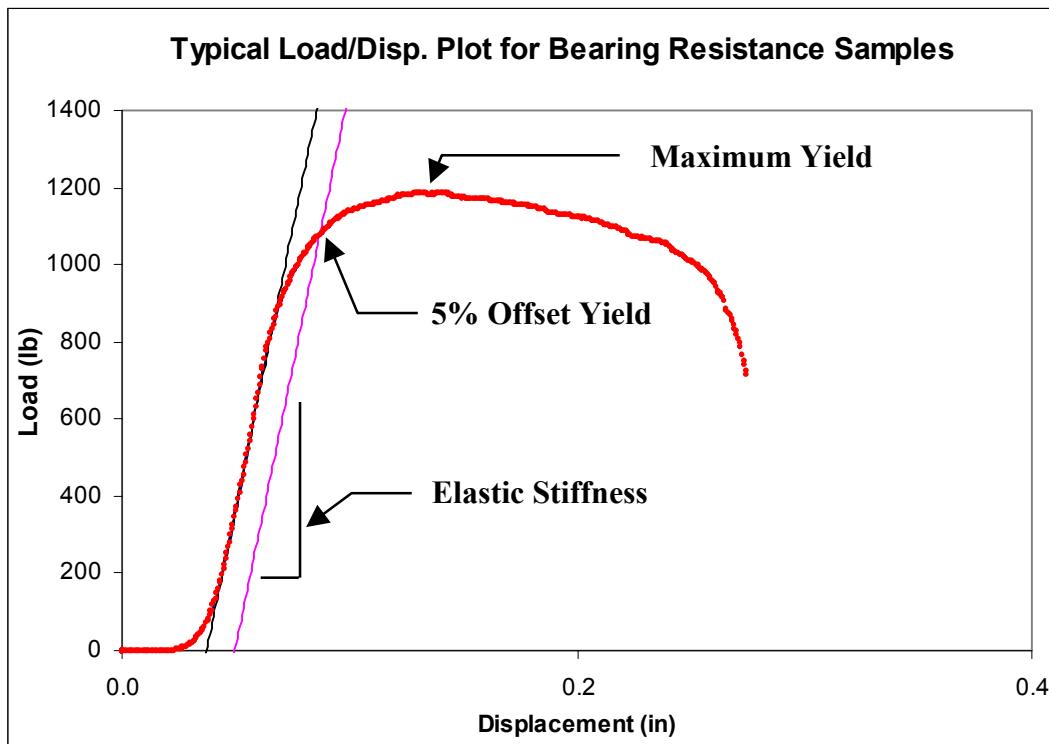


Appendix D – Bearing Resistance Tests: Plots

This section contains all the dowel embedment test plots as well as all fastener bending test plots. Tests presented here are the basis for the yield mode calculations. Similar to the connection tests plots, there are some significant points and secant lines found along the load-slip curve. An example bearing resistance plot, below, indicates these features. Specifically, these are elastic stiffness, 5% offset yield, and the maximum yield. Graphs are organized by specific material:

- Main member tests; Figure D. 1 to Figure D. 40,
- Side member tests; Figure D. 41 to Figure D. 160, and
- Fastener bending tests; Figure D. 161 to Figure D. 180.



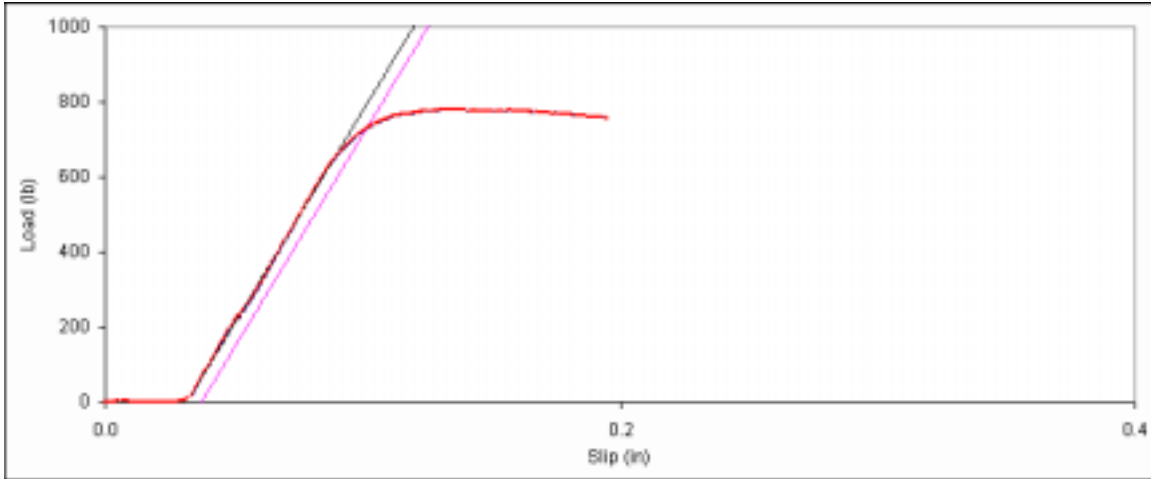


Figure D. 1: Bearing embedment plot for main member sample 6d-1.

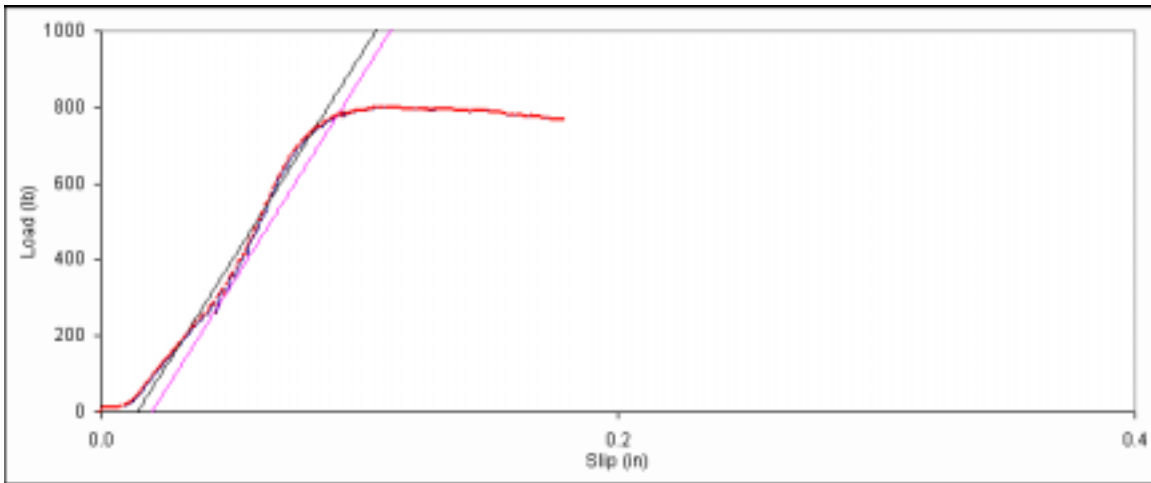


Figure D. 2: Bearing embedment plot for main member sample 6d-2.

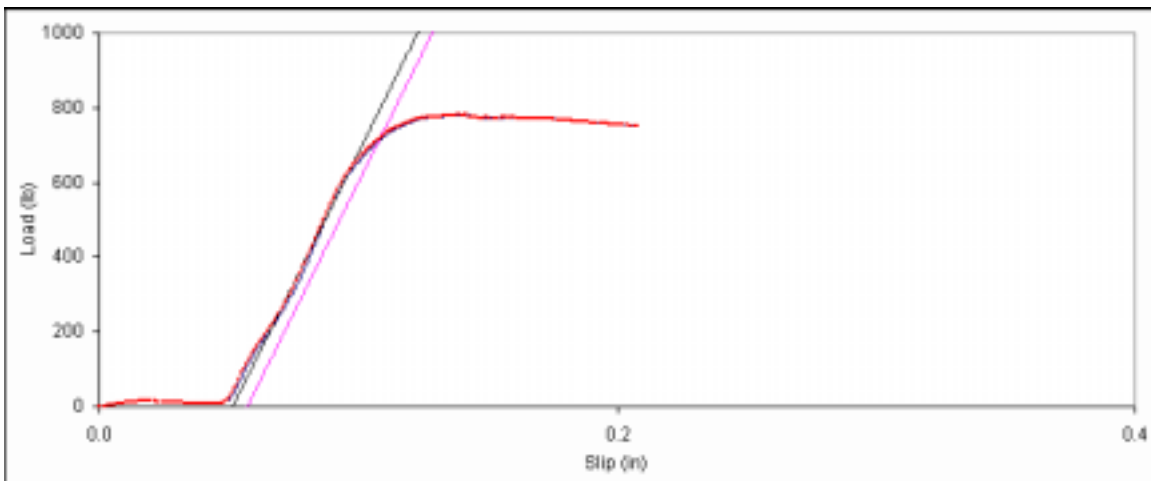


Figure D. 3: Bearing embedment plot for main member sample 6d-3.

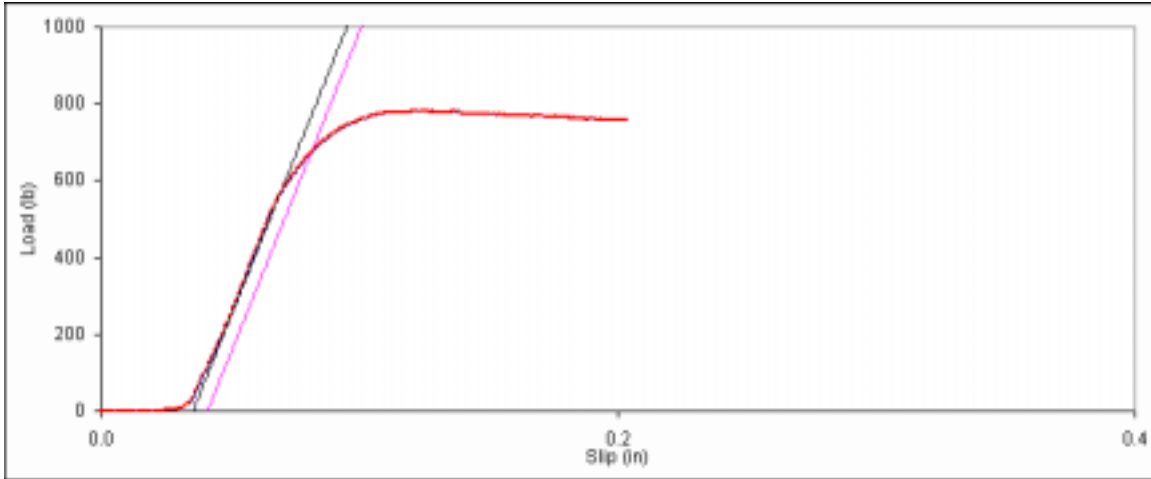


Figure D. 4: Bearing embedment plot for main member sample 6d-4.

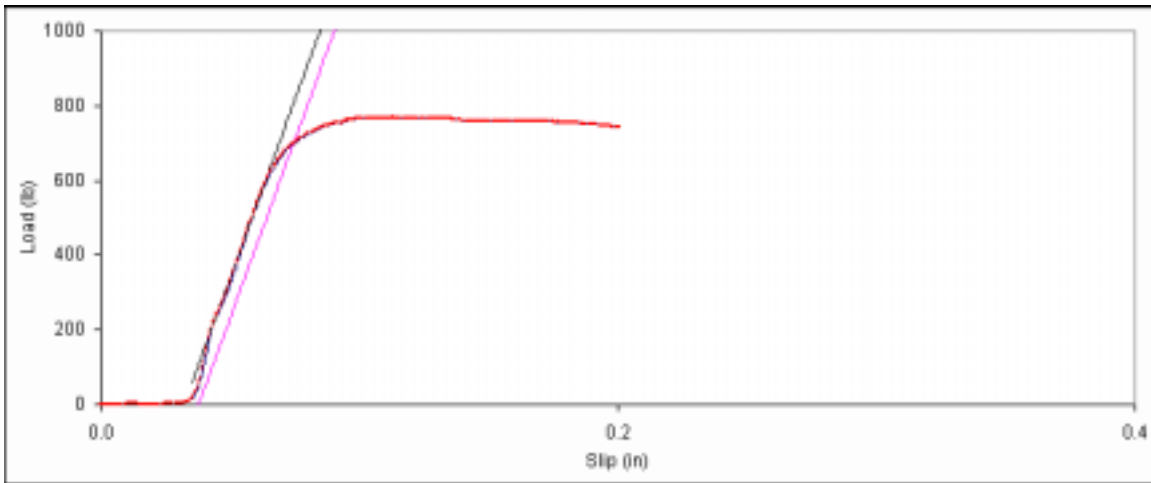


Figure D. 5: Bearing embedment plot for main member sample 6d-5.

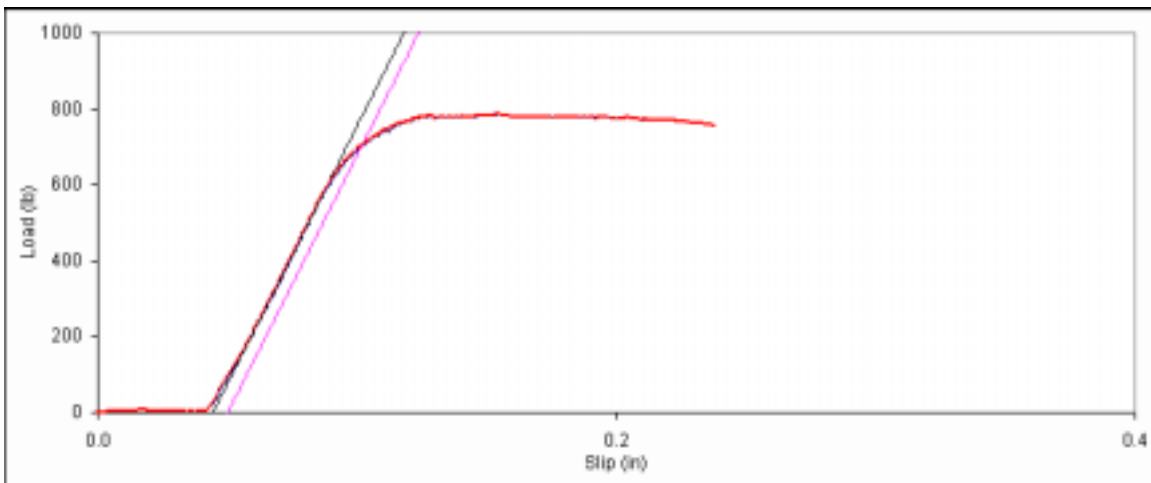


Figure D. 6: Bearing embedment plot for main member sample 6d-6.

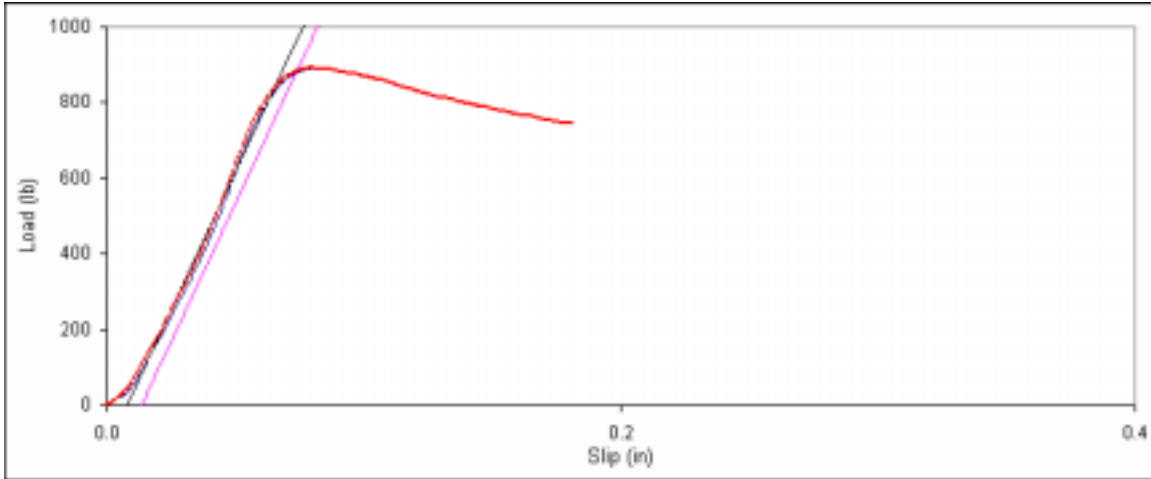


Figure D. 7: Bearing embedment plot for main member sample 6d-7.

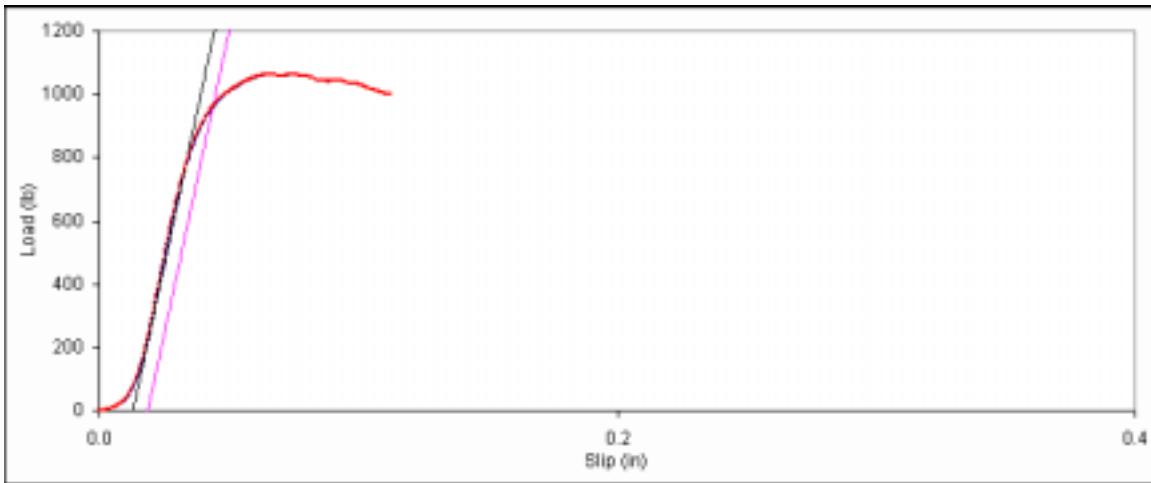


Figure D. 8: Bearing embedment plot for main member sample 6d-8.

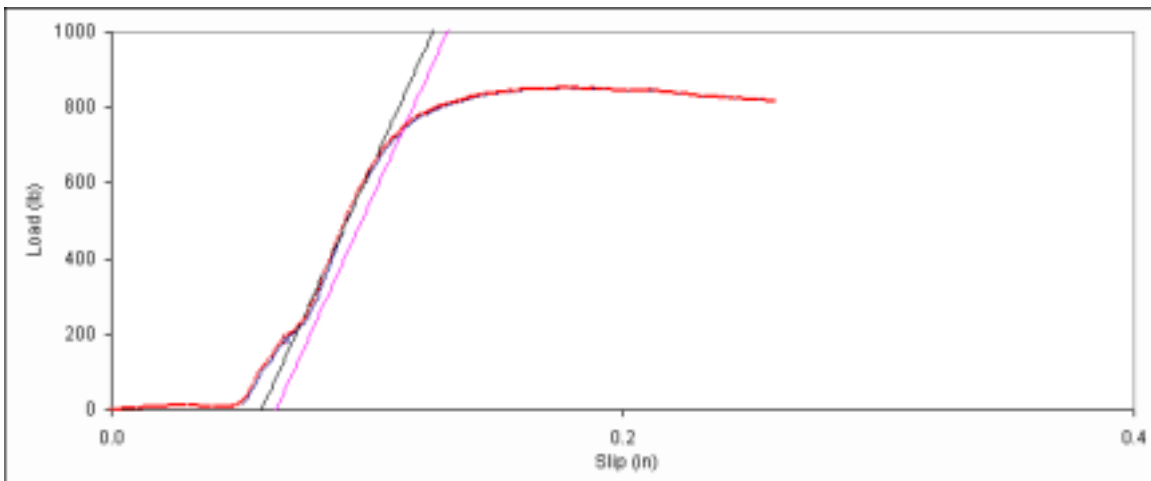


Figure D. 9: Bearing embedment plot for main member sample 6d-9.

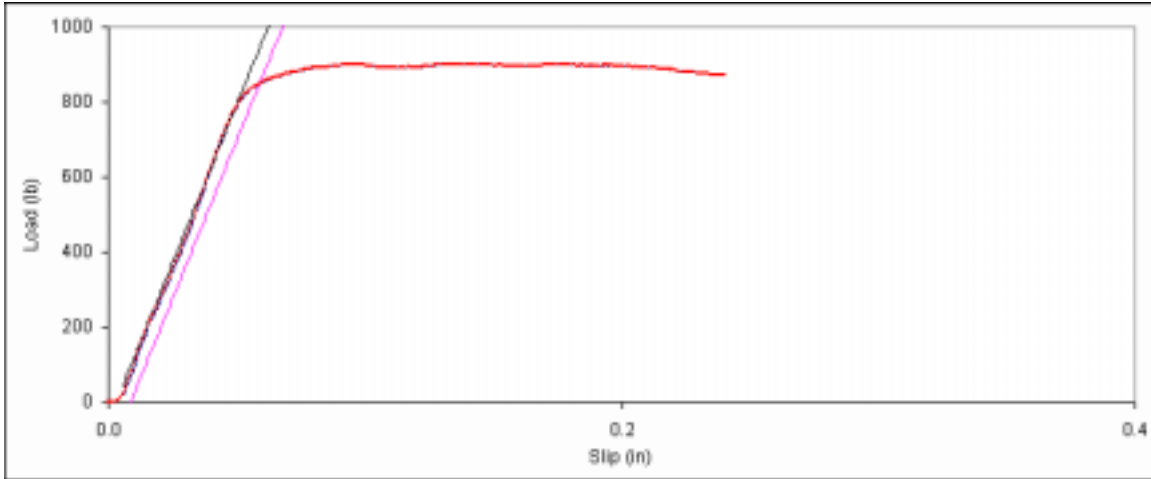


Figure D. 10: Bearing embedment plot for main member sample 6d-10.

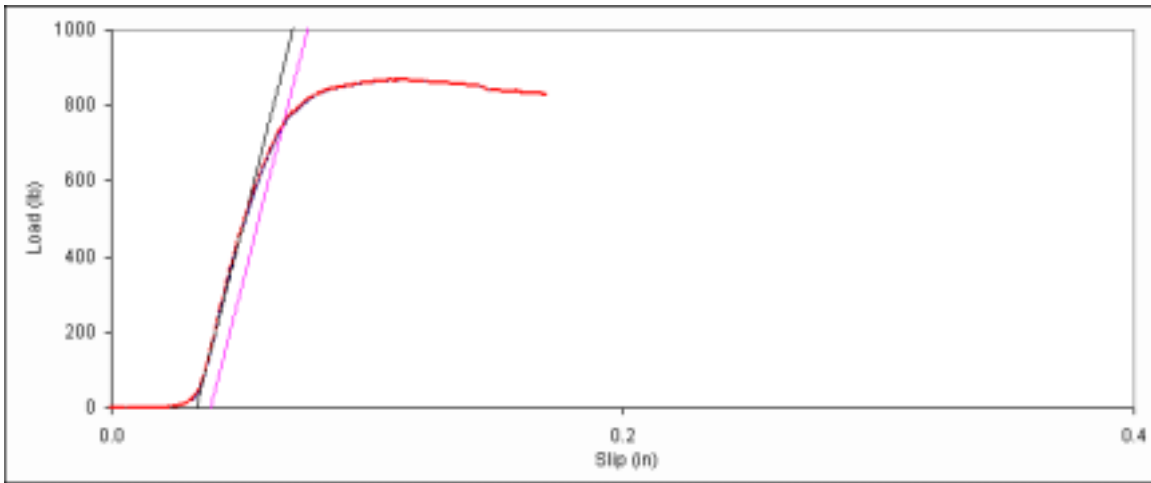


Figure D. 11: Bearing embedment plot for main member sample 6d-11.

