



Laser Peening Effects on Friction Stir Welding

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BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 54 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. Friction Stir Welding (FSW) is a welding technique that uses frictional heating combined with forging pressure to produce high strength bonds. It is attractive for aerospace applications. Although residual stresses in FSW are generally lower when compared to conventional fusion welds, recent work has shown that significant tensile residual stresses can be present in the weld after fabrication. Therefore, laser shock peening was investigated as a means of moderating the tensile residual stresses produced during welding. This slide presentation reviews the effect of Laser Peening on the weld, in tensile strength, strain, surface roughness, microhardness, surface wear/friction, and fatigue crack growth rates. The study concluded that the laser peening process can result in considerable improvement to crack initiation, propagation and mechanical properties in FSW. This item ships from La Vergne, TN. Paperback.



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