ERRATA

Rational Basis for Increased Fillet Weld Strength

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Errata Two—Missing Last Page

a rational equilibrium check to the model. The authors of Ref. (7) have included both the varying fracture angle and extra force-rotational equilibrium conditions in their more comprehensive analysis of weld strength. Such a complete theoretical development is presented therein to confirm the weld strength increases observed in the tests but with the resultant trade-off in formulation complexity.

While the first-order equilibrium model presented in this paper is admittedly limited because of the simplifying assumptions just discussed, it is believed to be of some general value in illustrating the basic force mechanisms that contribute to the fillet weld strength variation.

CONCLUSIONS

A simple expression can be derived to show in-plane fillet weld strength will increase beyond its lower bound shear yield as a function of the applied load angle. This development can supplement the existing experimental data for educational and demonstrational purposes. Other alternative, more rigorous and detailed analytical formulations are also available in the literature. The actual and total design criteria covering this response are given in the 1993 AISC LRFD Specification Appendix J2.4.

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