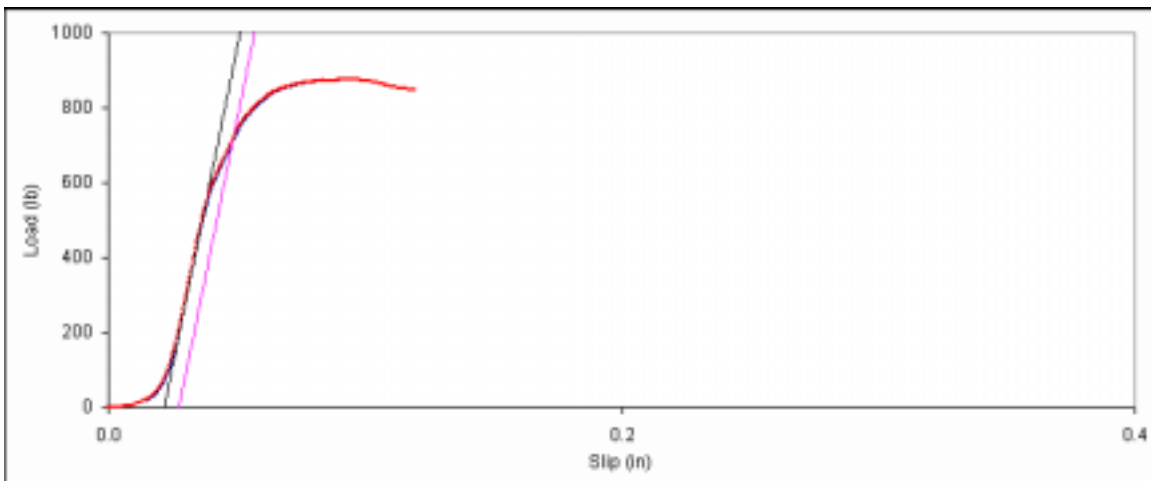


Figure D. 12: Bearing embedment plot for main member sample 6d-12.

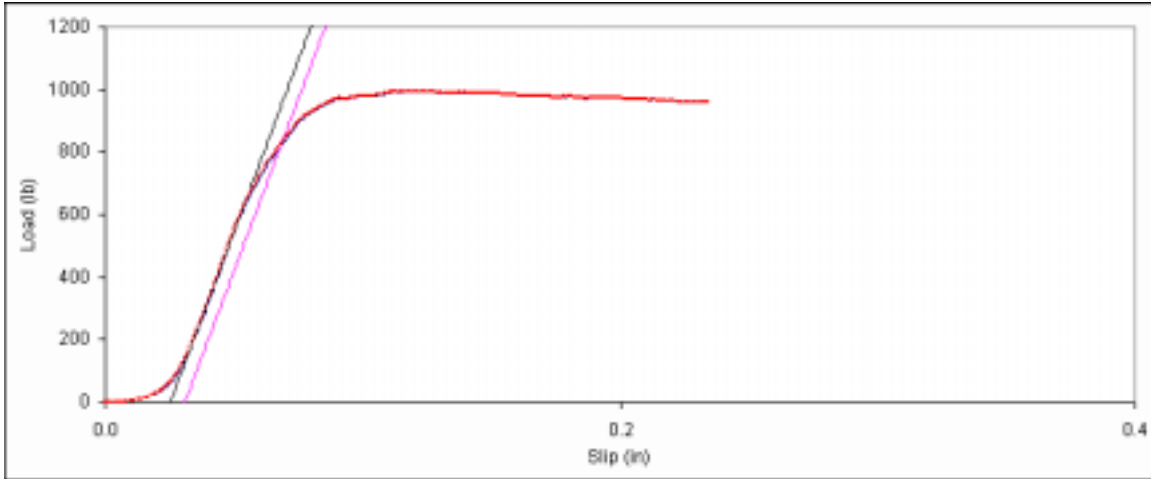


Figure D. 13: Bearing embedment plot for main member sample 6d-13.

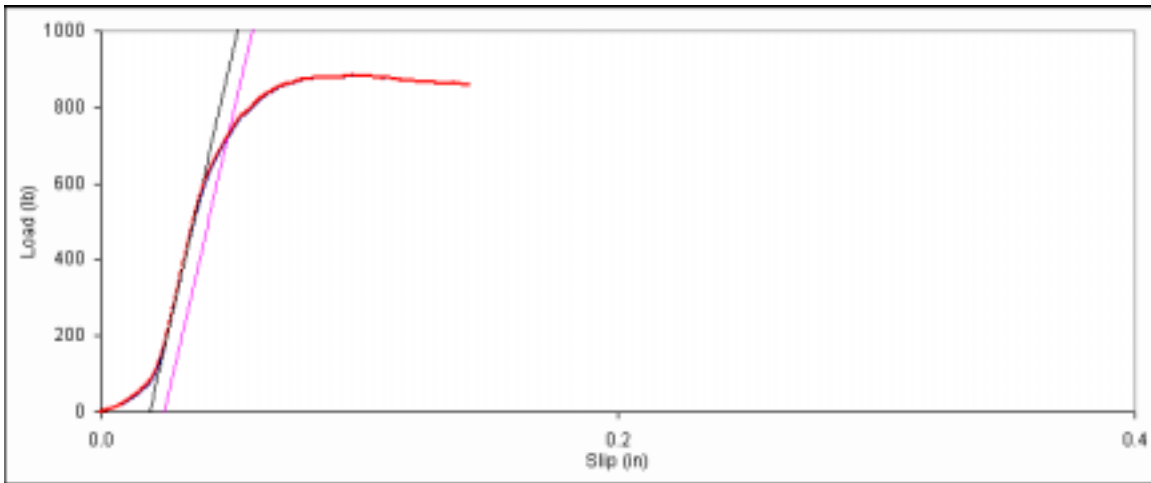


Figure D. 14: Bearing embedment plot for main member sample 6d-14.

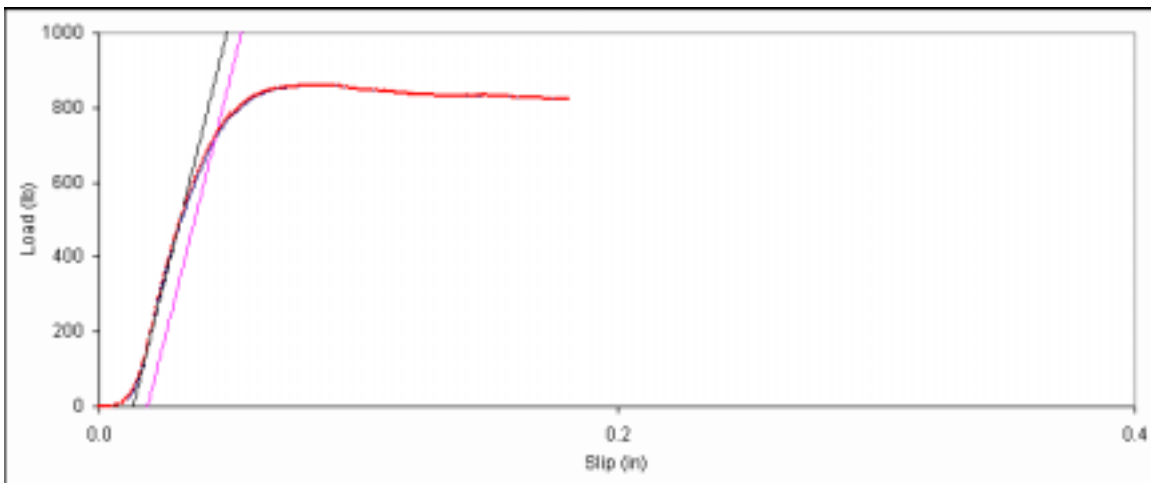


Figure D. 15: Bearing embedment plot for main member sample 6d-15.

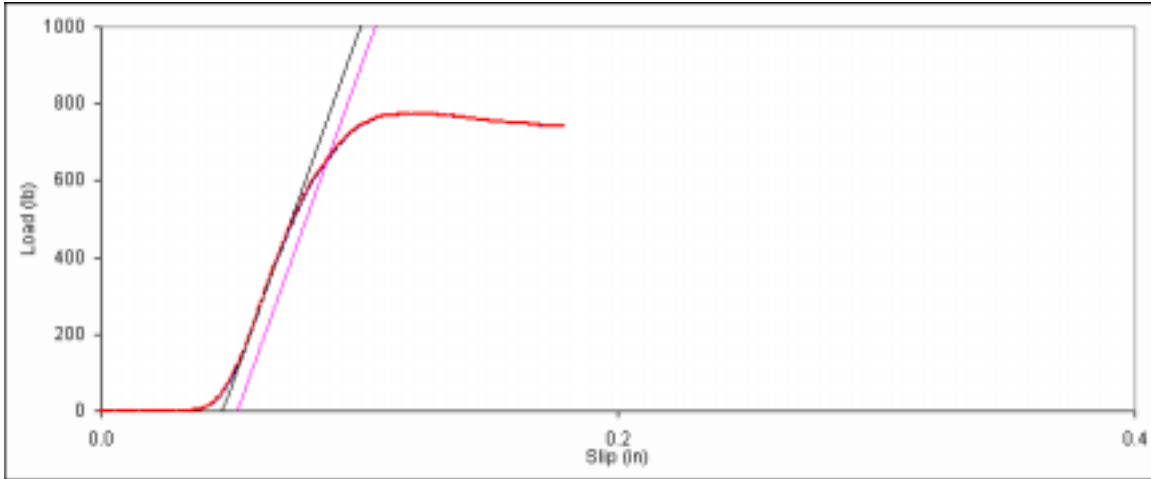


Figure D. 16: Bearing embedment plot for main member sample 6d-16.

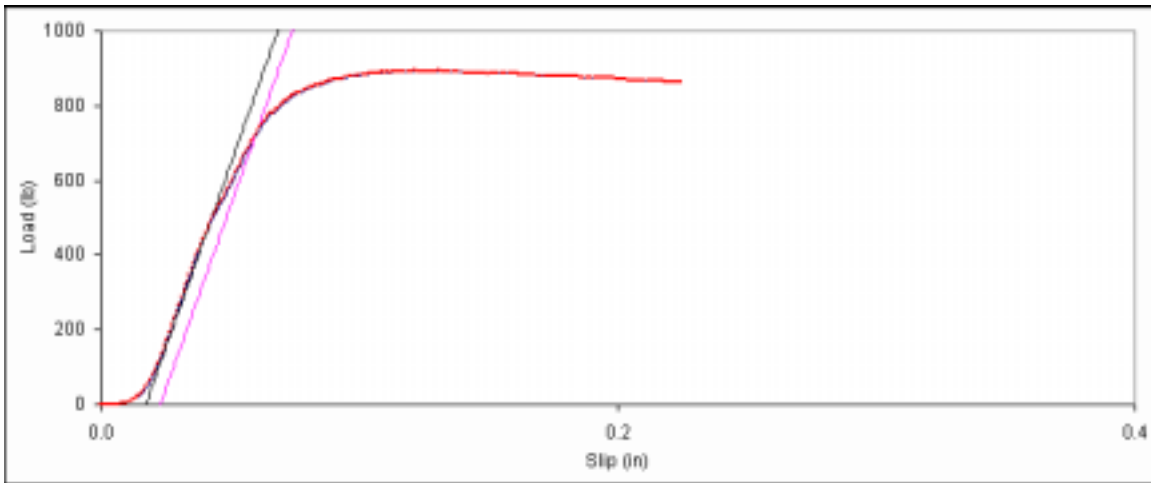


Figure D. 17: Bearing embedment plot for main member sample 6d-17.

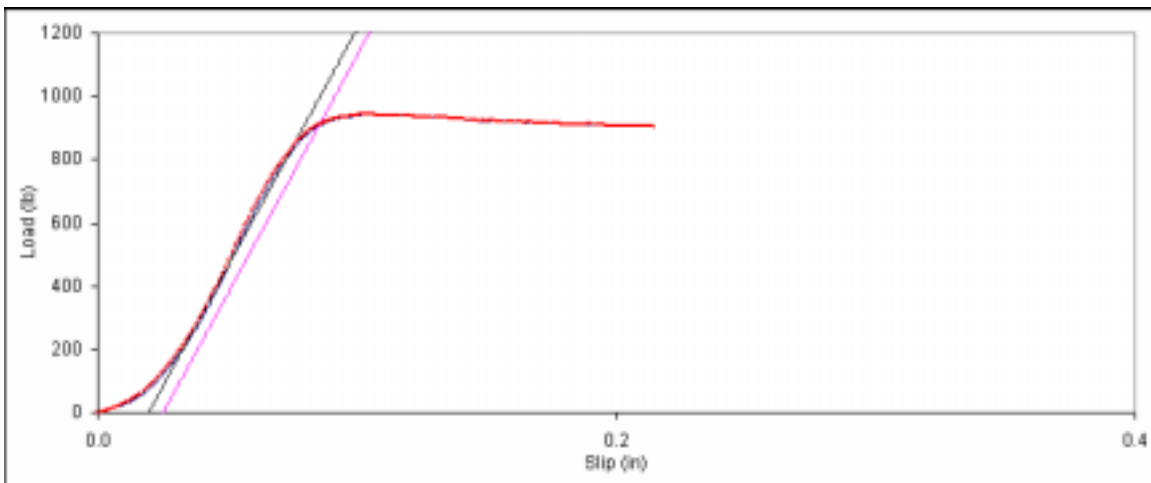


Figure D. 18: Bearing embedment plot for main member sample 6d-18.

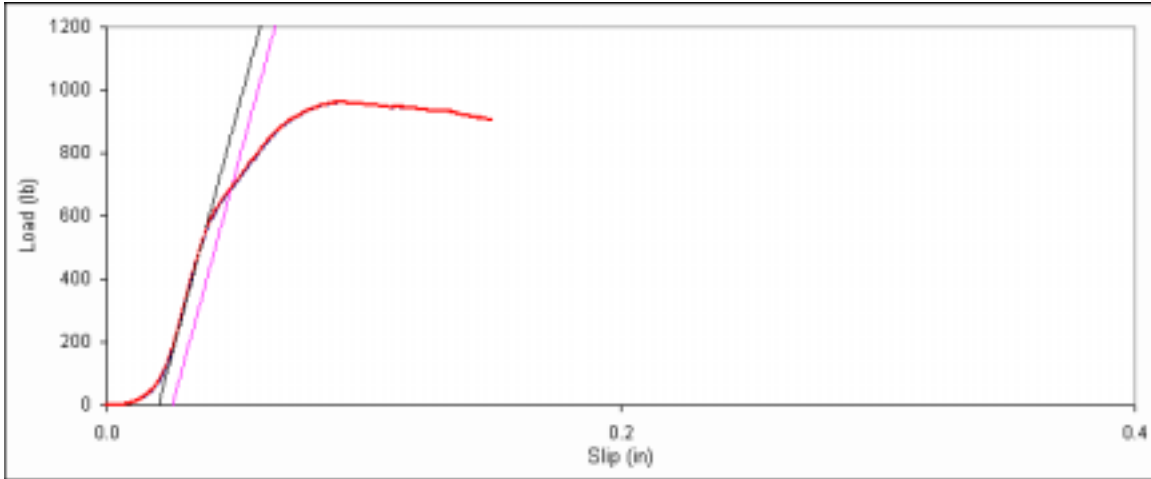


Figure D. 19: Bearing embedment plot for main member sample 6d-19.

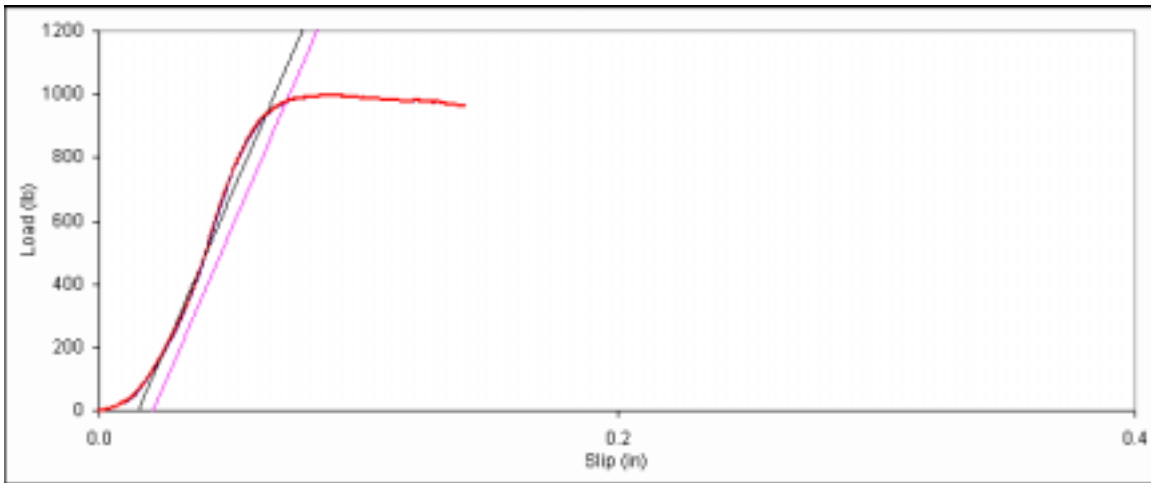


Figure D. 20: Bearing embedment plot for main member sample 6d-20.

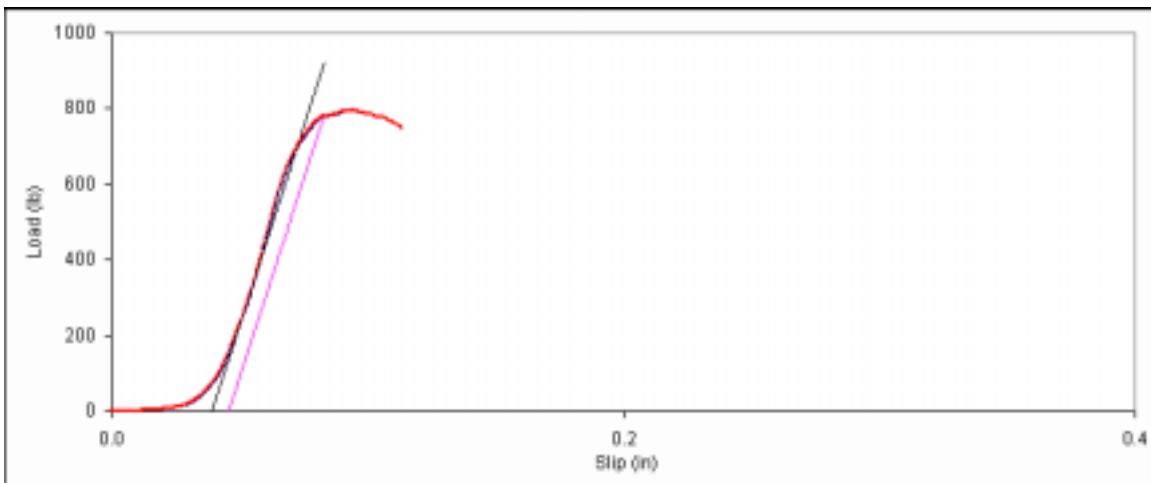


Figure D. 21: Bearing embedment plot for main member sample 8d-1.

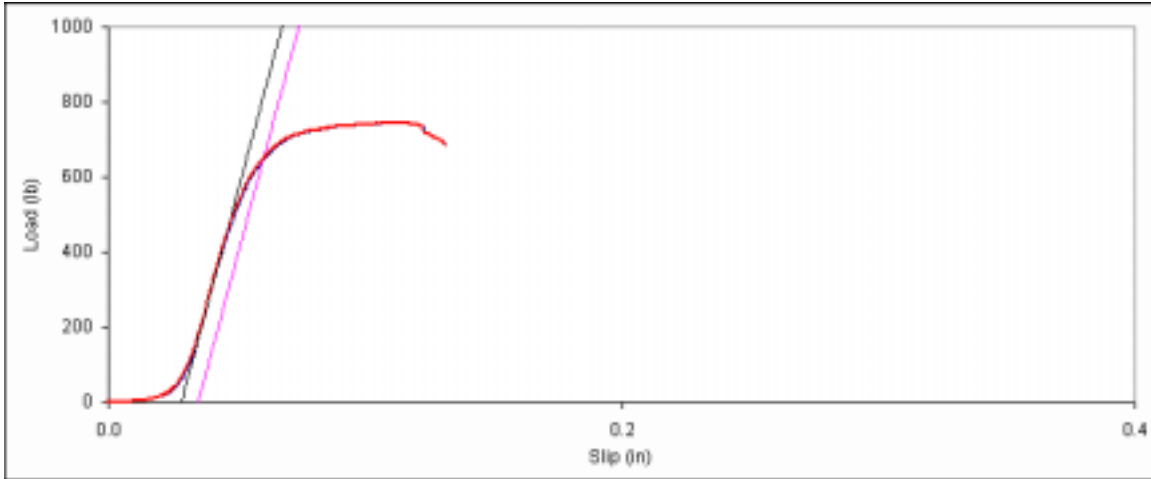


Figure D. 22: Bearing embedment plot for main member sample 8d-2.

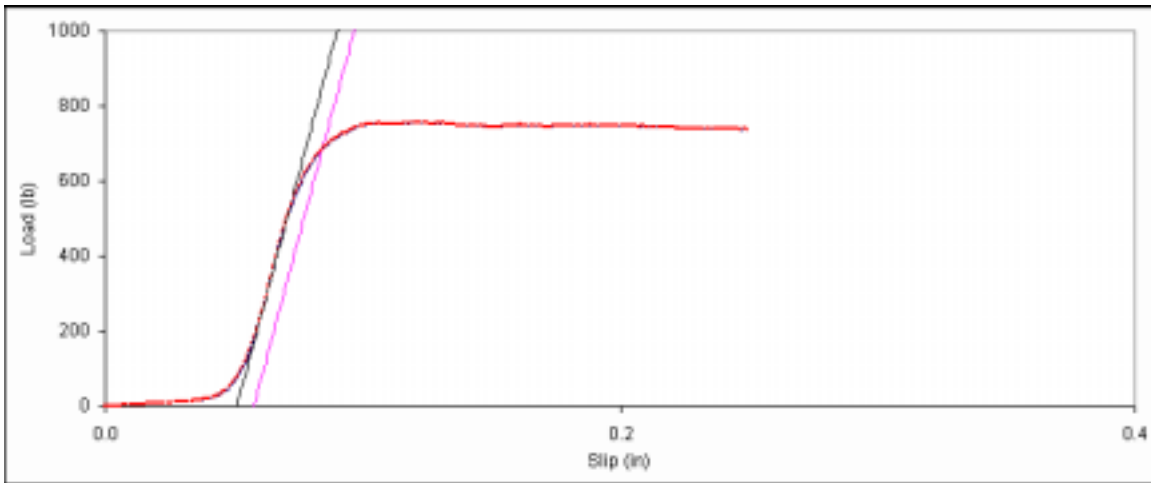


Figure D. 23: Bearing embedment plot for main member sample 8d-3.

