

## 曲线焊缝布置对激光拼焊板成形性能的影响

陈炜 李卫国 杨继昌 张家骅

江苏大学

关键词: 激光拼焊板 曲线焊缝 成形性能

摘要: 对拼焊板盒形件设计了4种不同位置的曲线焊缝,应用动力显式模拟软件模拟了差厚拼焊板盒形件的成形过程,研究了曲线焊缝的4种不同布置方式对差厚拼焊板盒形件成形性能的影响。研究表明,不同位置的曲线焊缝对拼焊板盒形件的焊缝移动影响差异较大,对焊缝连接区域变形程度的影响不同。实验验证了法兰上的焊缝移动,试验结果与有限元模拟吻合较好。Four different nonlinear weldlines were arranged on the box with laser tailor welded blanks (LTWBs) with different thicknesses, and the formability of box with LTWBs based on different arrangements of non-linear weld line was studied by means of dynamic explicit finite element method. The simulated results demonstrate that different arrangements of non-linear weld line have important effect on the weld line movement of LTWBs box and deformation of connecting region of the weld line. The weld line movement on the flange of the box is validated by experiment. The simulated results are in good agreement with the experimental results.

[查看全文](#) (请使用Adobe Acrobat 6.0版本浏览) [返回首页](#)

[引用本文](#)