

应用干涉云纹测量工艺应力分布

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摘要 本文就冷胀孔周残余应力分布的测量技术和干涉螺接孔周干涉应力分布的测量技术进行了实验研究。沿着径向将试件切割, 以释放欲测的应力, 同时用干涉云纹技术测量由于释放应力而引起的附加应变场。文中还就残余应力在循环载荷作用下的松弛问题进行了实验研究。提供了典型的实验结果, 讨论了引起实验误差的主要原因。

关键词 [残余应力](#) [干涉应力](#) [干涉云纹](#) [冷挤压](#)

分类号

APPLICATION OF MOIRE INTERFEROMETRY TO TECHNOLOGICAL STRESS DISTRIBUTION MEASUREMENT

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Abstract

An experimental study was conducted to measure residual stress distribution around cold-expanded fastener holes and interference stress distribution near interference fit fastener holes. Investigated stresses were relieved by cutting specimens along a radial direction, and additional strain fields created by relieving the stresses were measured using moire interferometry. Relaxation of the residual stress caused by circular loading was investigated experimentally. The results of typical test are presented a...

Key words [residual stress](#) [interference stress](#) [moire interferometry](#) [cold-expanded fastener](#)

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