

Appendix L: Inked Crack Profile Test Data

Appendix L contains inked crack profile data for each specimen tested by simple lag screw insertion, removal, inking and measurement. Tables and figures vividly demonstrate comparisons between the following parameters: (1) half crack profile vs. distance from lag screw tip, (2) crack surface area vs. load (capacity and 5% offset yield), and (3) pilot hole / lag screw diameter vs. crack surface area. A portion of chapter 4 details the observations made from Appendix L tables and figures. The following clarifications are made to enable the reader to better understand terms used for the accompanying figures:

Crack surface area = Inked surface area (total inked profile) on one face of the split wood specimen

Half crack length = Half the total inked crack lengths measured at 1/4 in. intervals, which, when integrated, form half the inked profile

Capacity & 5% offset yield load = Loads achieved from lag screw connection tests

Pilot hole / lag screw diameter = Pilot hole diameter / nominal lag screw diameter

Distance from lag screw tip = Distance taken from location of inked length measurement to extreme tip of lag screw

Nomenclature for group identification is, for example, DF 1/2-1/8. This indicates crack length and area are for DF species using 1/2 in. diameter lag screws with 1/8 in. diameter pilot holes.