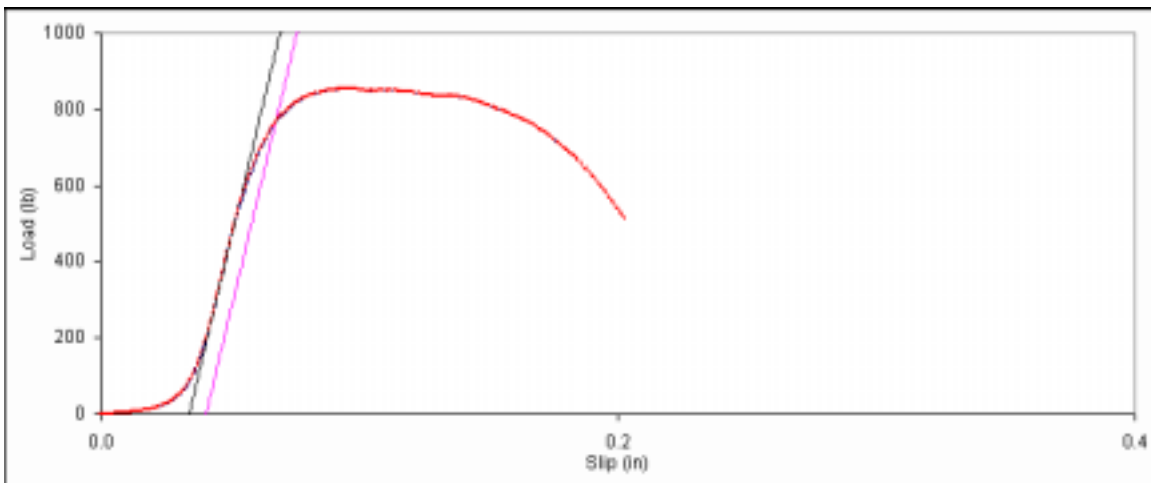


Figure D. 24: Bearing embedment plot for main member sample 8d-4.

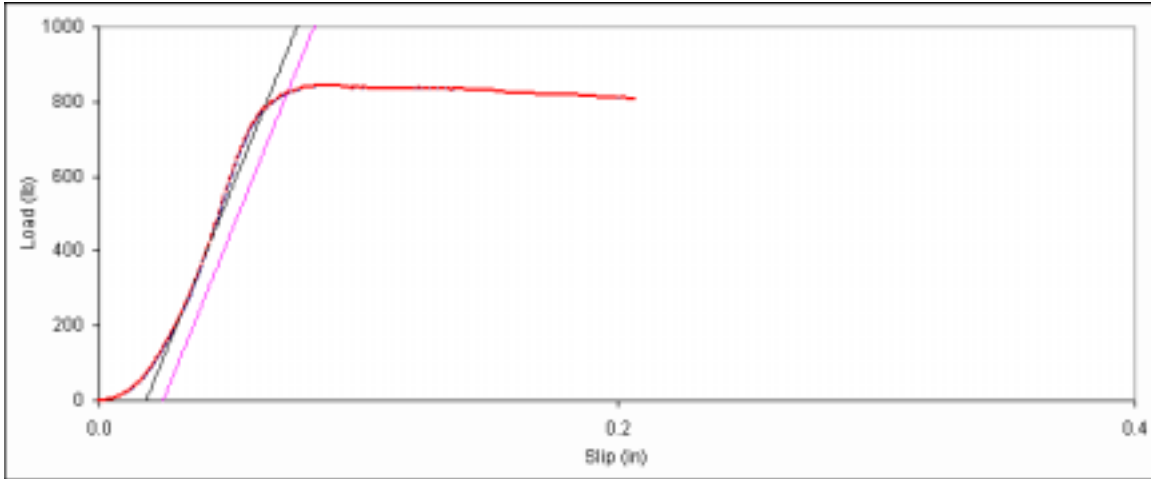


Figure D. 25: Bearing embedment plot for main member sample 8d-5.

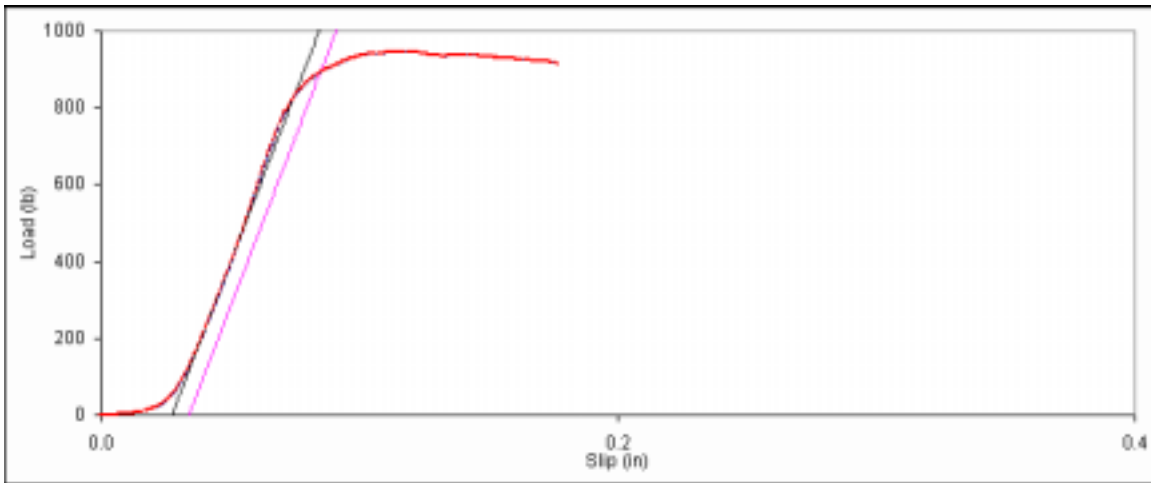


Figure D. 26: Bearing embedment plot for main member sample 8d-6.

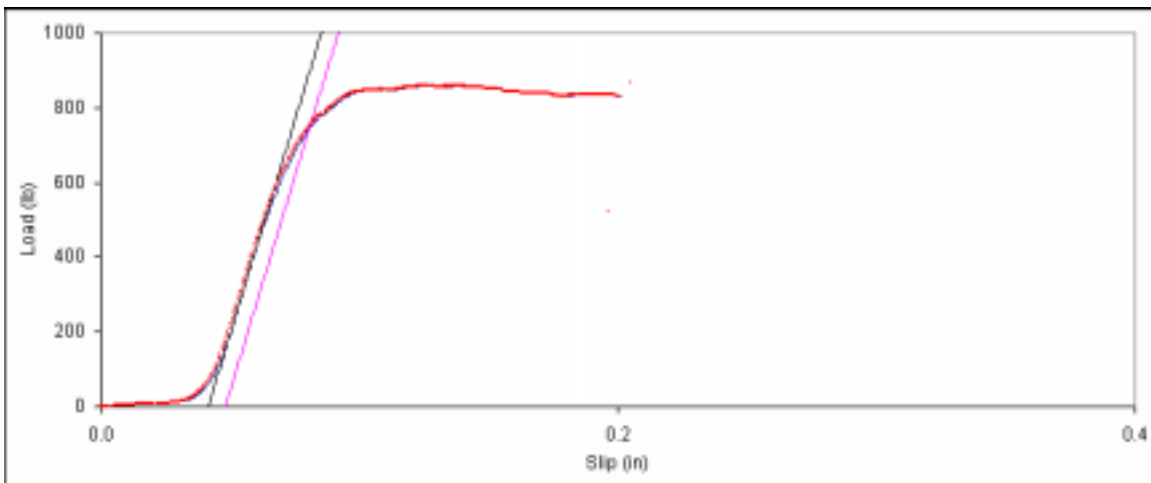


Figure D. 27: Bearing embedment plot for main member sample 8d-7.

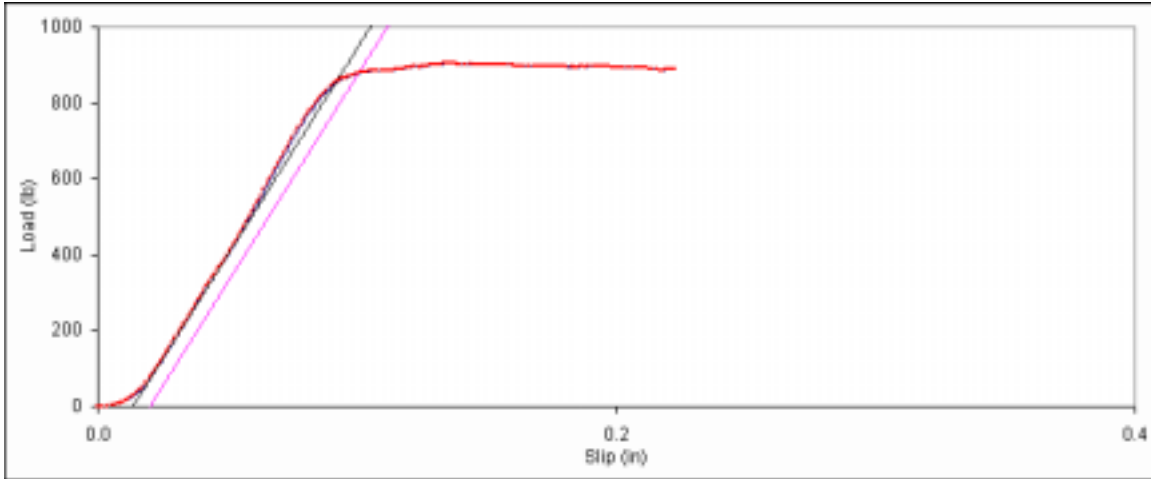


Figure D. 28: Bearing embedment plot for main member sample 8d-8.

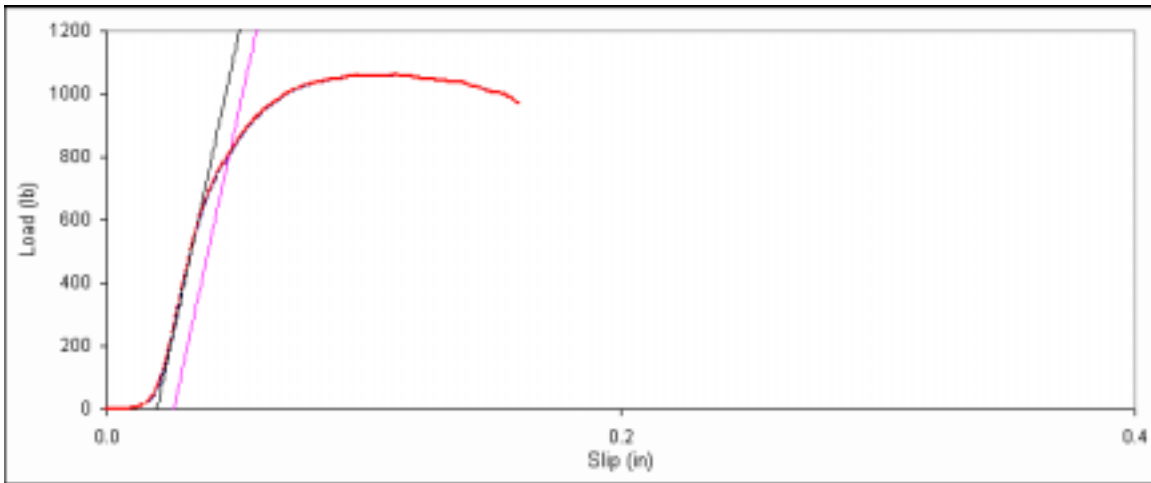


Figure D. 29: Bearing embedment plot for main member sample 8d-9.

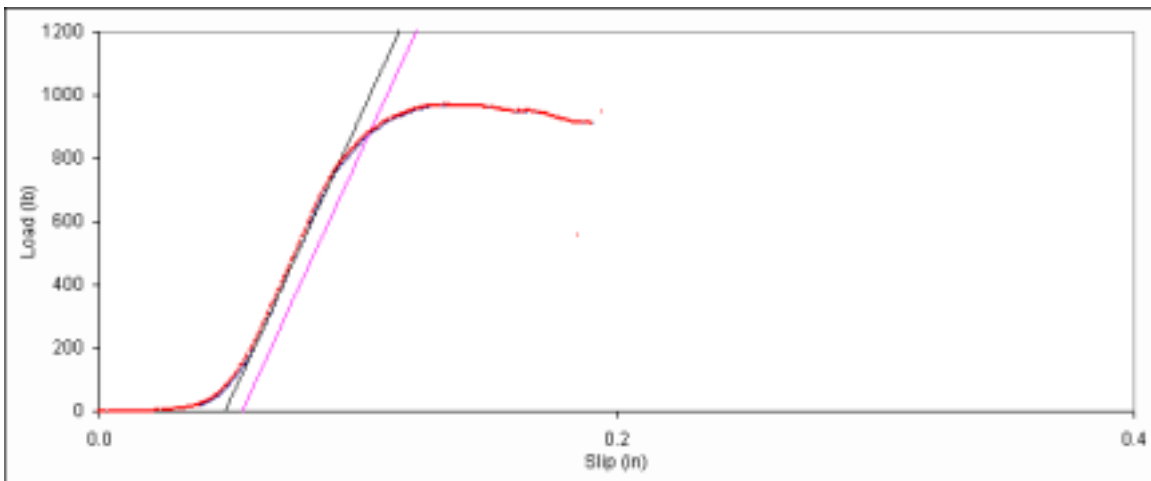


Figure D. 30: Bearing embedment plot for main member sample 8d-10.

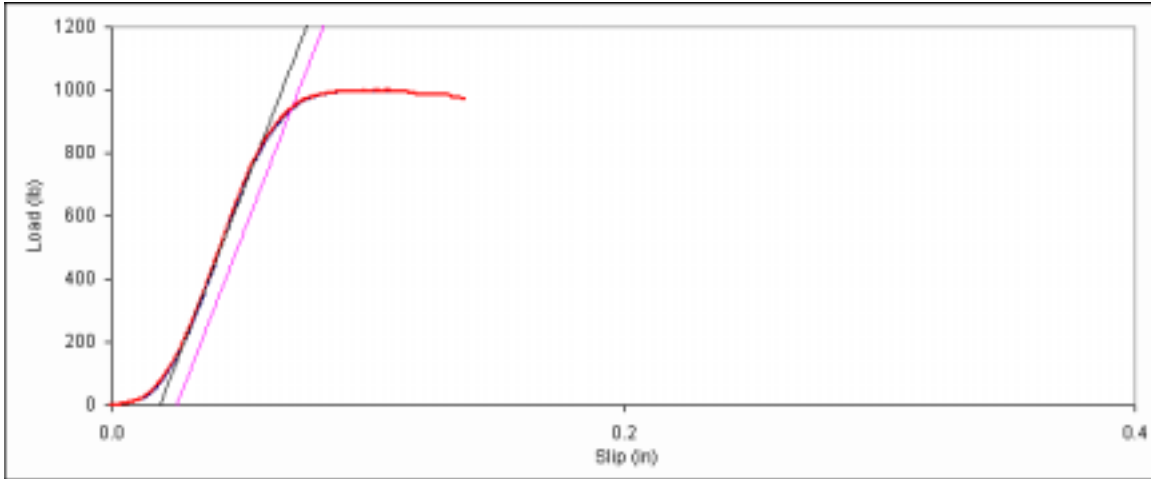


Figure D. 31: Bearing embedment plot for main member sample 8d-11.

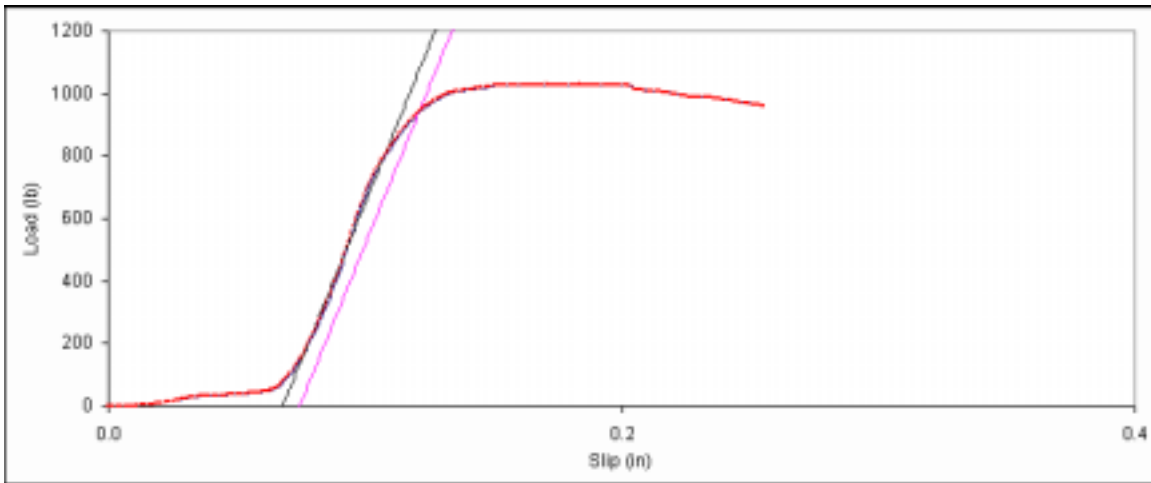


Figure D. 32: Bearing embedment plot for main member sample 8d-12.

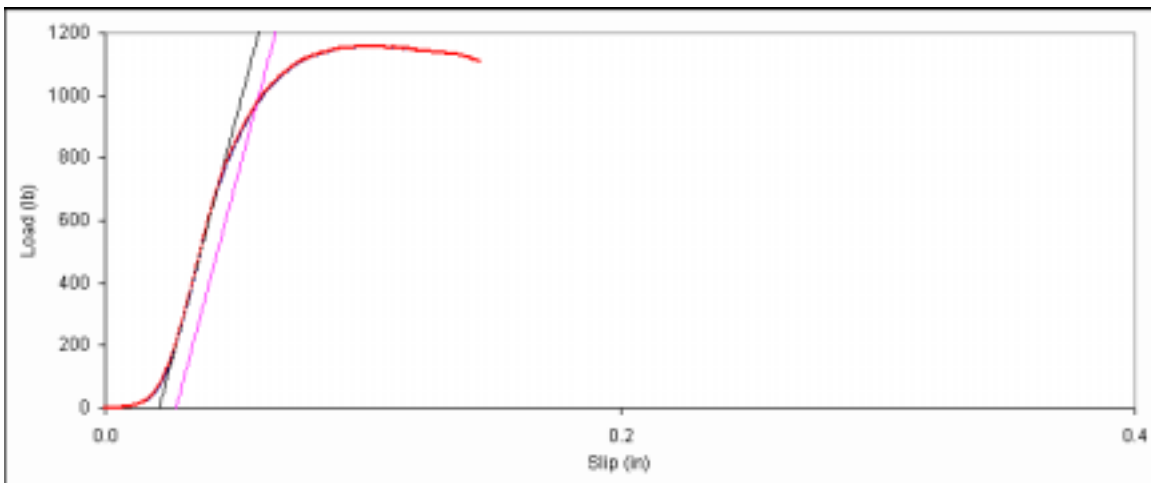


Figure D. 33: Bearing embedment plot for main member sample 8d-13.

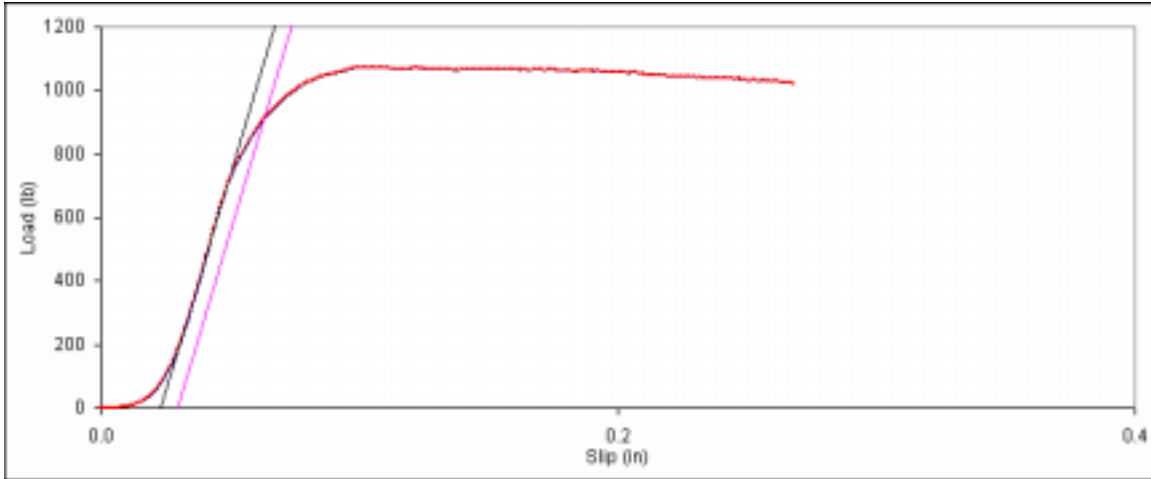


Figure D. 34: Bearing embedment plot for main member sample 8d-14.

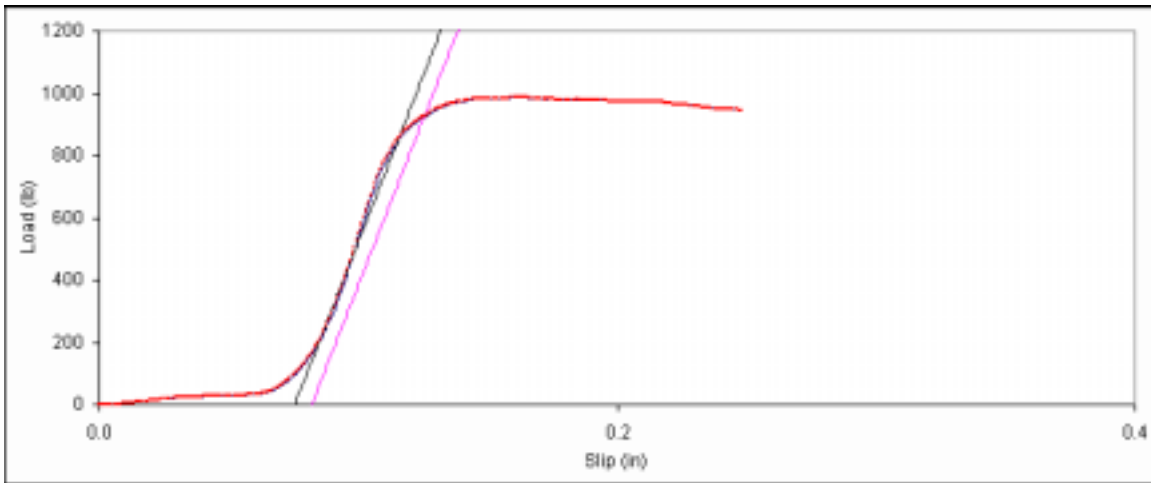


Figure D. 35: Bearing embedment plot for main member sample 8d-15.

