

which suggests that the local arrangement of supporting members plays a key role in controlling the load path and the resulting stress concentration. Therefore, although the current reinforcement scheme is sufficient for the investigated loading envelope, the regions associated with the 180° and 0° cases should be regarded as critical hot-spot zones for inspection and maintenance (Abdullah et al., 2023; Dragatogiannis et al., 2024).

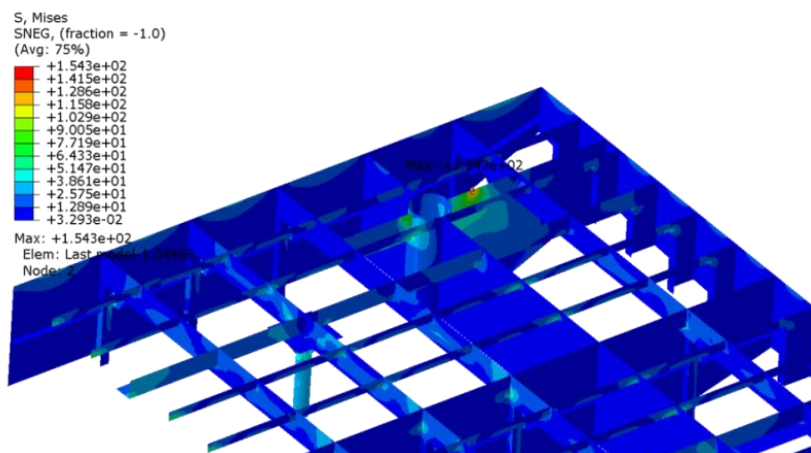


Figure 17 Von mises stress results at 0° crane rotation

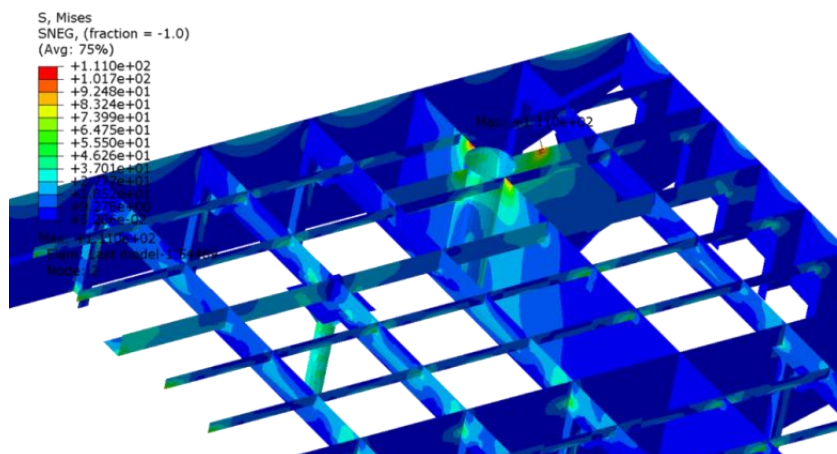


Figure 18 Von mises stress results at 45° crane rotation

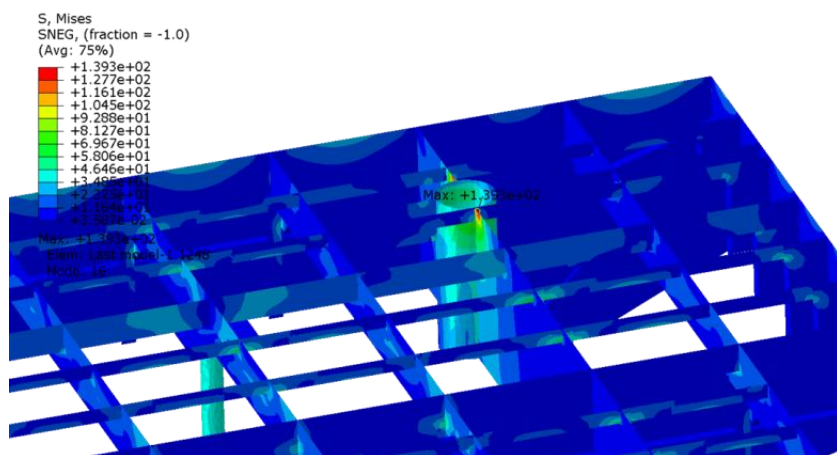


Figure 19 Von mises stress results at 90° crane rotation