

Figure 6-7: The BEM mesh for the analysis of a cracked sheet with a single repair patch.

at the corner as indicated in Figure 6-6. At those locations, the fastener load is maximum and the sheet gross stress is still about the same as the applied stress. The fastener forces in the y -direction, calculated for the fasteners at $x = 304.8$ mm (see Figure 6-6), are shown on the bottom part of Figure 6-8 alongside the values presented by Swift [112] and Tong *et al.* [116]. Results are within 10% of those reported by Tong *et al.* Higher discrepancies observed with

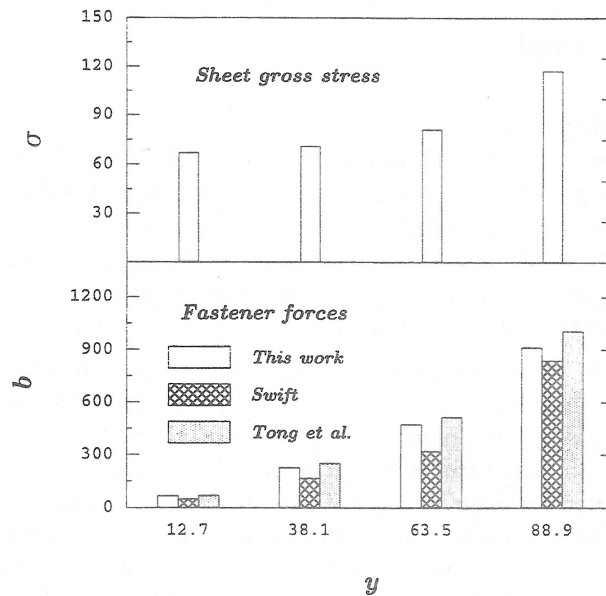


Figure 6-8: Results for single patch repair design. On bottom: fastener forces in the y -direction for the fasteners in the critical row. The values of the forces are in Newtons (N). On top: sheet gross stress in the y -direction, corresponding to the positions of the fasteners in the critical row. The values are presented in MPa and correspond to points located 12.7 mm ($p/2$) above the fastener centre.