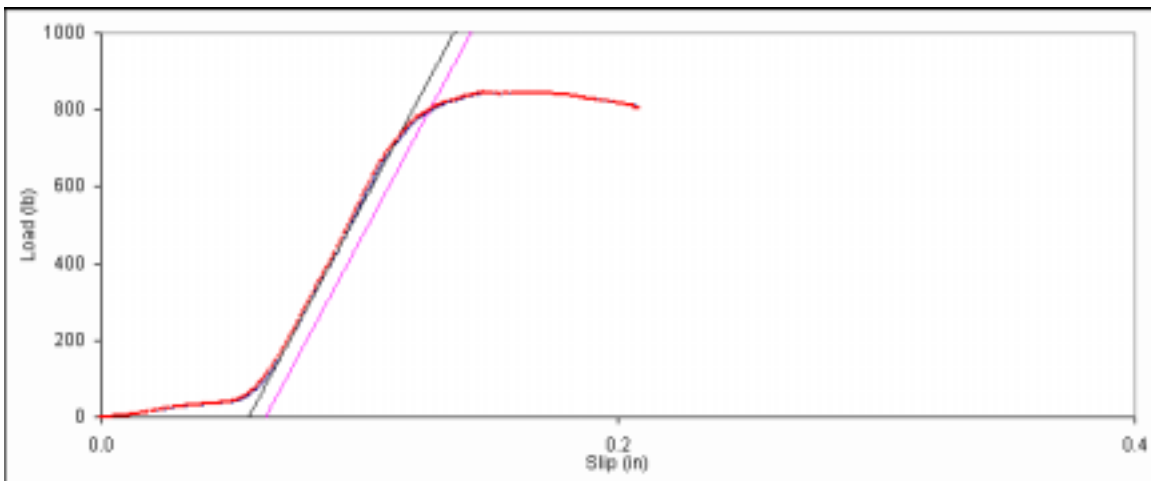


Figure D. 36: Bearing embedment plot for main member sample 8d-16.

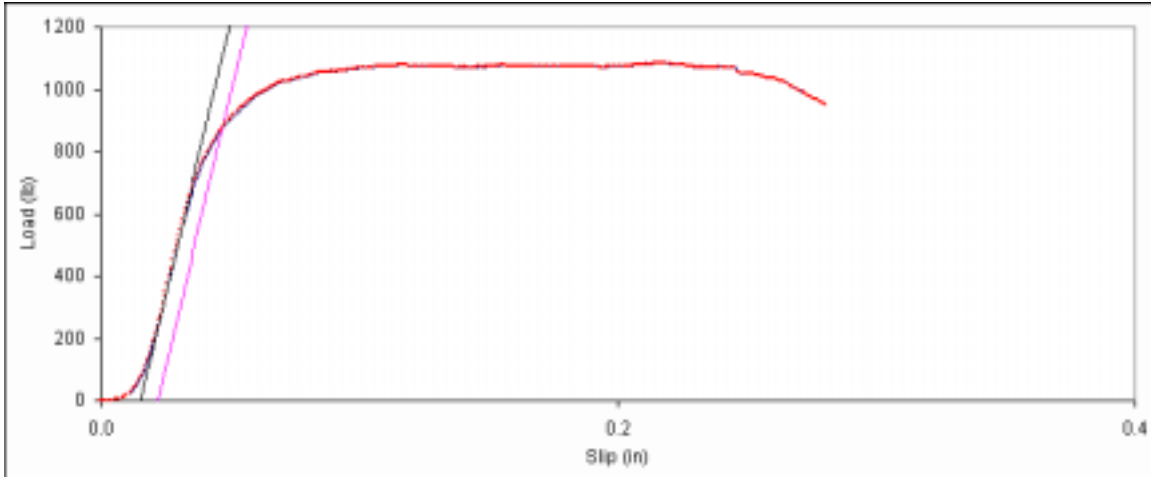


Figure D. 37: Bearing embedment plot for main member sample 8d-17.

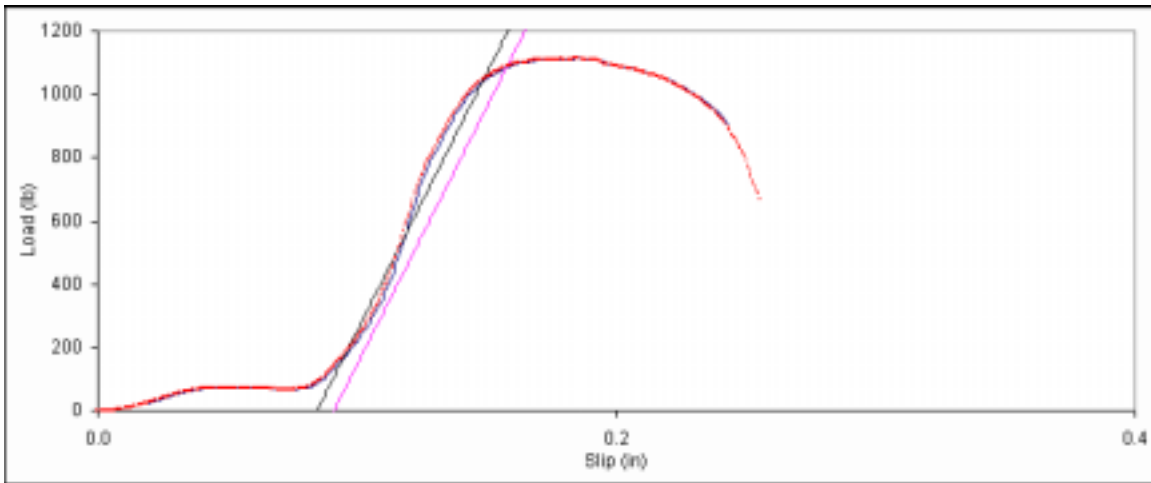


Figure D. 38: Bearing embedment plot for main member sample 8d-18.

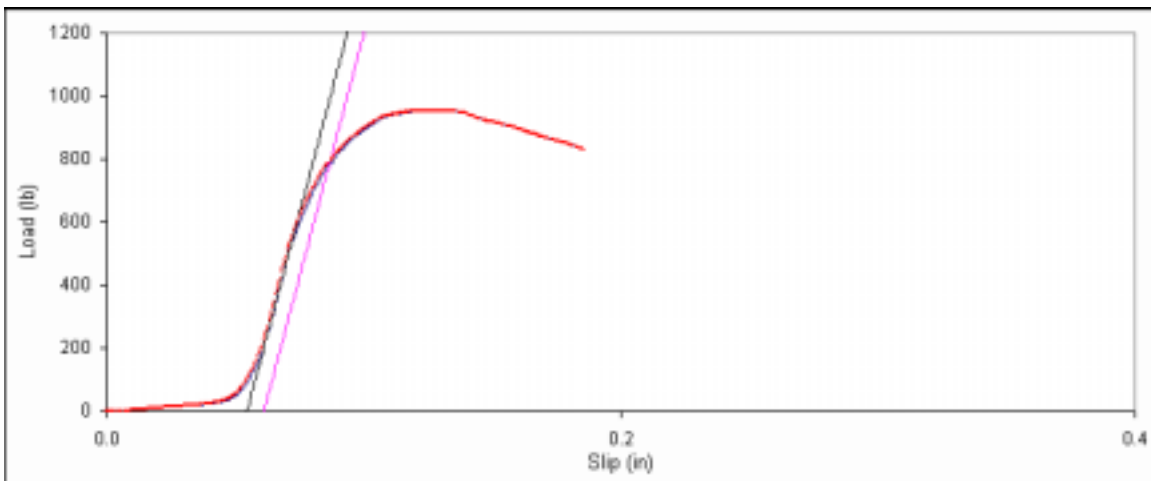


Figure D. 39: Bearing embedment plot for main member sample 8d-19.

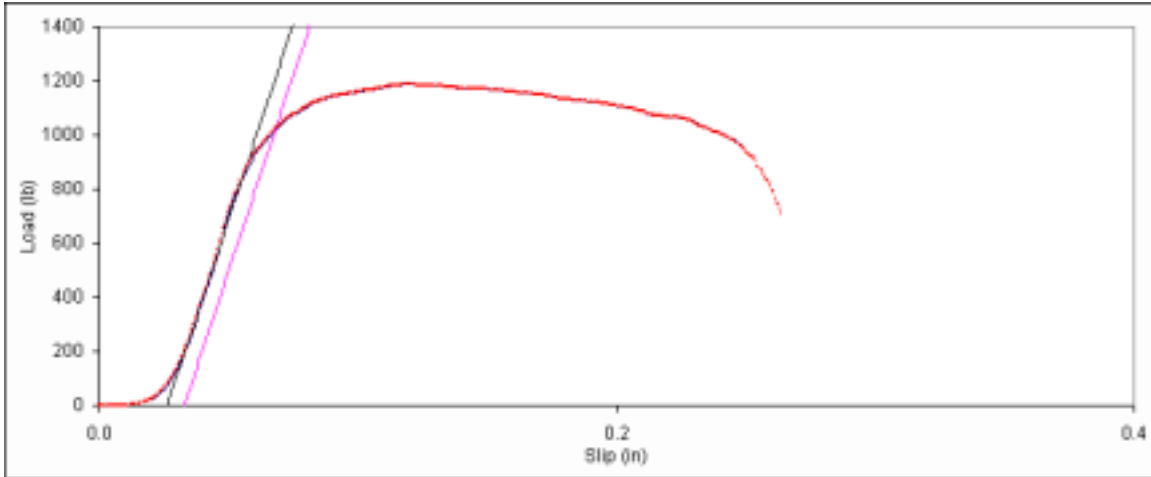


Figure D. 40: Bearing embedment plot for main member sample 8d-20.

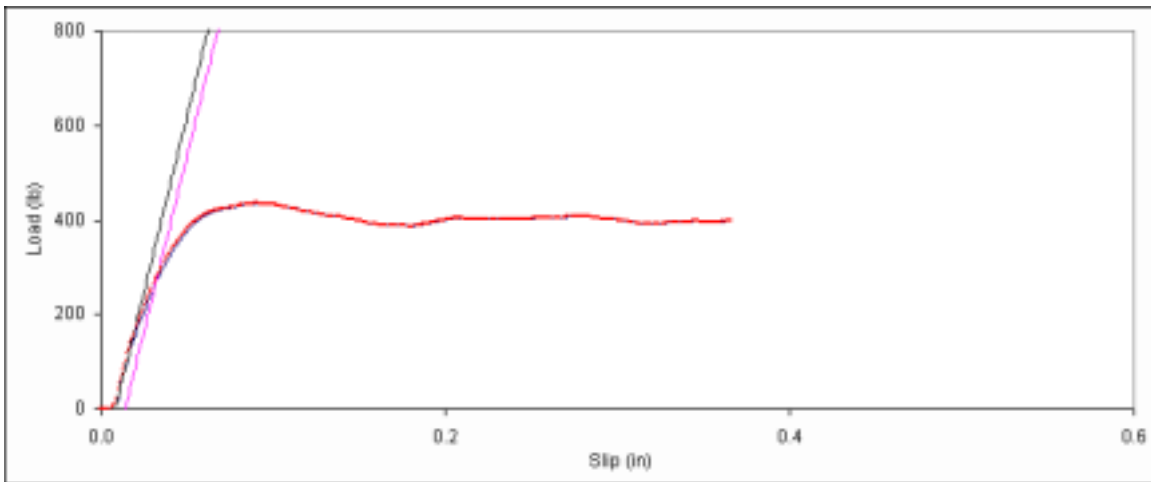


Figure D. 41: Bearing embedment plot for side member sample A-1.

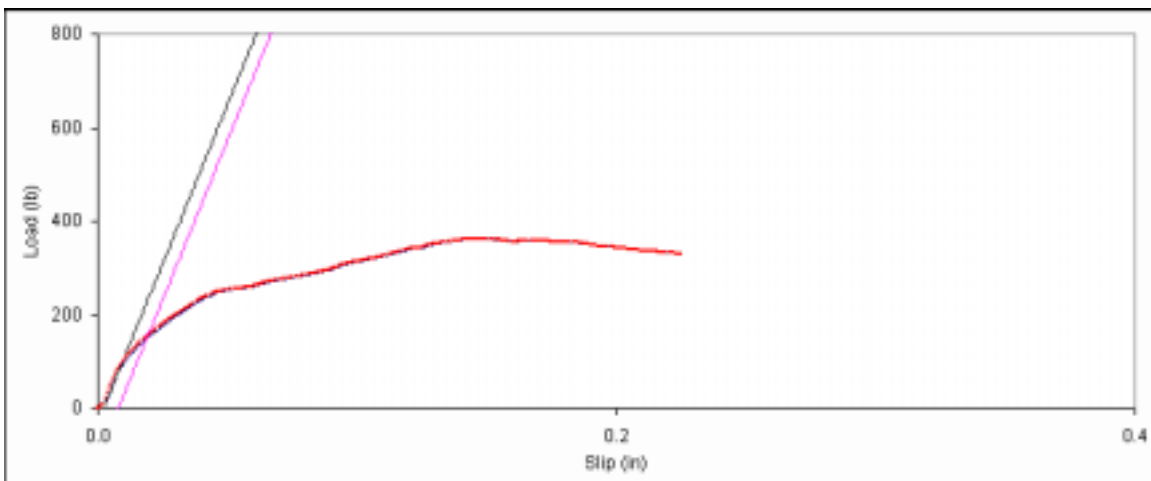


Figure D. 42: Bearing embedment plot for side member sample A-2.

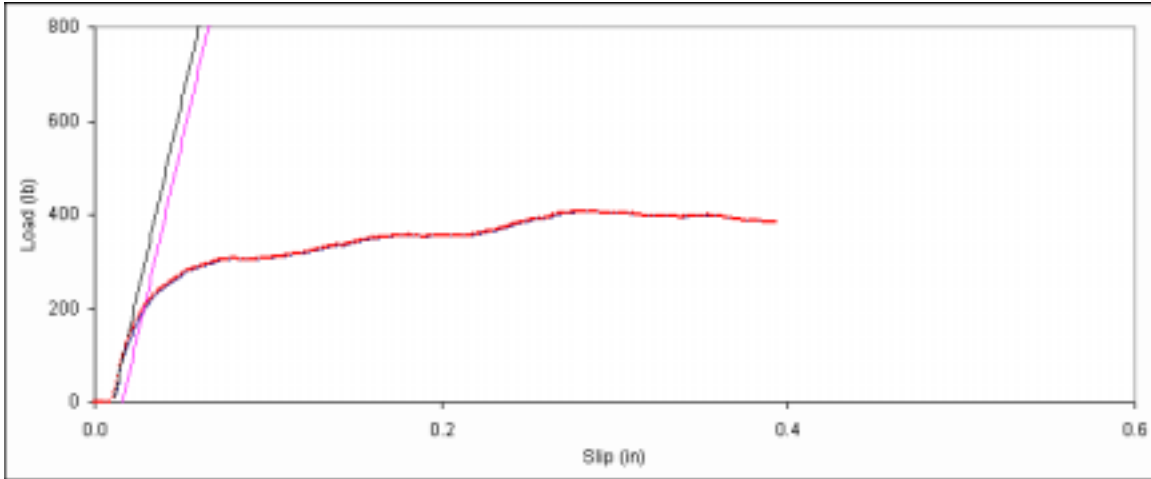


Figure D. 43: Bearing embedment plot for side member sample A-3.

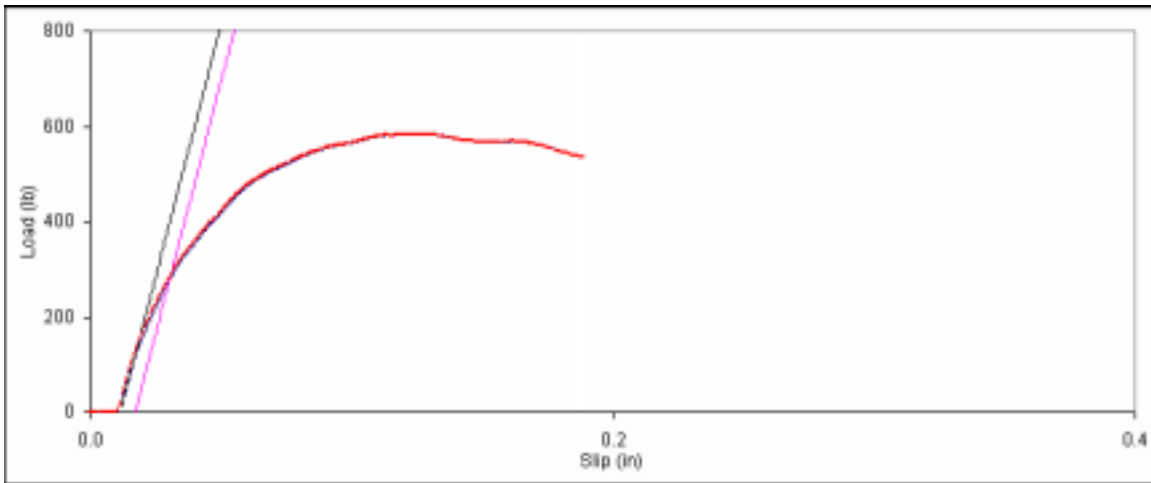


Figure D. 44: Bearing embedment plot for side member sample A-4.

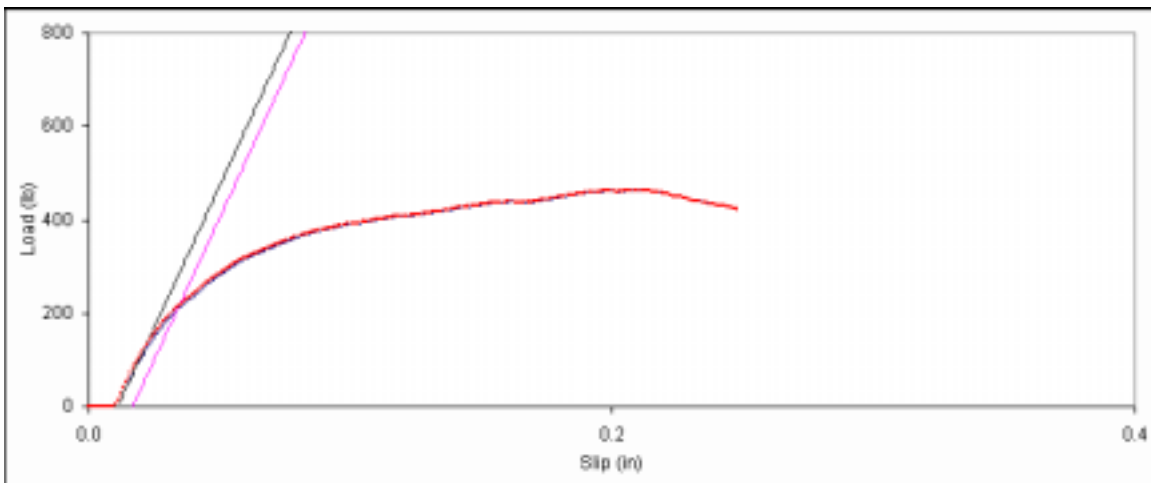


Figure D. 45: Bearing embedment plot for side member sample A-5.

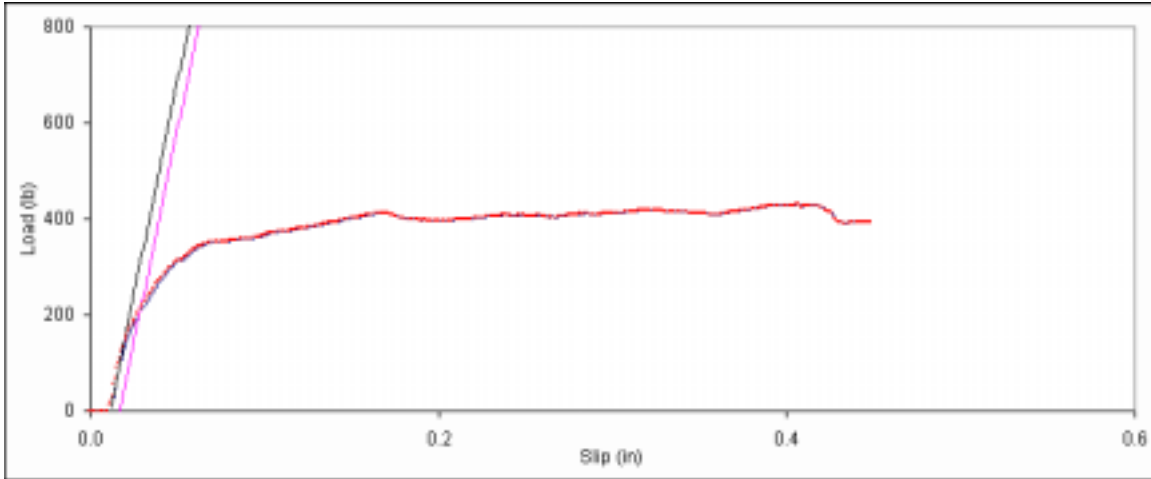


Figure D. 46: Bearing embedment plot for side member sample A-6.

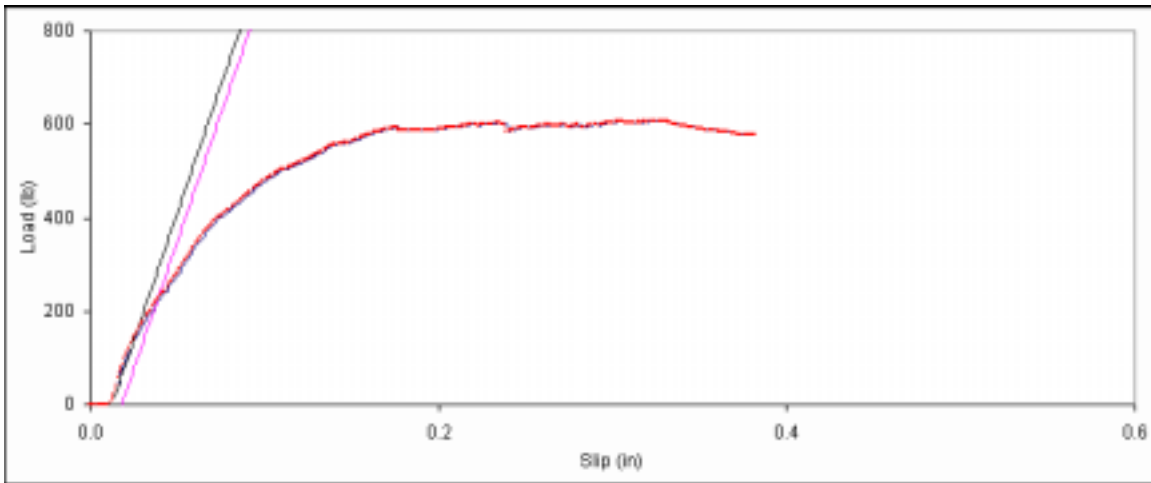


Figure D. 47: Bearing embedment plot for side member sample A-7.

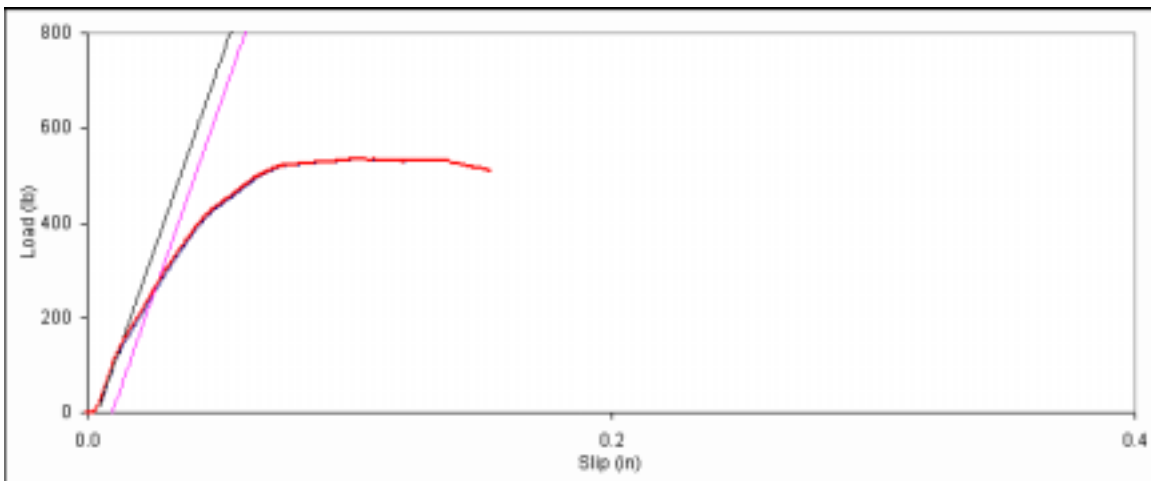


Figure D. 48: Bearing embedment plot for side member sample A-8.

