

Ponsse Oyj

Forest Machine Manufacturer

Finland



www.ponsse.com



Activity

With over 35 years of experience, the Ponsse Group is now a globally significant forest machine manufacturer.

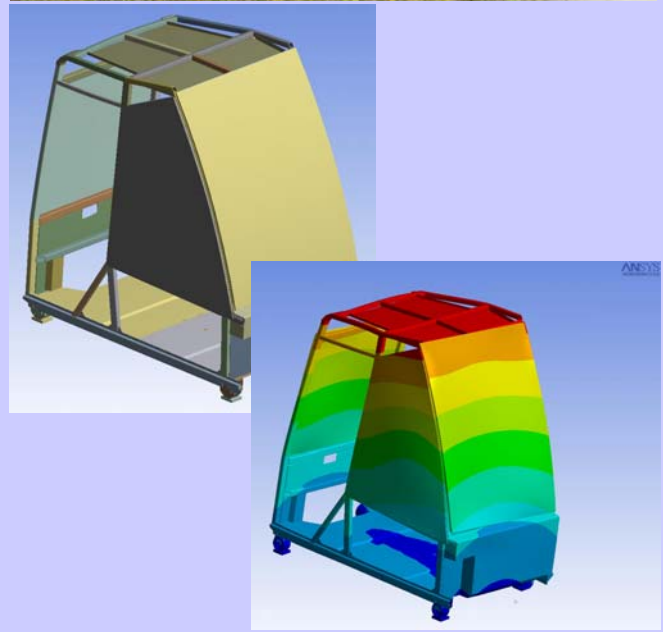
Ponsse's products combine sophisticated technology and environmental friendliness; a wide variety of solutions, such as the utilization of environmentally compatible biodegradable hydraulic oil in machines, ensure that any impact to forest environments resulting from wood harvesting is minimized. Close cooperation with customers continues; Ponsse intends to maintain its position as a leading manufacturer of forest machines in the future as well.



Testimonial

"We changed from earlier FE analysis software to ANSYS DesignSpace and ANSYS Professional because of ANSYS Workbench's robust contact capabilities with large SolidWorks assemblies, ability to mesh complex models without simplifying CAD geometry and ANSYS Workbench's ease of use. Now even designers can do demanding early phase analysis."

Markku Penttinen
Design Manager
Ponsse Oyj



Challenge

- To design strong forest machines with as light weight structures as possible
- Complicated fatigue loading conditions
- To do full simulations using large assemblies without defeaturing
- Because of the nature of fatigue stresses, mesh density has to be easy to refine locally but at the same time keep element model size (number of DOFs) as small as possible

Solution

Deploy ANSYS DesignSpace and Workbench with Professional:

- Reducing the number of prototypes
- Analyze structural performance at the earlier stage of the design
- Short learning curve and ease of use

Benefits

- Because no defeaturing is needed larger scale design alternatives can now be analysed in shorter time
- Easy to locate the most critical spots under fatigue loads and redesign them
- Less or none design changes in the prototype phase, first prototype can be the right one!