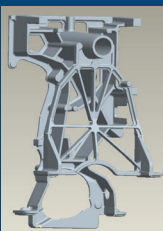


BEFORE: A heavy, complex, multi-part weldment in need of a makeover to become stronger and lighter.

COLLABORATIVE DESIGN: Through innovative design modifications, we were able to reduce the complexity and weight of this part.



Feasibility
Design 1



Feasibility
Design 2

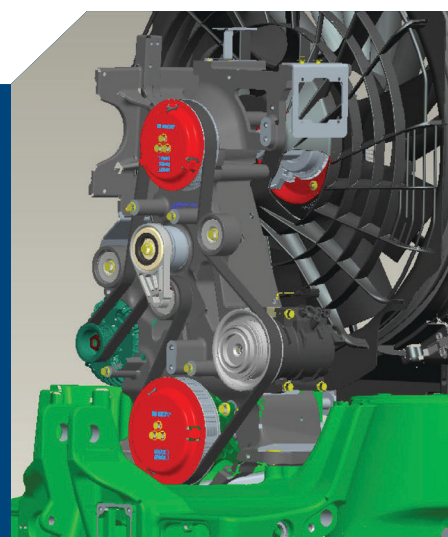


Durability
Design



Production
Part

At Waupaca Foundry, **we’ve always known the virtue of collaborating and being willing to tackle tough challenges.** Both teamwork and problem-solving are absolutely integral to making the best iron castings in the world.



AFTER: The switch from weldment to a single, gray iron casting further established castings as viable cost-saving solutions for OEMs.



Looking for casting quality improvement, engineering support, or cost reduction? Waupaca Foundry is eager to join your team in the problem-solving process.

Connect with us at marketing@waupacafoundry.com