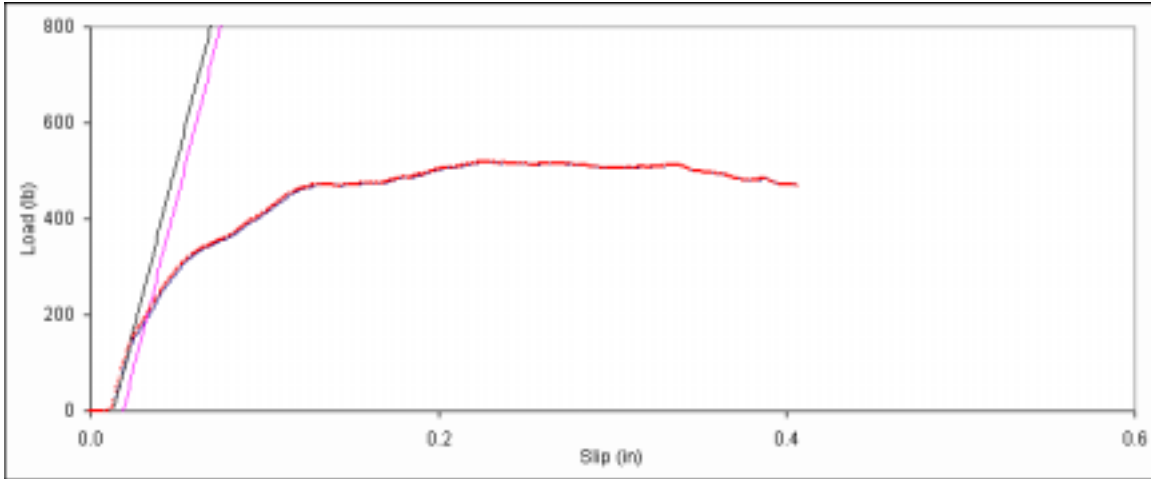


Figure D. 49: Bearing embedment plot for side member sample A-9.

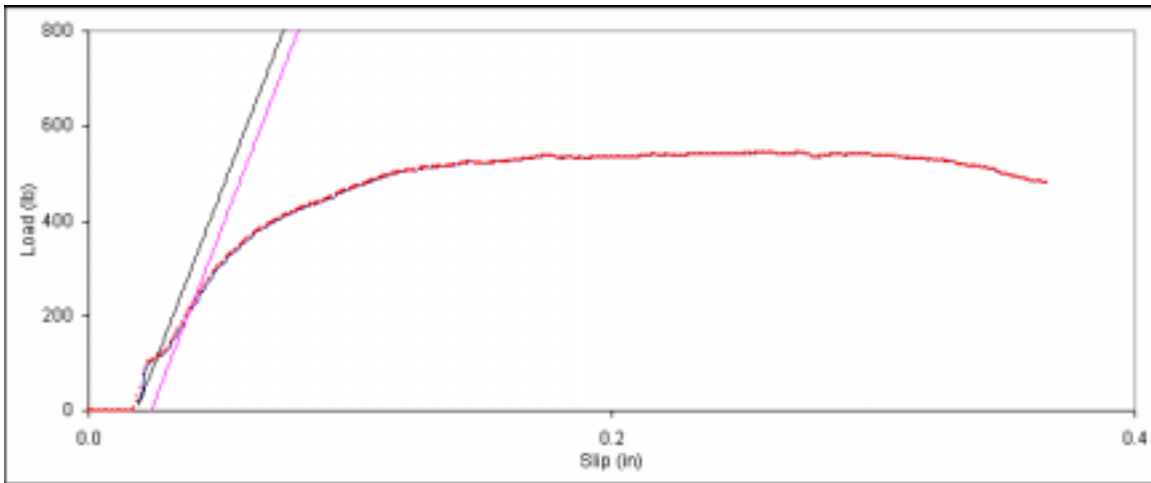


Figure D. 50: Bearing embedment plot for side member sample A-10.

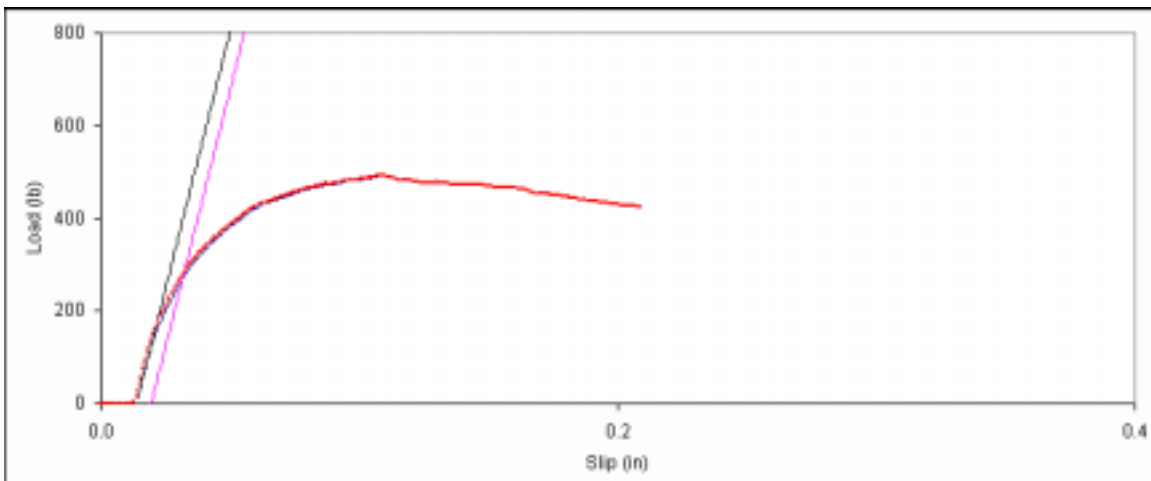


Figure D. 51: Bearing embedment plot for side member sample A-11.

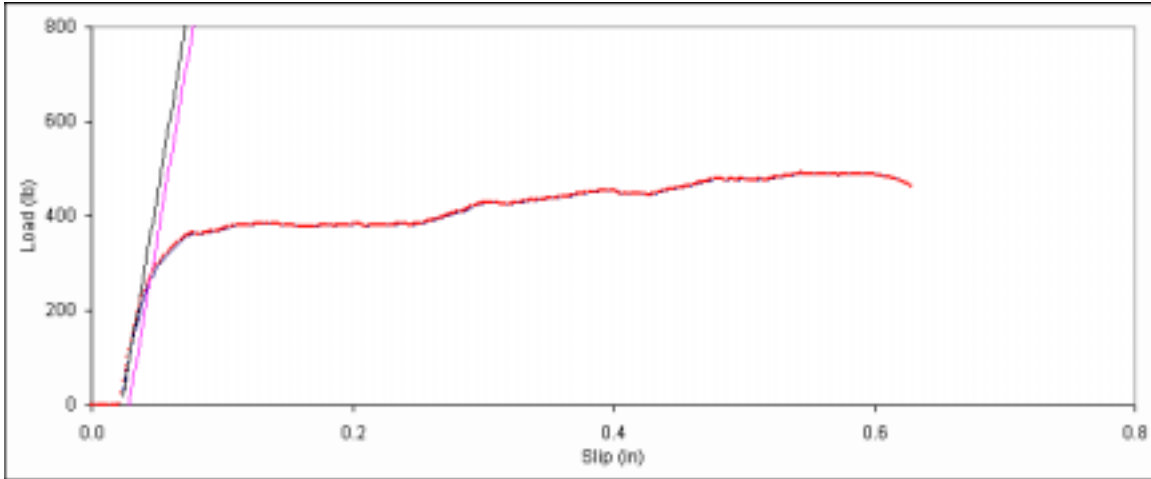


Figure D. 52: Bearing embedment plot for side member sample A-12.

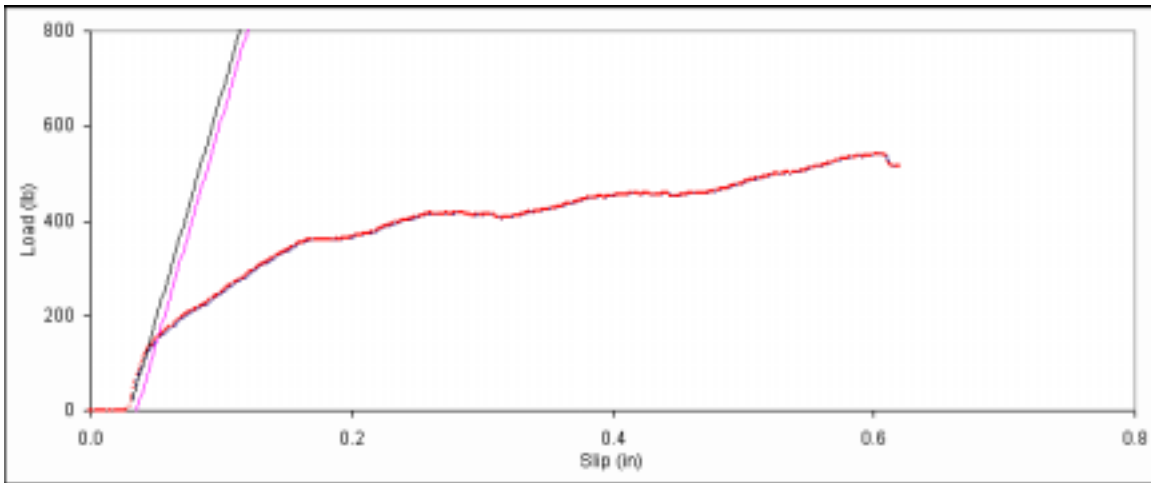


Figure D. 53: Bearing embedment plot for side member sample A-13.

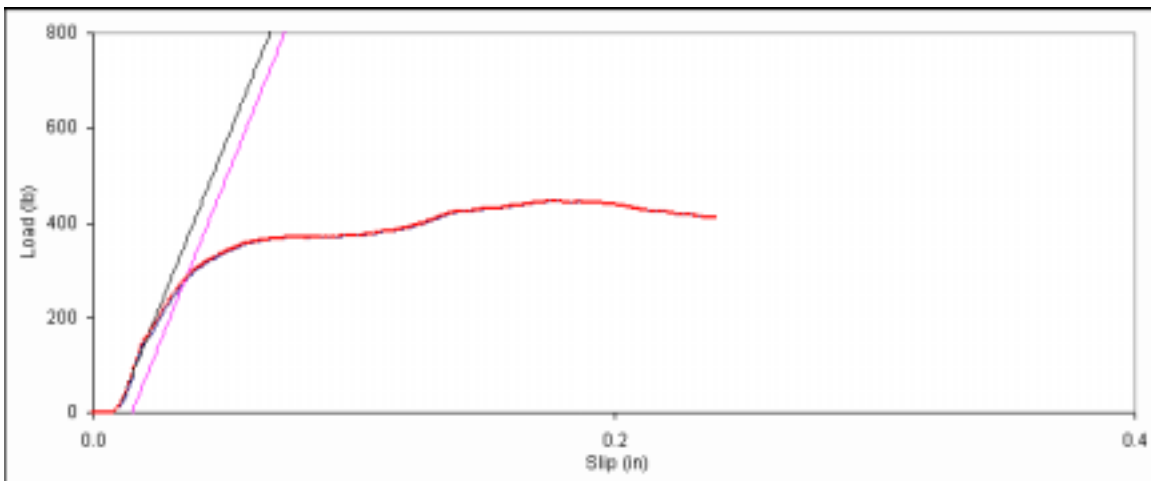


Figure D. 54: Bearing embedment plot for side member sample A-14.

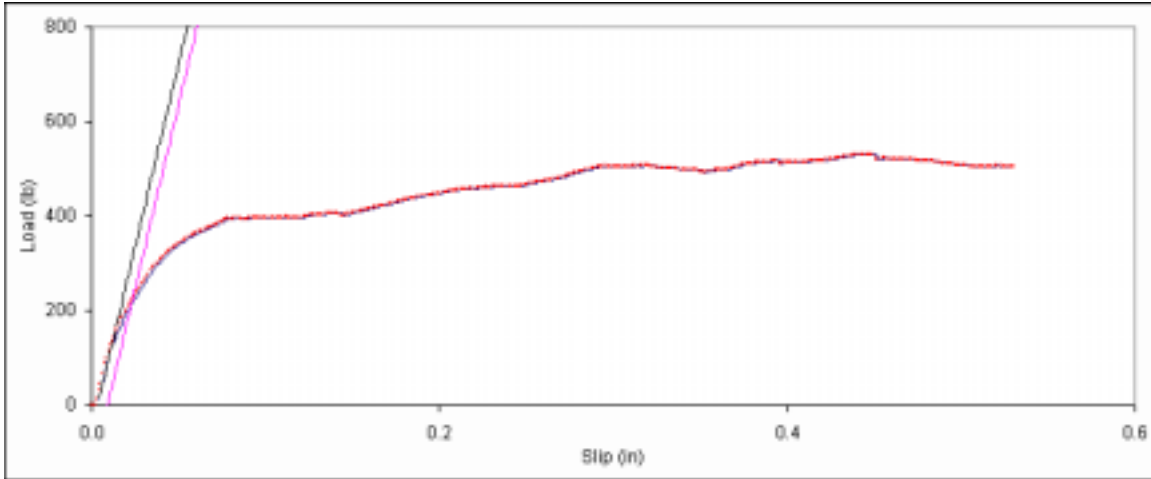


Figure D. 55: Bearing embedment plot for side member sample A-15.

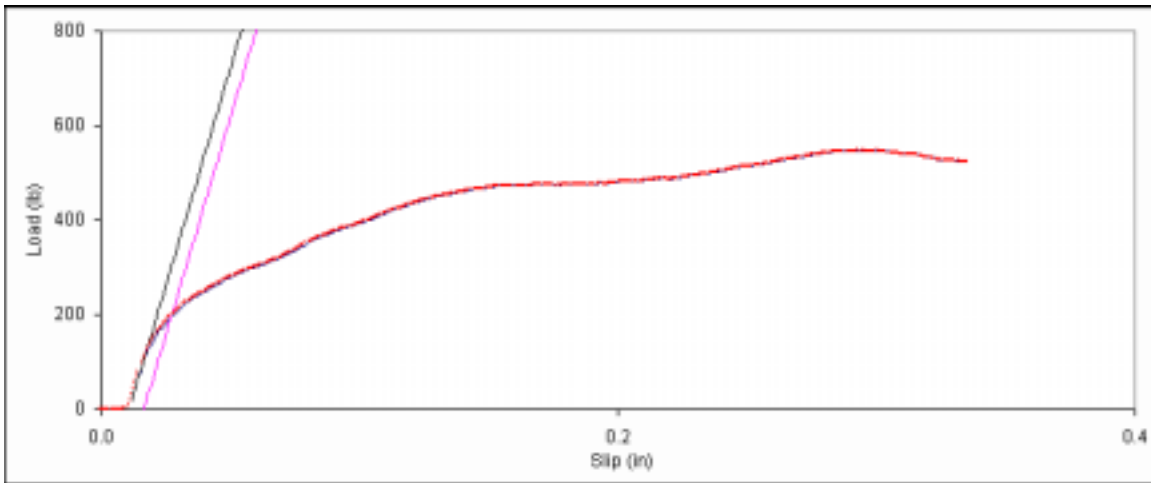


Figure D. 56: Bearing embedment plot for side member sample A-16.

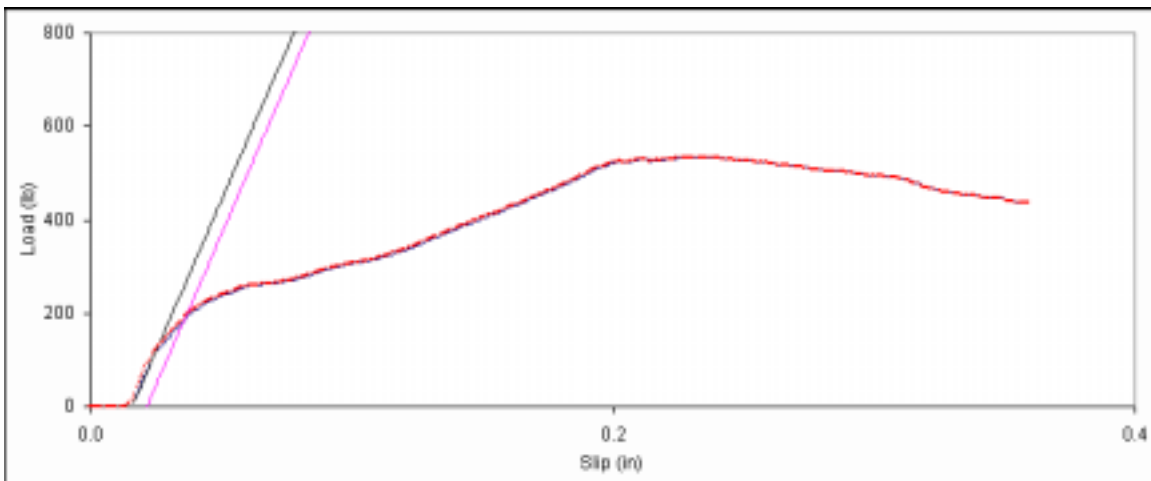


Figure D. 57: Bearing embedment plot for side member sample A-17.

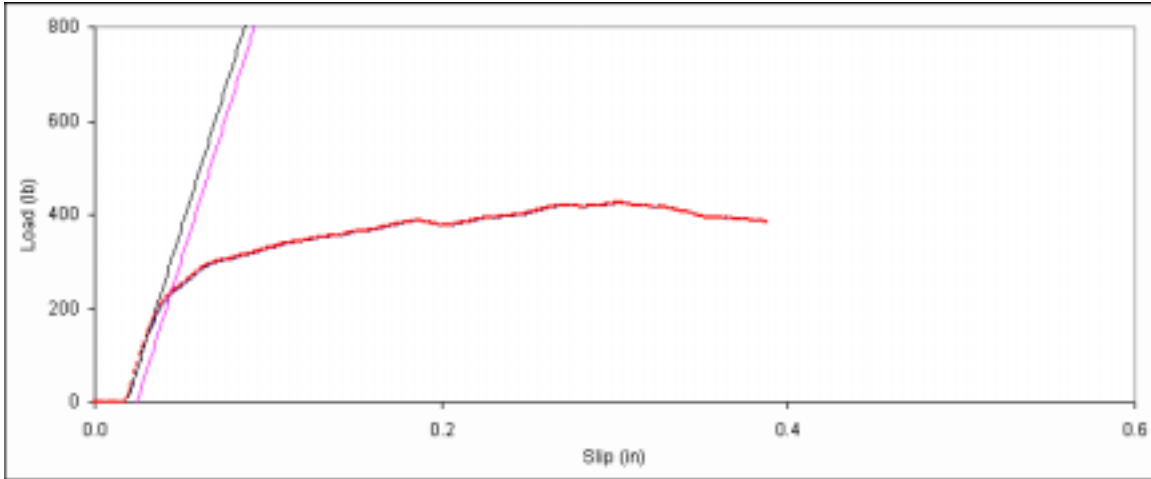


Figure D. 58: Bearing embedment plot for side member sample A-18.

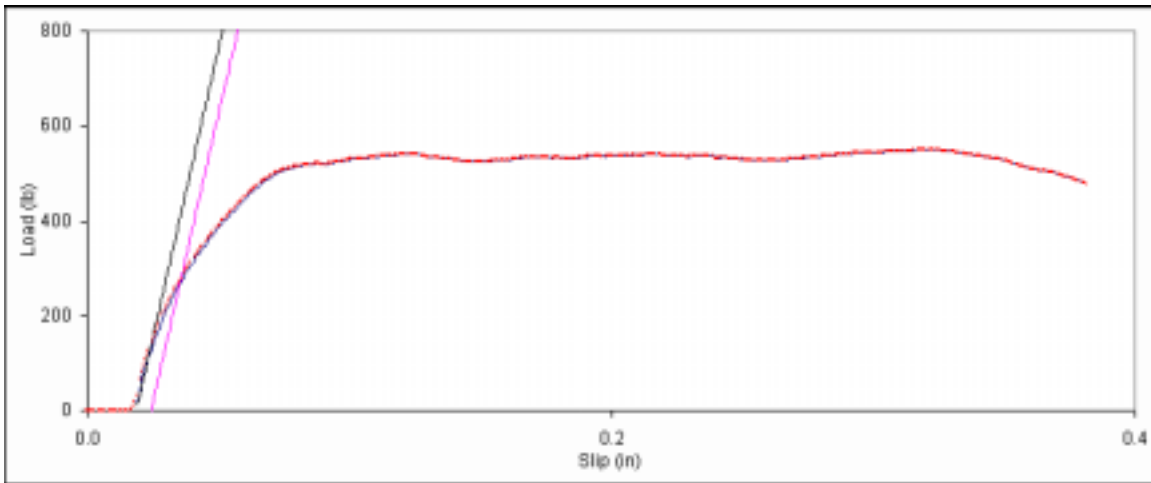


Figure D. 59: Bearing embedment plot for side member sample A-19.

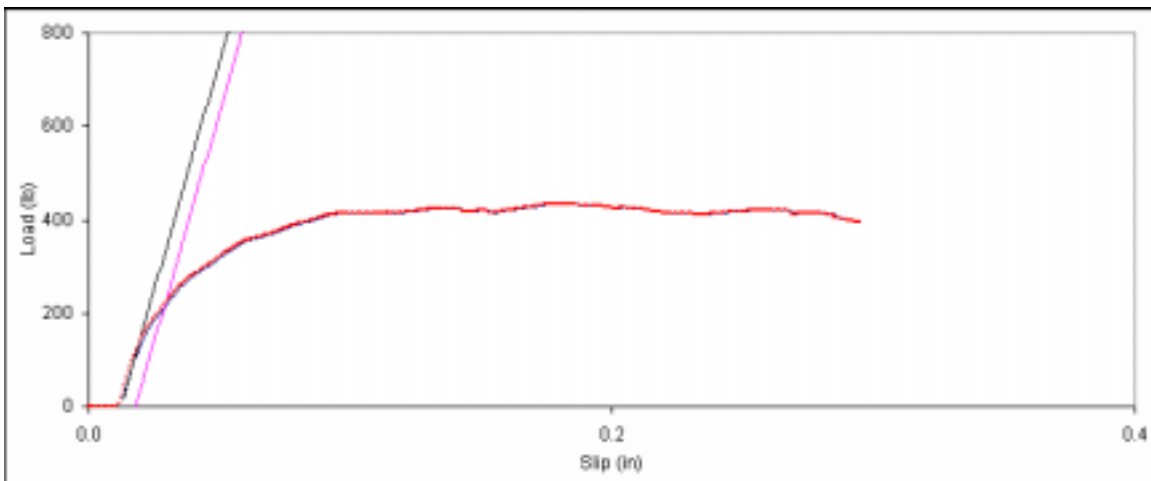


Figure D. 60: Bearing embedment plot for side member sample A-20.

