A LARGE MANUFACTURER OF CONSTRUCTION equipment WANTED A NEW TIER 4 WHEEL Loader AND ASKED TATA TECHNOLOGIES TO PACKAGE THE SELECTIVE CATALYTIC REDUCTION (SCR) AFTER-TREATMENT SYSTEM.

THE CHALLENGE

- Designing all the after-treatment components while keeping space constraints in mind.
- Reducing the number of fittings required for the after-treatment system.

THE COMPANY

The world's leading manufacturer of construction and mining equipment, diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives. This global corporation, with a distribution network of nearly 200 dealers serving 182 countries, is based in the United States.
THE SOLUTION

Phase 1 – Design
- Designed the SCR after-treatment system components using engine installation expertise.

Phase 2 – Develop
- Placed the SCR muffler under hood.
- Developed and validated all supporting brackets for the after-treatment system components.

Phase 3 – Advanced
- Rerouted all fluid lines.
- Designed, integrated and validated the SCR diesel exhaust fluid (DEF) tank with all supporting brackets.
- Reduced the number of fittings including adapters, couplings and elbows.

THE RESULT

Designed components for ease of assembly and maintenance

DEF tank could be used on various equipment models with different engine configurations

Reduced costs

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.