



Case Study | Industrial Heavy Machinery

HARVESTER TIER 4 FINAL (4F) ENGINE INSTALLATION

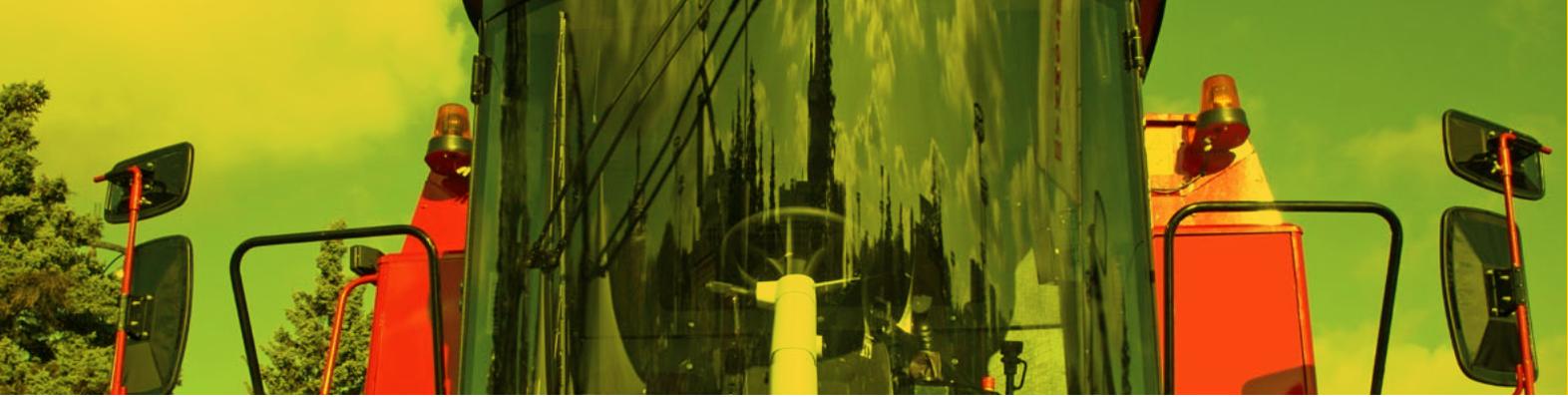
AN AGRICULTURAL MACHINERY MANUFACTURER WAS LOOKING FOR A PARTNER WHO COULD INSTALL A NEW TIER 4F ENGINE ON A HARVESTER CURRENTLY IN PRODUCTION.

THE CHALLENGE

- Installing a Tier 4F industrial engine on a harvester for the first time.
- Implementing the Tier 4 engine while optimizing and utilizing the existing Tier 3 structure.
- Finding a solution for the engine installation while considering the engine supplier's requirements.
- Seeking approval from the engine supplier prior to validating the final engine installation solution.

THE COMPANY

One of the world's leading manufacturers of tractors, harvesting machines and diesel engines. The organization, based in Europe, has production sites, importers and dealers around the world.



THE SOLUTION

- Found a solution that would allow the carry over of some parts and related placements which allowed for a cost savings on implementation and production.
- Redesigned the engine hood, air compressor, grain tank, straw chopper, top engine cover and service platform to fit the new design solution.
- Collaborated with the customer's qualified supplier and worked with their special pipe diameters/sizes.
- Managed the exhaust heat radiation effects using compensation parts as bellows.
- Considered the necessary requirements during the concept and design phases. Specifically focused on the protection and avoidance of hot zones, prevention of "pocket" areas that collect dust and straw, and driver safety features (i.e., handrails, access features in various areas, etc.).
- Developed a new solution that utilized Design for Manufacturing and Design for Assembly approaches.
- Exceeded client's expectations and received feedback that we are on top of their engineering services supplier list for future project engagement.

THE RESULT



Cost savings



Project completed on time



Environmentally friendly

ABOUT US

Tata Technologies is a global engineering and product development IT services company that is focused on fulfilling its mission of helping the world drive, fly, build and farm by enabling manufacturing companies across the automotive, aerospace and industrial heavy machinery verticals realize better products and drive efficiencies in their businesses. There are two components to our value proposition – managing and delivering outsourced engineering services and products for our manufacturing clients, and helping them identify and deploy technologies that are used to conceptualize, design, validate, build, test, benchmark and realize better products. For more information, visit www.tatatechnologies.com.