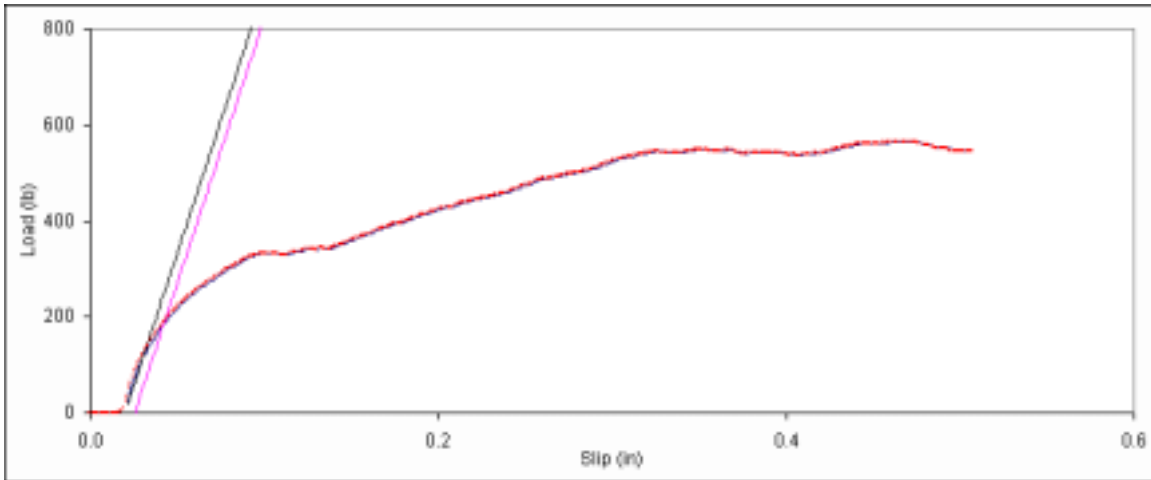


Figure D. 61: Bearing embedment plot for side member sample B-1.

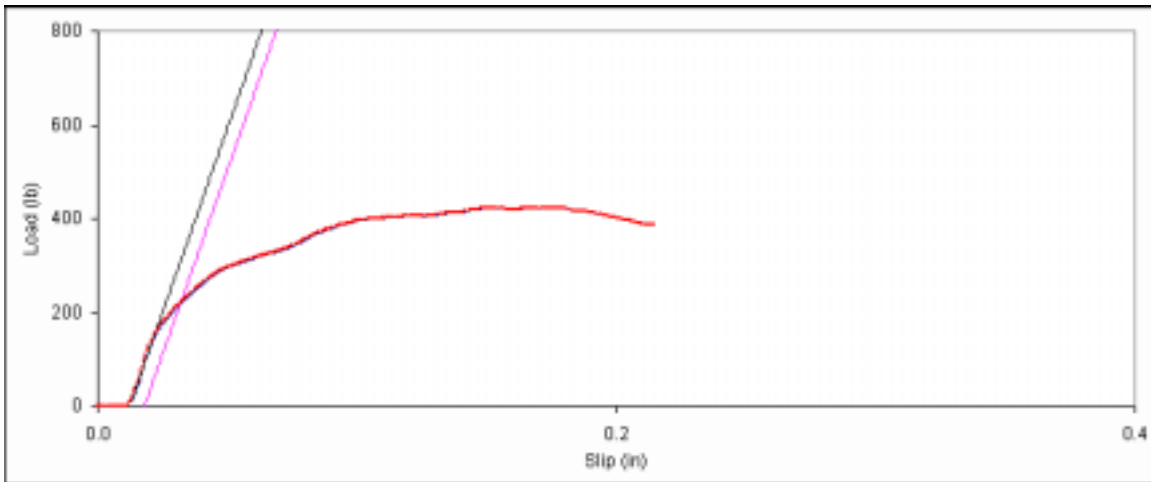


Figure D. 62: Bearing embedment plot for side member sample B-2.

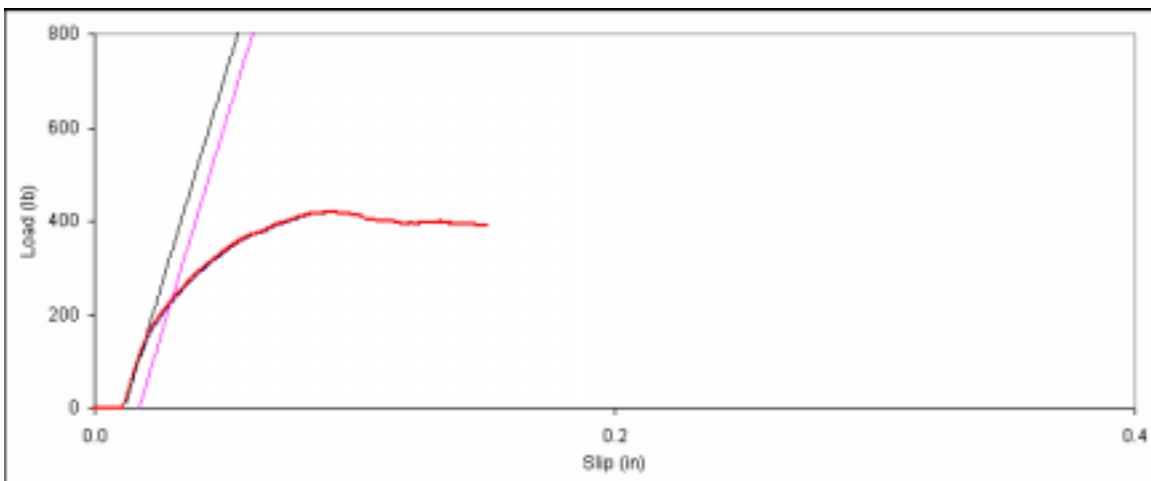


Figure D. 63: Bearing embedment plot for side member sample B-3.

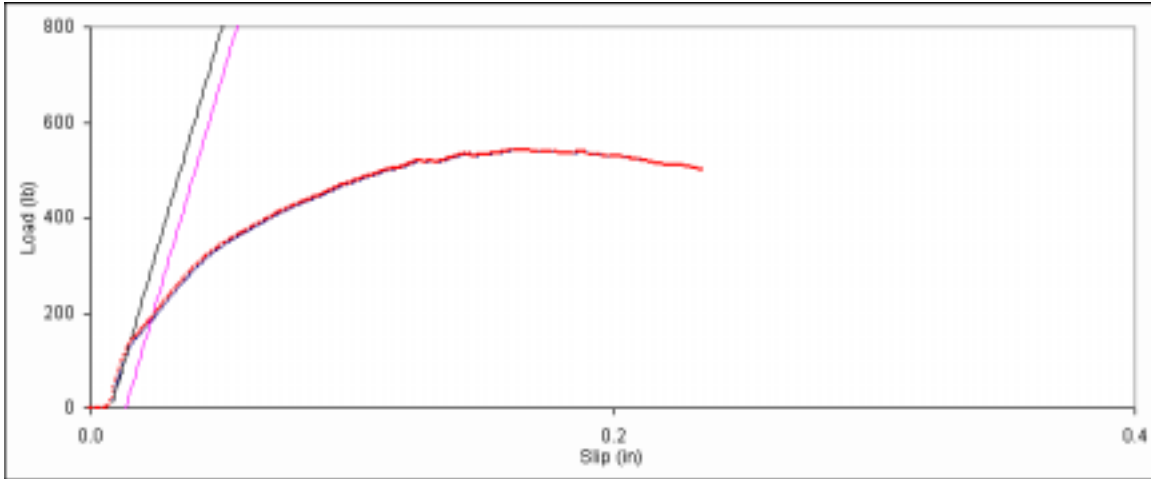


Figure D. 64: Bearing embedment plot for side member sample B-4.

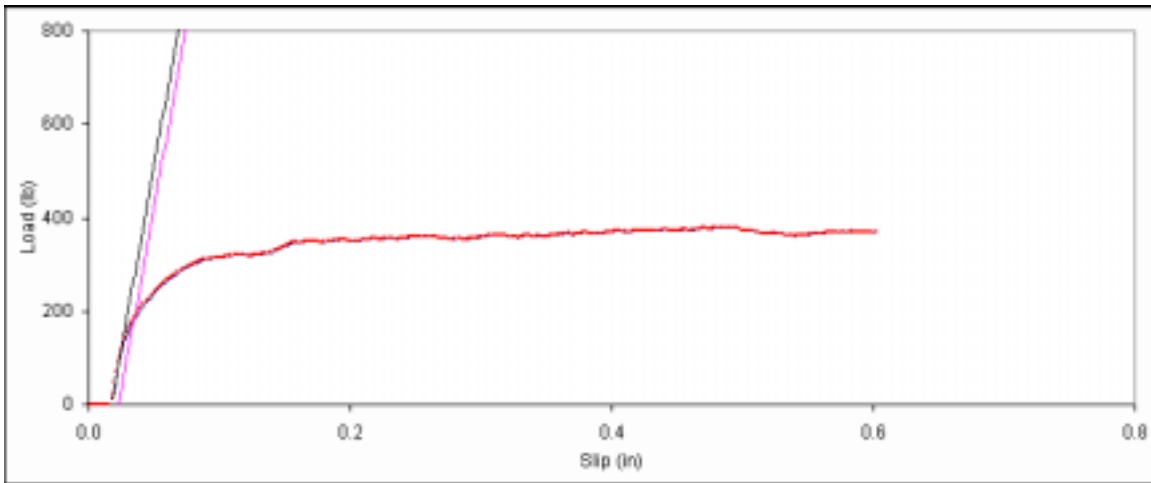


Figure D. 65: Bearing embedment plot for side member sample B-5.

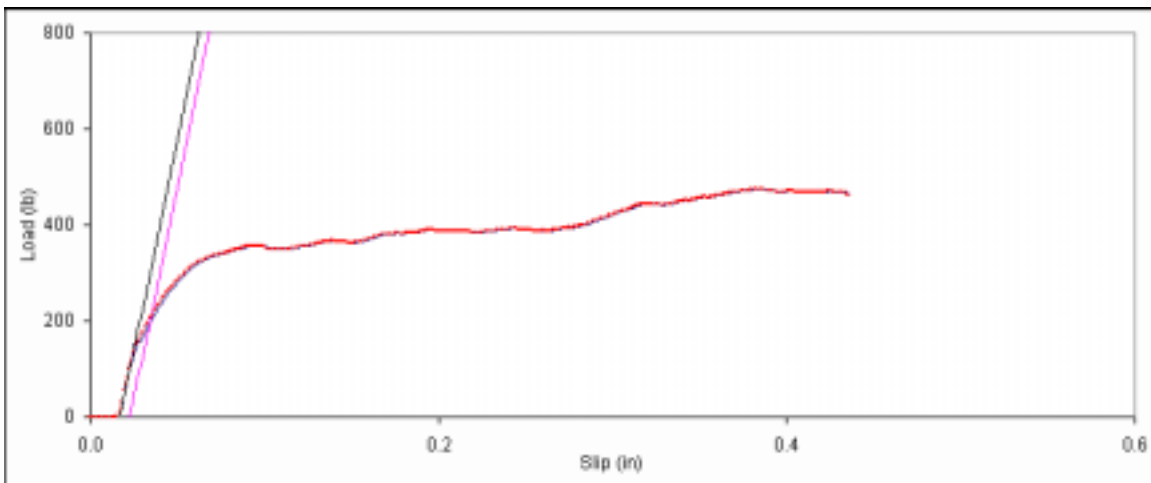


Figure D. 66: Bearing embedment plot for side member sample B-6.

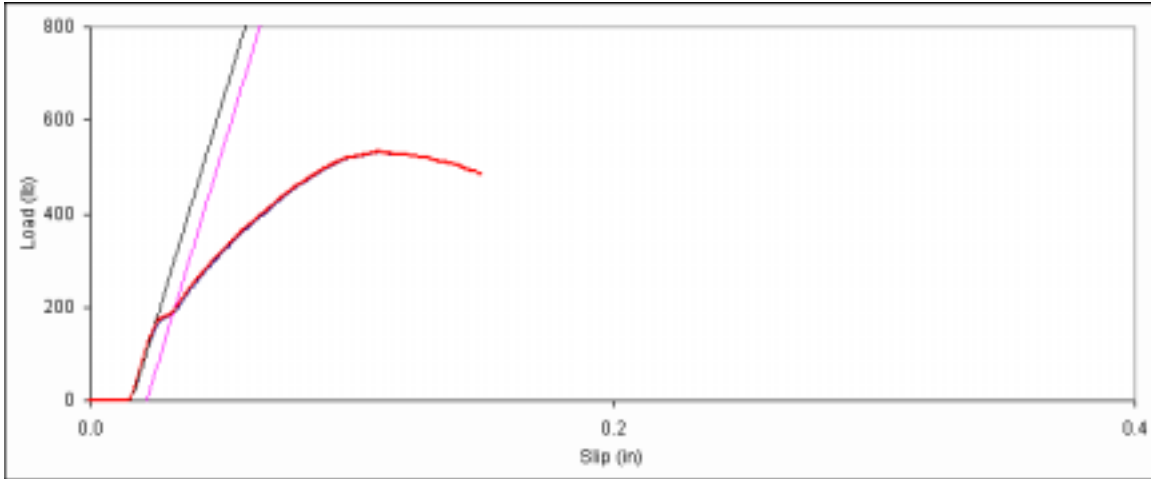


Figure D. 67: Bearing embedment plot for side member sample B-7.

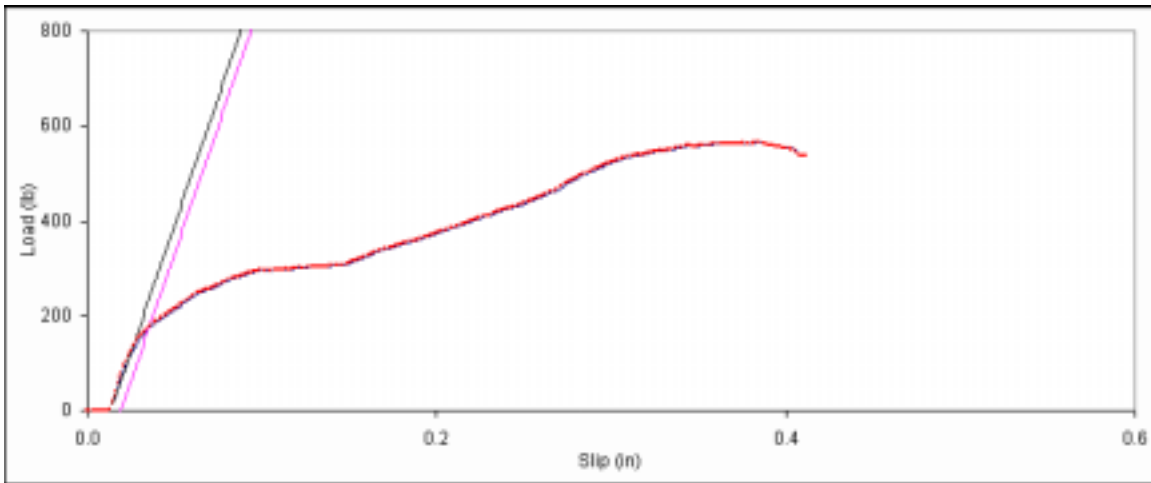


Figure D. 68: Bearing embedment plot for side member sample B-8.

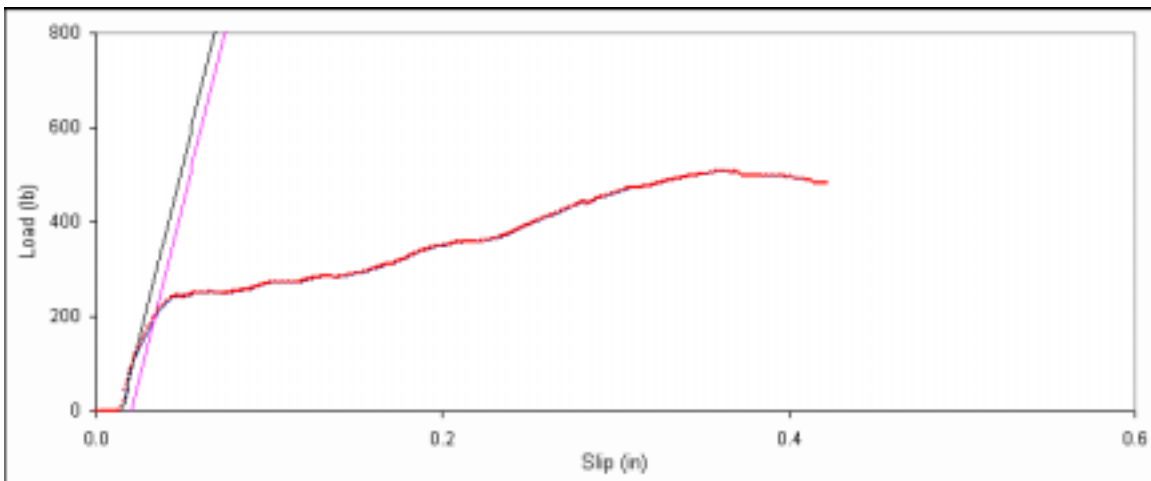


Figure D. 69: Bearing embedment plot for side member sample B-9.

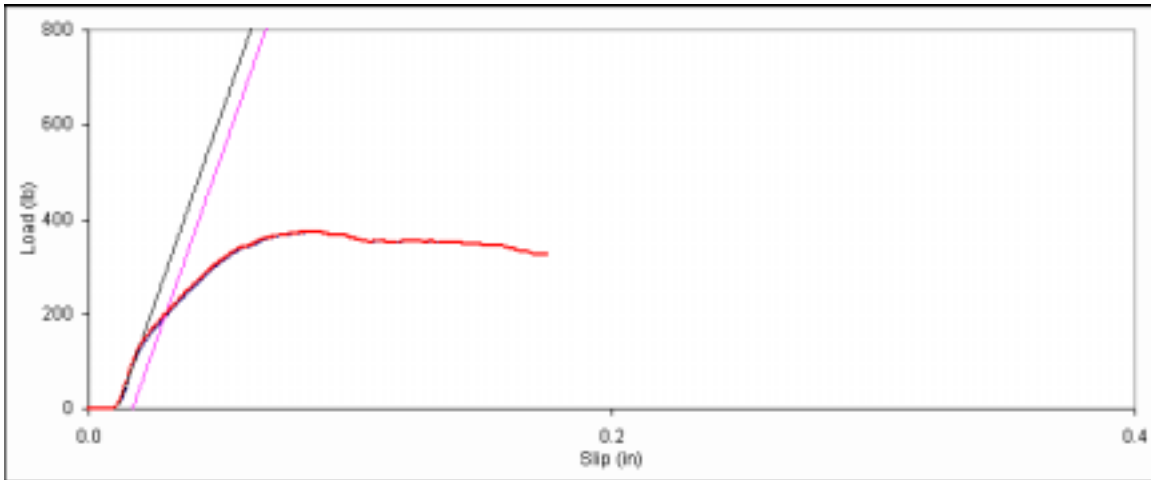


Figure D. 70: Bearing embedment plot for side member sample B-10.

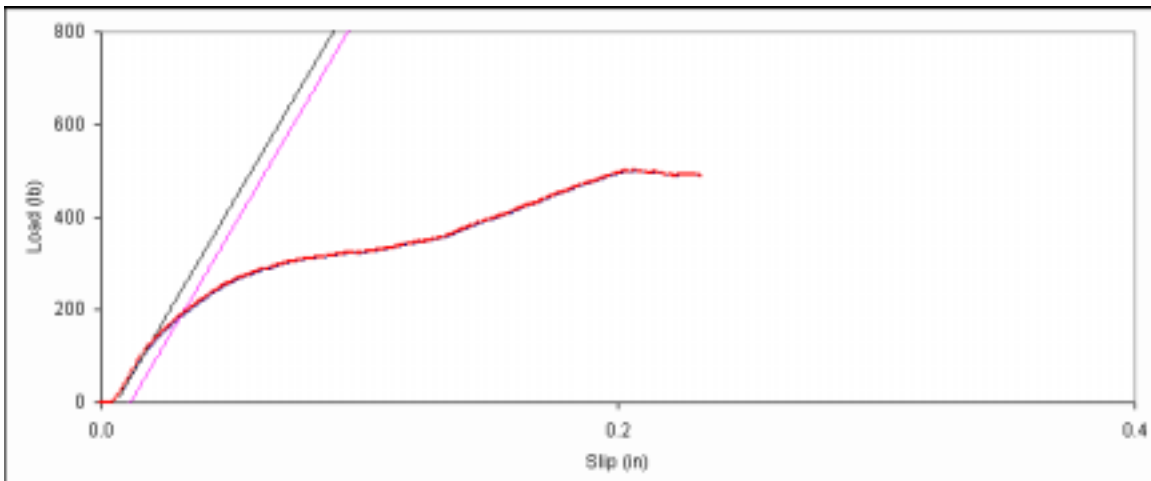


Figure D. 71: Bearing embedment plot for side member sample B-11.

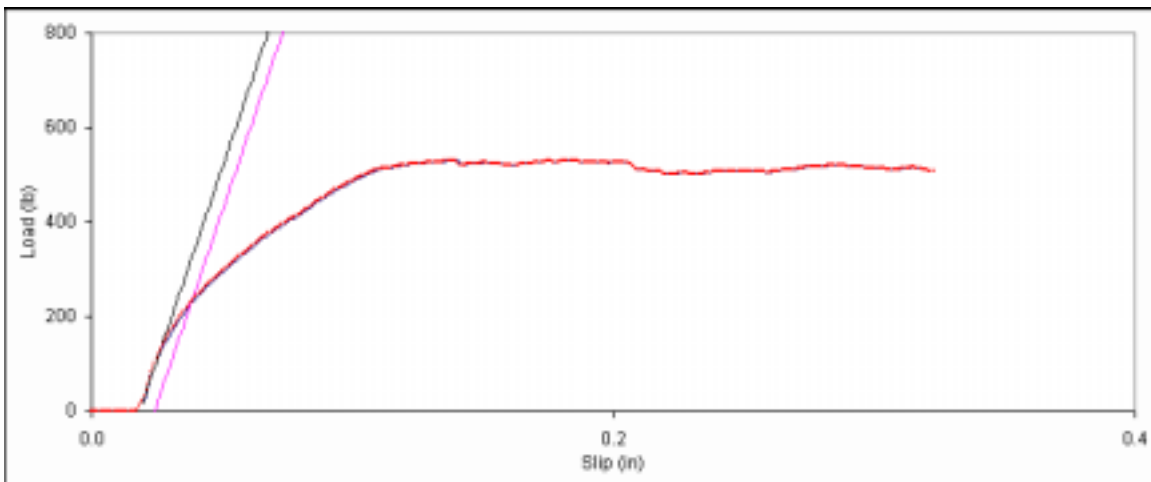


Figure D. 72: Bearing embedment plot for side member sample B-12.

