



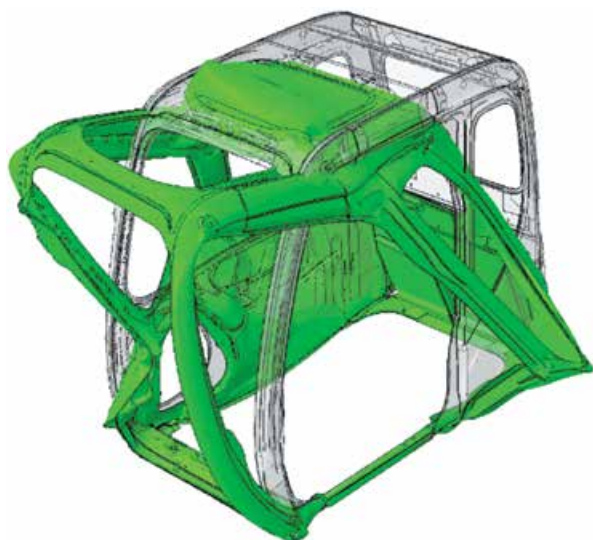
ArcelorMittal

High strength steel solutions for roll over protection structures (ROPS)

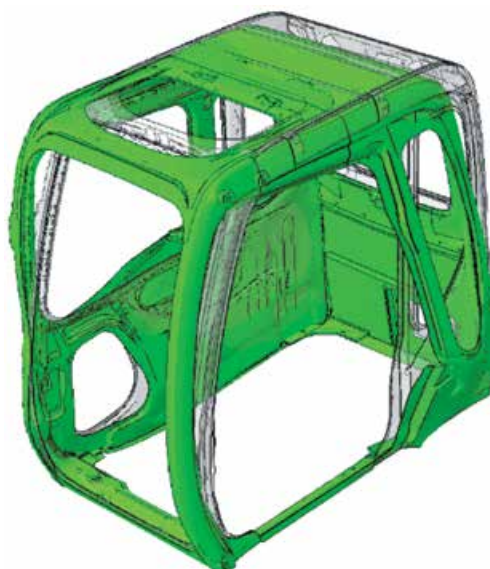
- Cabs (ROPS) on various heavy construction equipment are fabricated using 350 MPa steel. Compliance of the ROPS design with ISO 3471_1 is a regulatory requirement for the industry.
- ArcelorMittal R&D developed a high strength steel solution for this application. This solution reduces the weight of the cab by 24 percent and also meets the ISO requirement.
- This was possible with the combination of Dual Phase and Armstrong® grades produced by ArcelorMittal.
- This solution also opens this industry to modern manufacturing processes like forming and stamping, moving away from the traditional bending and welding operations.



Baseline



Armstrong® redesign



Simulations were performed using Abaqus explicit analysis.



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