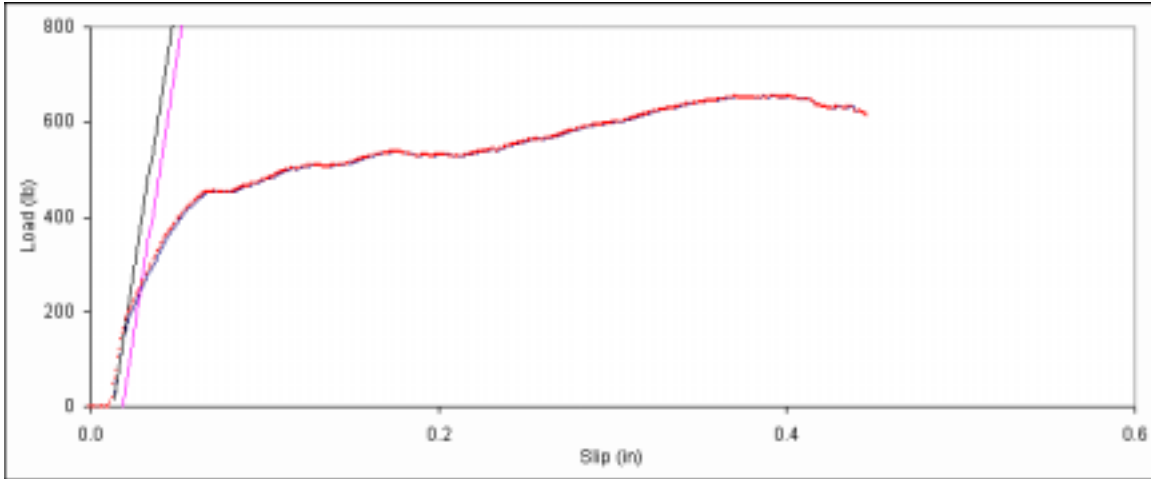


Figure D. 73: Bearing embedment plot for side member sample B-13.

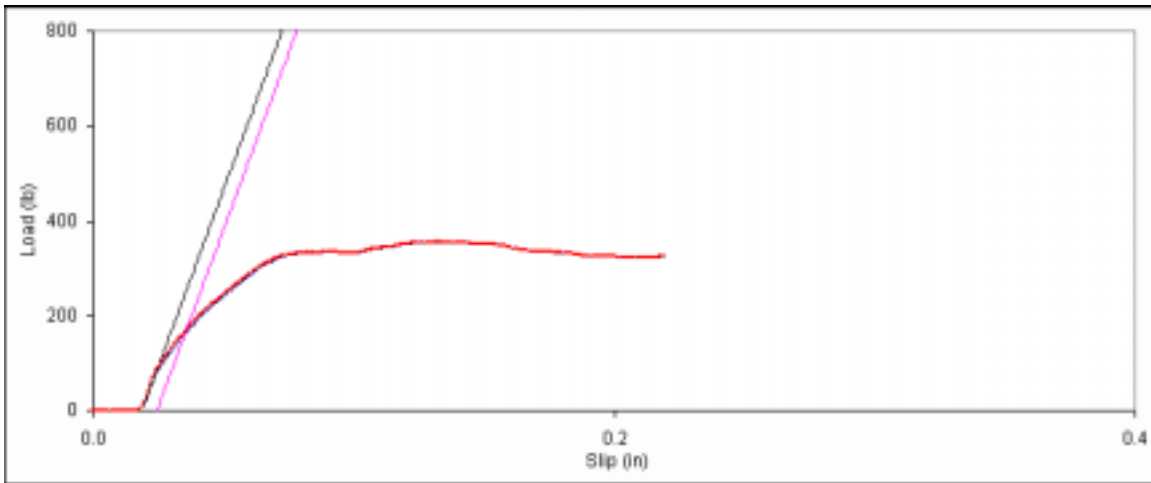


Figure D. 74: Bearing embedment plot for side member sample B-14.

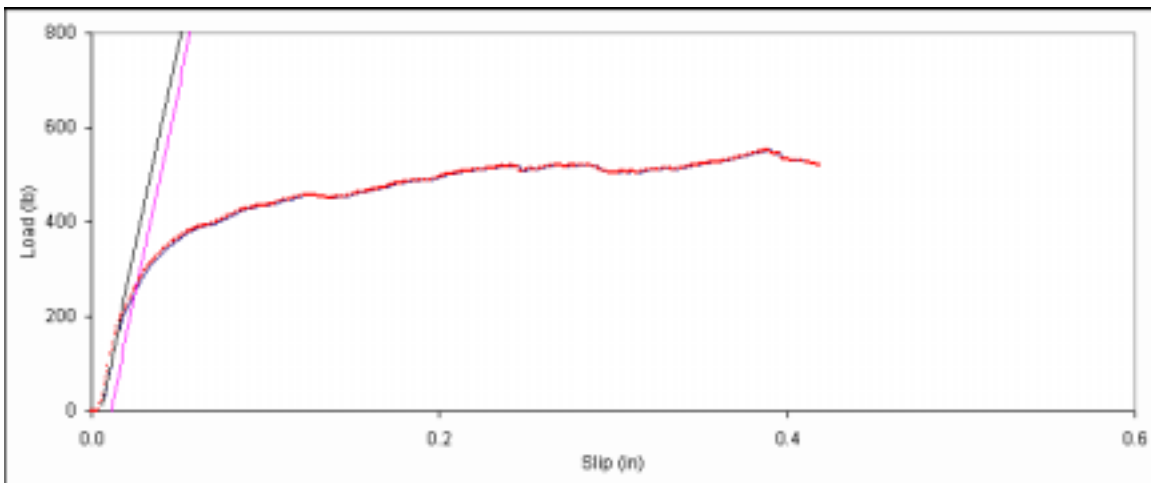


Figure D. 75: Bearing embedment plot for side member sample B-15.

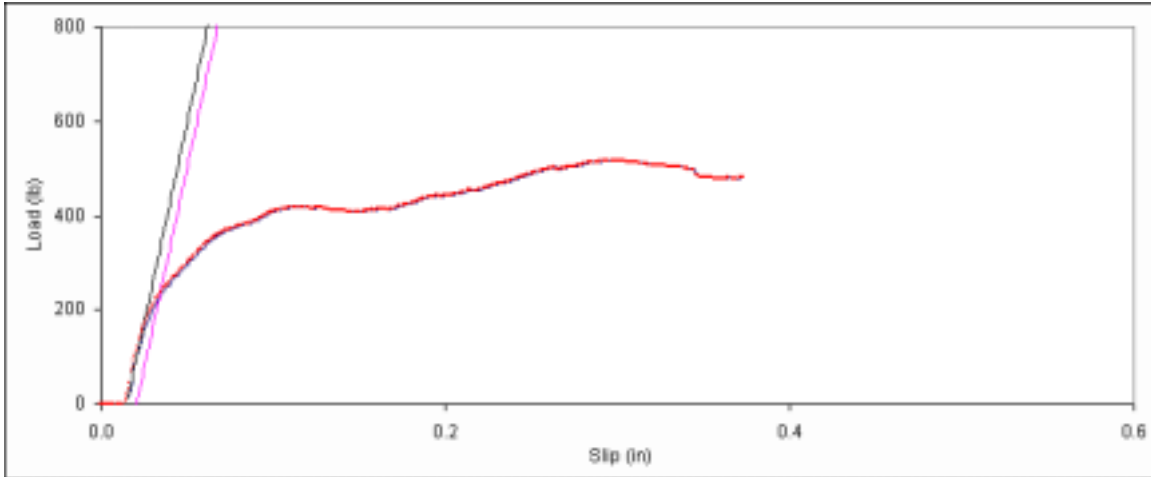


Figure D. 76: Bearing embedment plot for side member sample B-16.

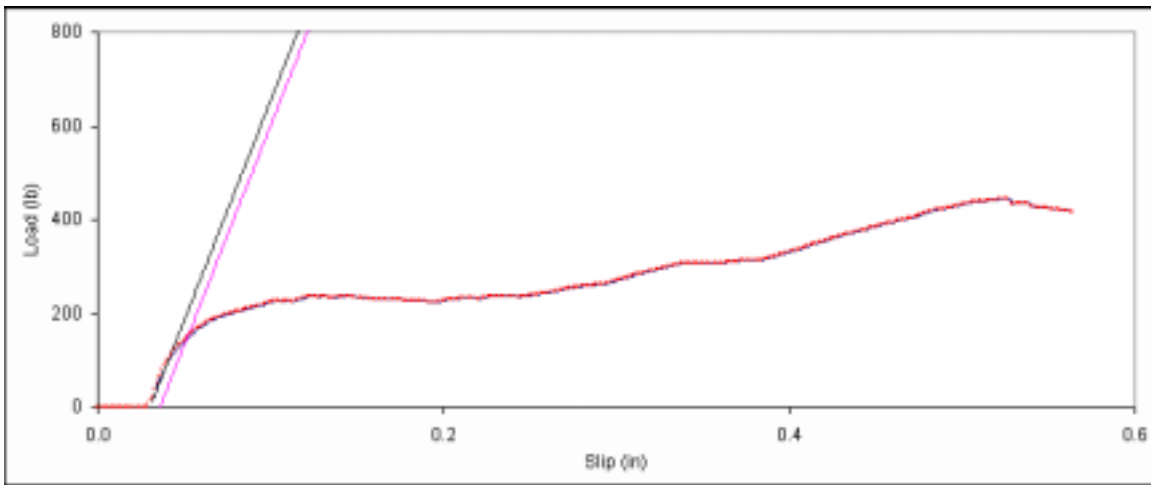


Figure D. 77: Bearing embedment plot for side member sample B-17.

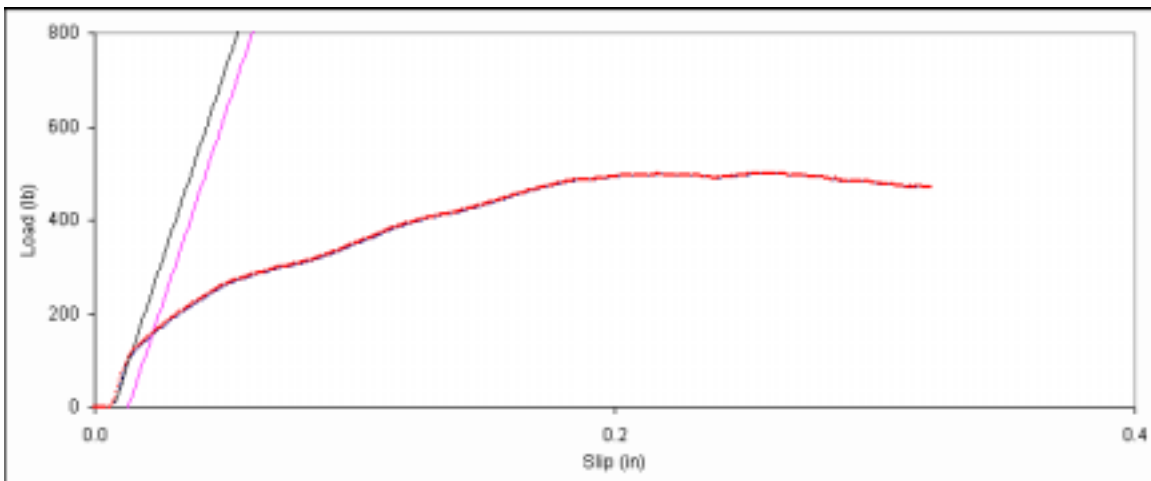


Figure D. 78: Bearing embedment plot for side member sample B-18.

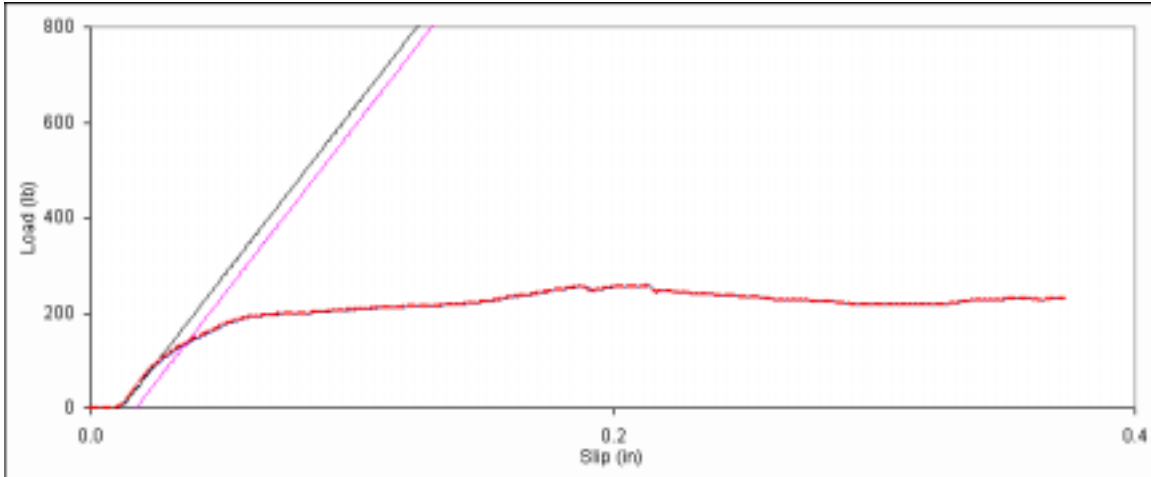


Figure D. 79: Bearing embedment plot for side member sample B-19.

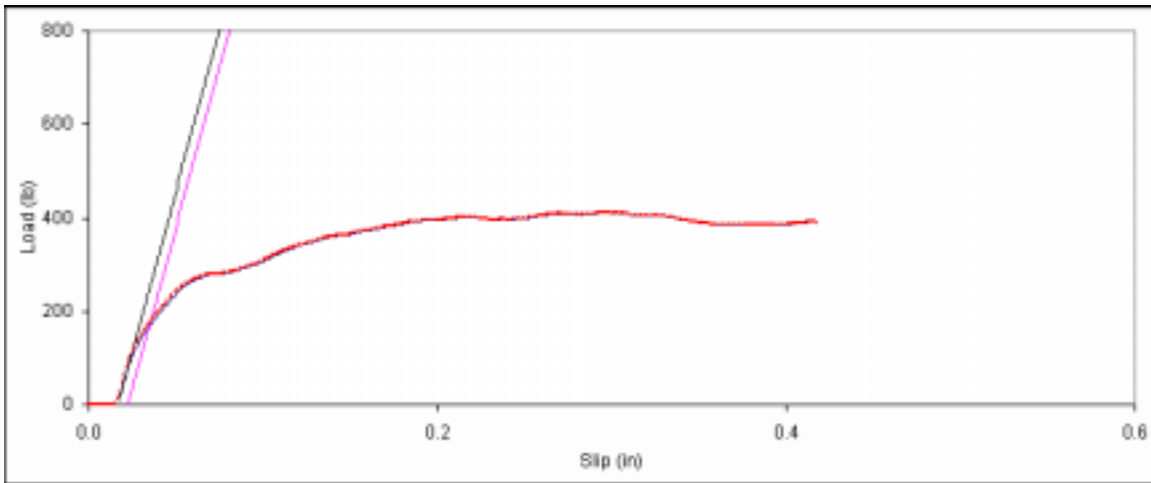


Figure D. 80: Bearing embedment plot for side member sample B-20.

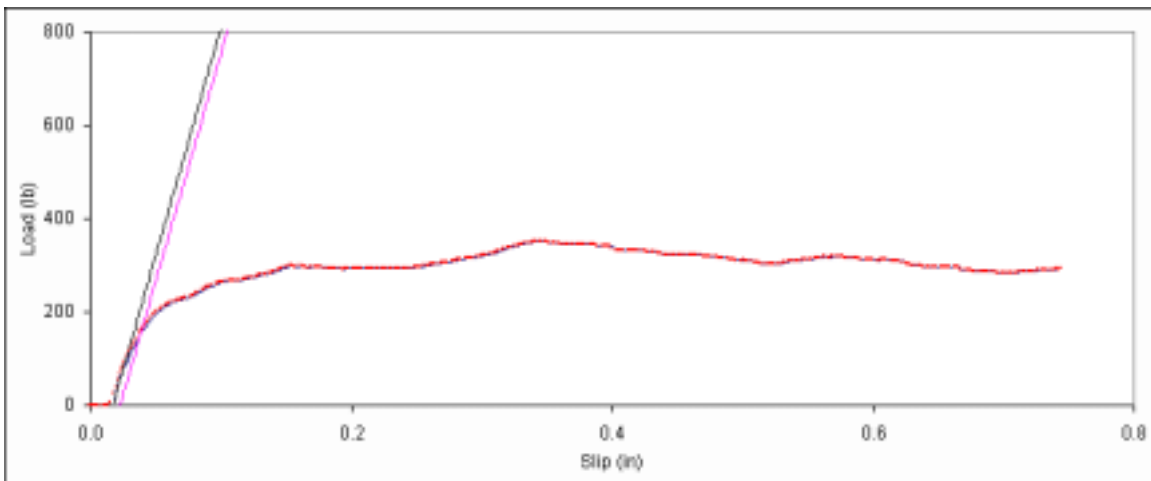


Figure D. 81: Bearing embedment plot for side member sample C-1.

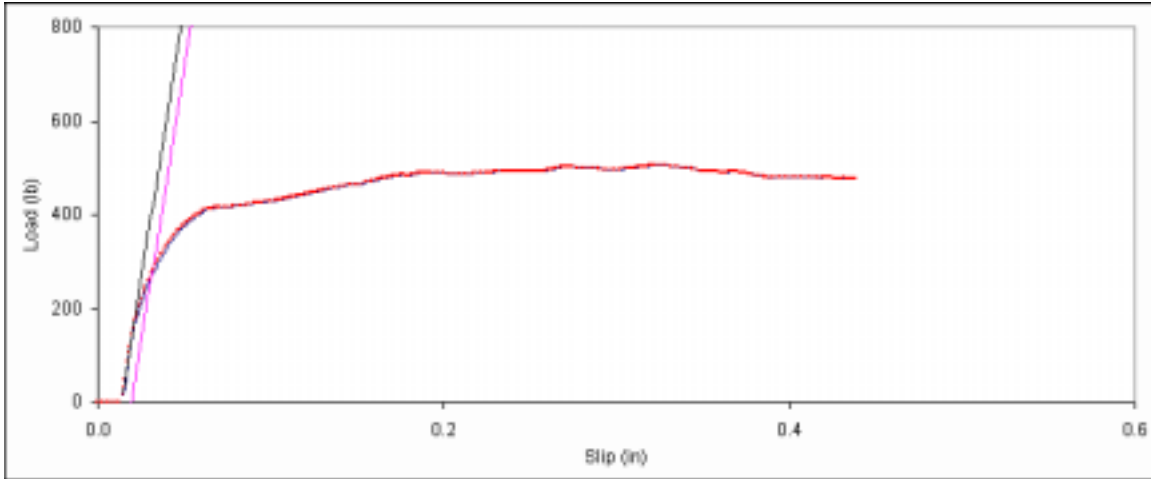


Figure D. 82: Bearing embedment plot for side member sample C-2.

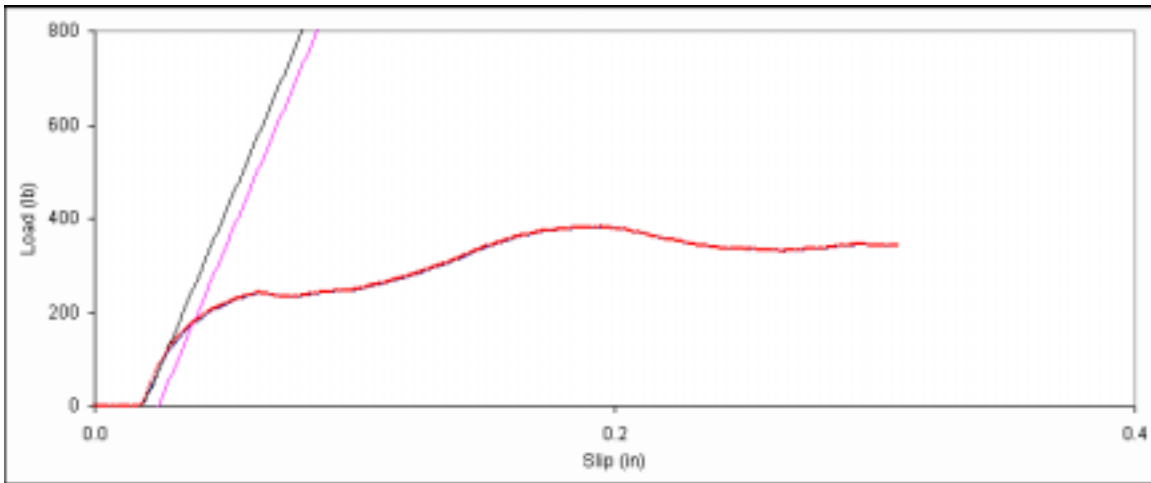


Figure D. 83: Bearing embedment plot for side member sample C-3.

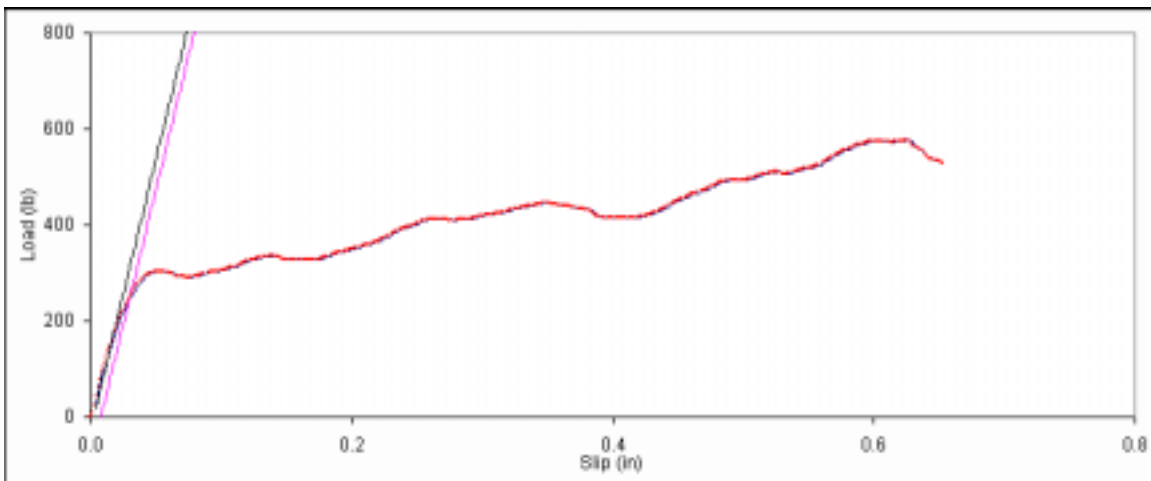


Figure D. 84: Bearing embedment plot for side member sample C-4.

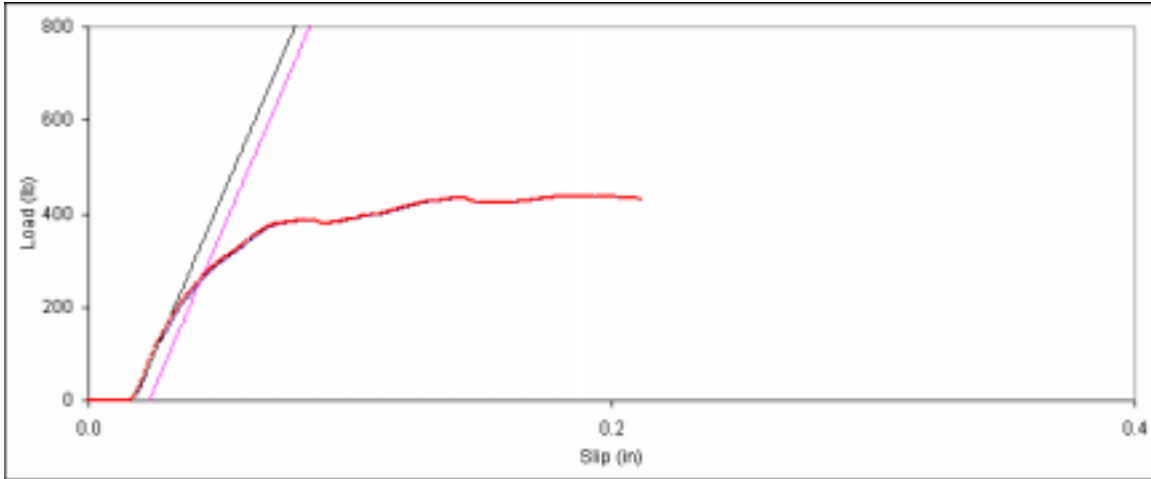


Figure D. 85: Bearing embedment plot for side member sample C-5.

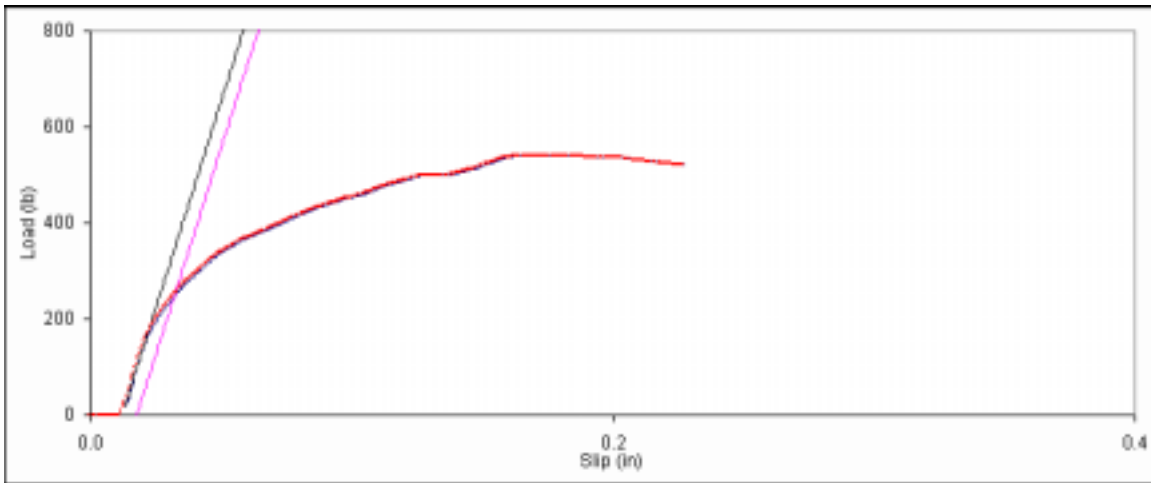


Figure D. 86: Bearing embedment plot for side member sample C-6.

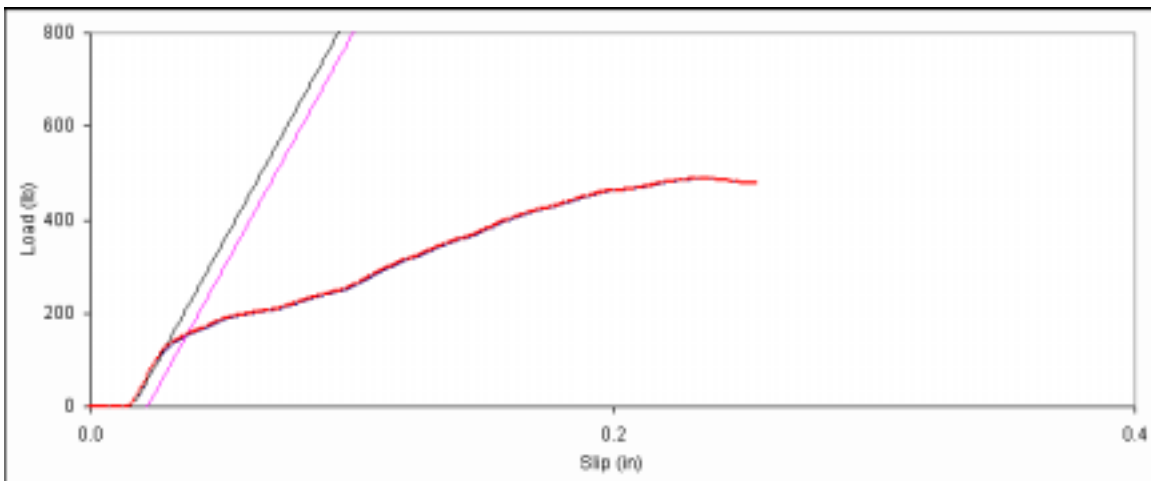


Figure D. 87: Bearing embedment plot for side member sample C-7.

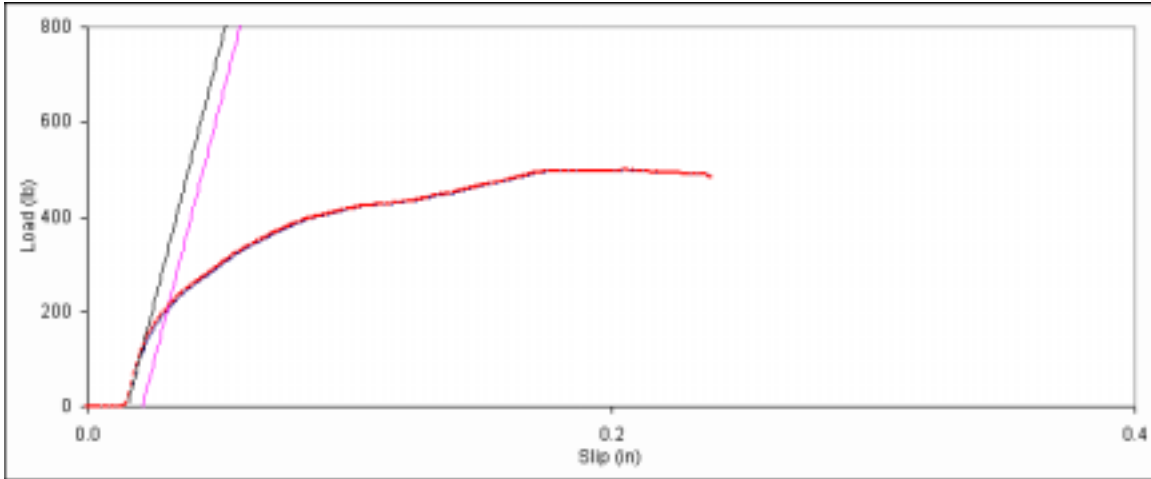


Figure D. 88: Bearing embedment plot for side member sample C-8.

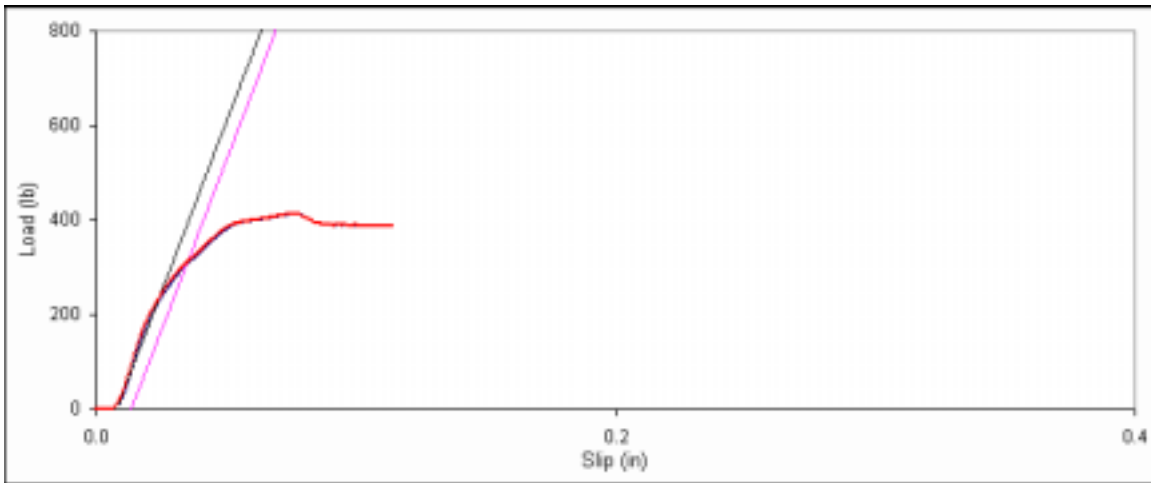


Figure D. 89: Bearing embedment plot for side member sample C-9.

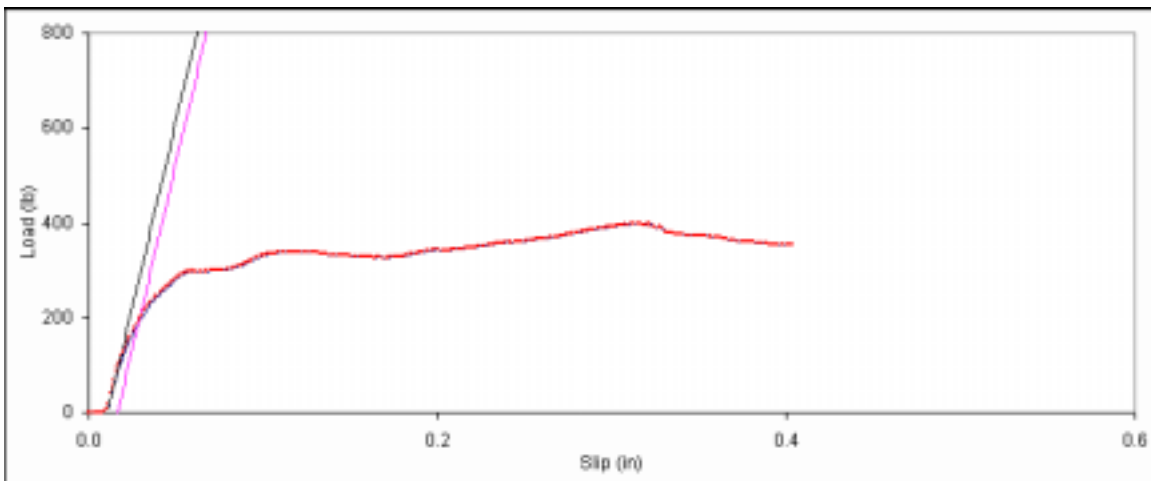


Figure D. 90: Bearing embedment plot for side member sample C-10.

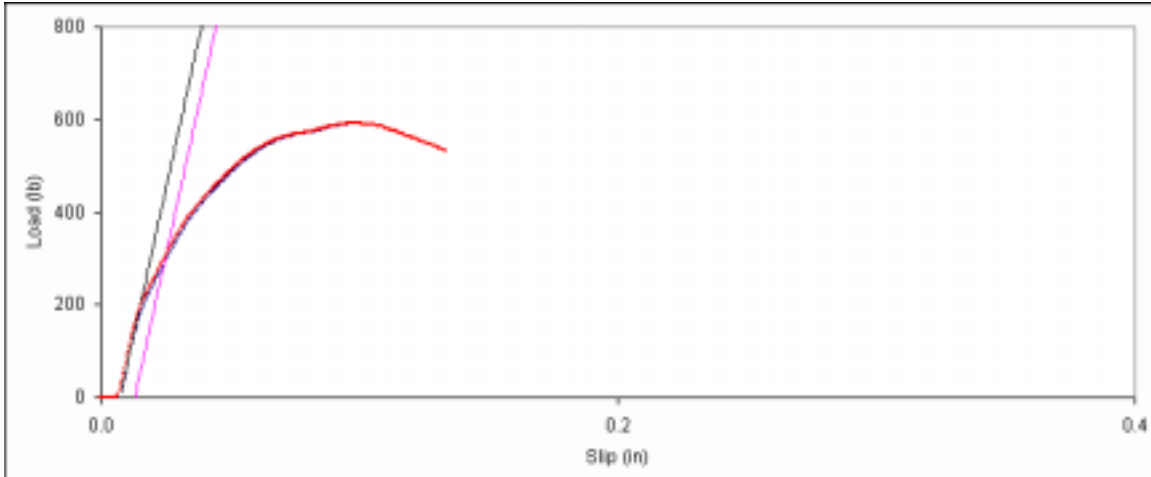


Figure D. 91: Bearing embedment plot for side member sample C-11.

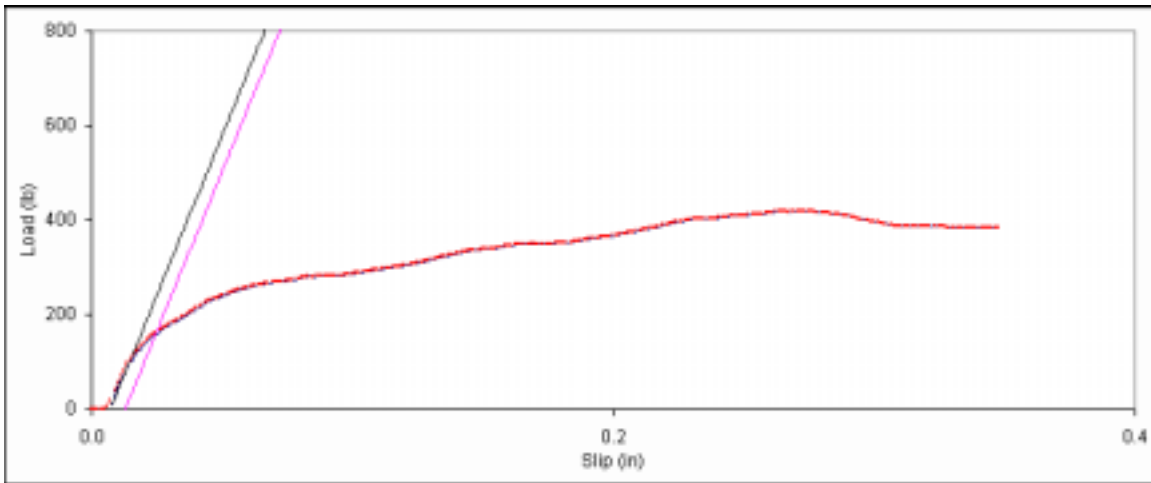


Figure D. 92: Bearing embedment plot for side member sample C-12.

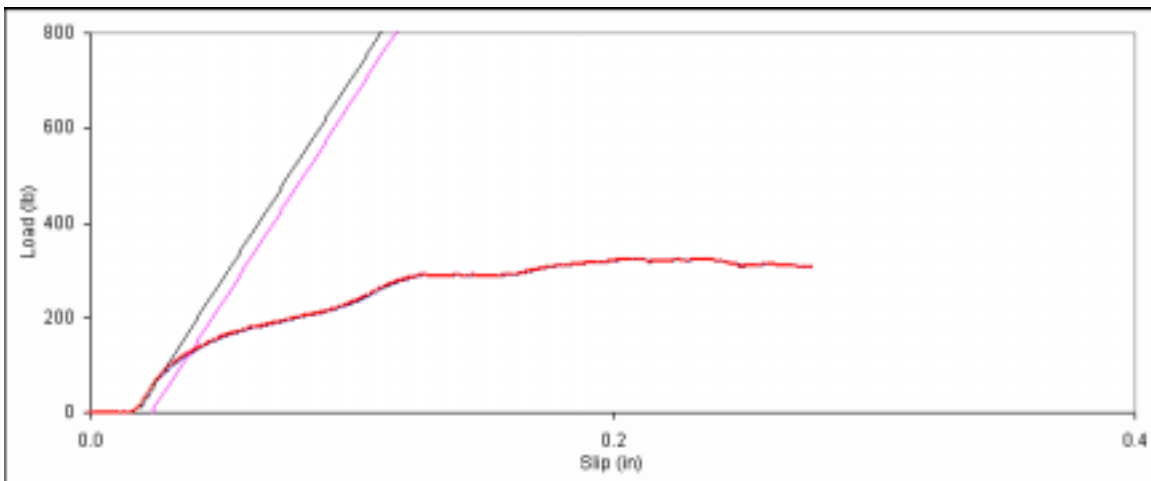


Figure D. 93: Bearing embedment plot for side member sample C-13.

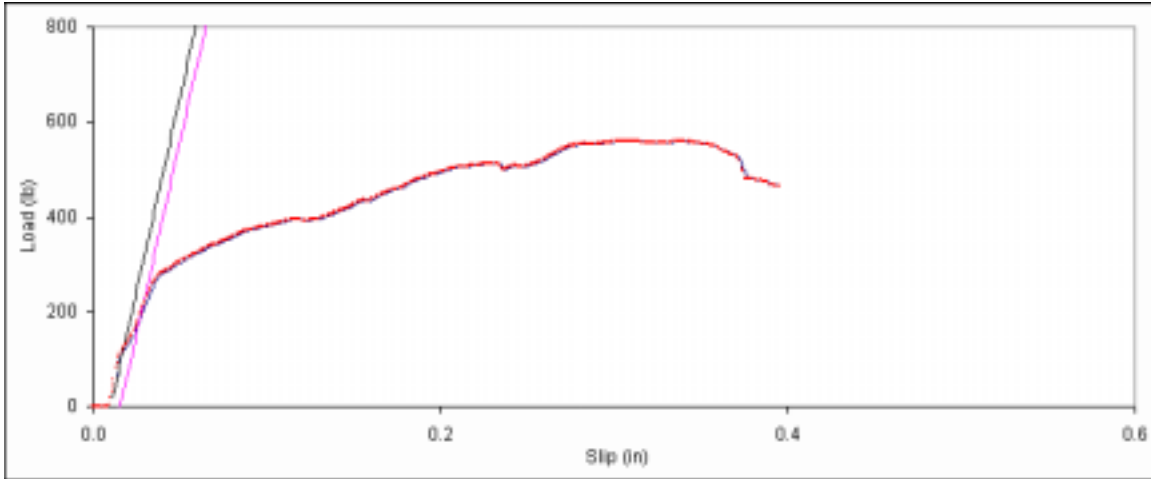


Figure D. 94: Bearing embedment plot for side member sample C-14.

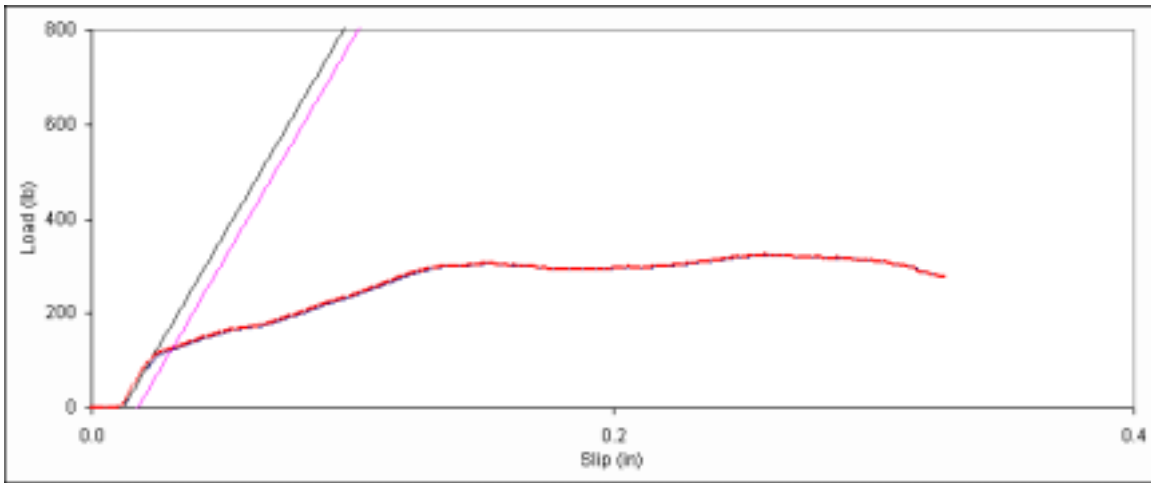


Figure D. 95: Bearing embedment plot for side member sample C-15.

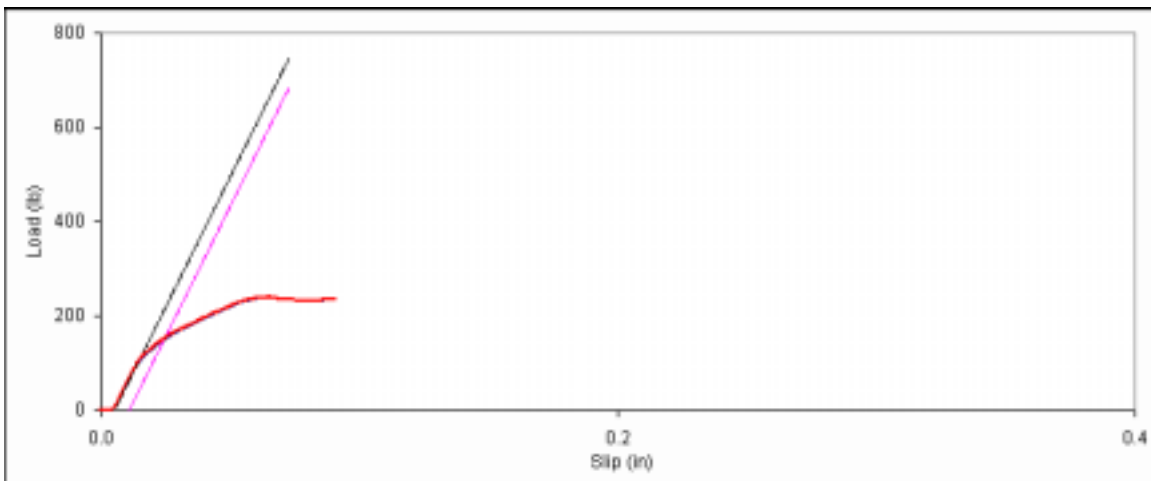


Figure D. 96: Bearing embedment plot for side member sample C-16.

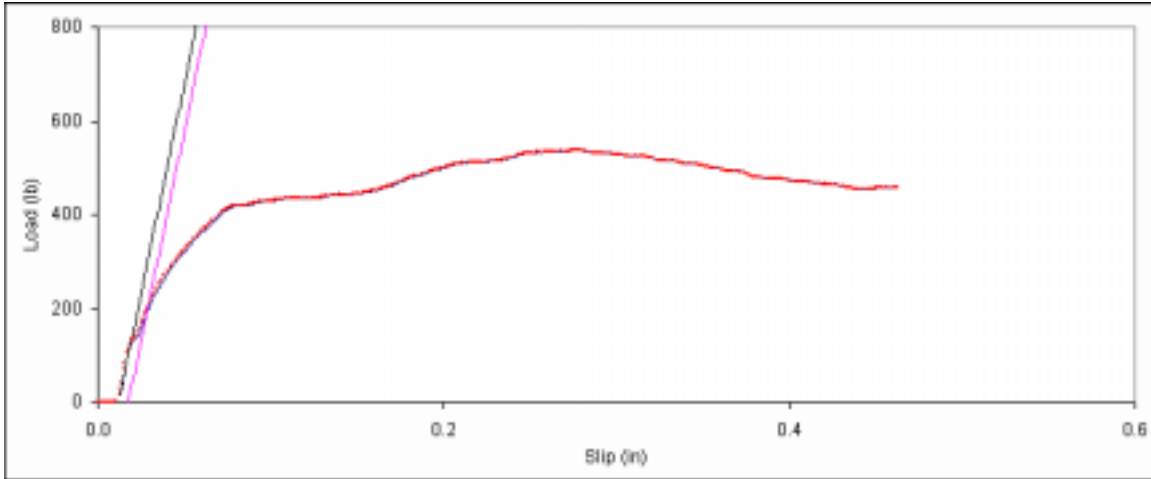


Figure D. 97: Bearing embedment plot for side member sample C-17.

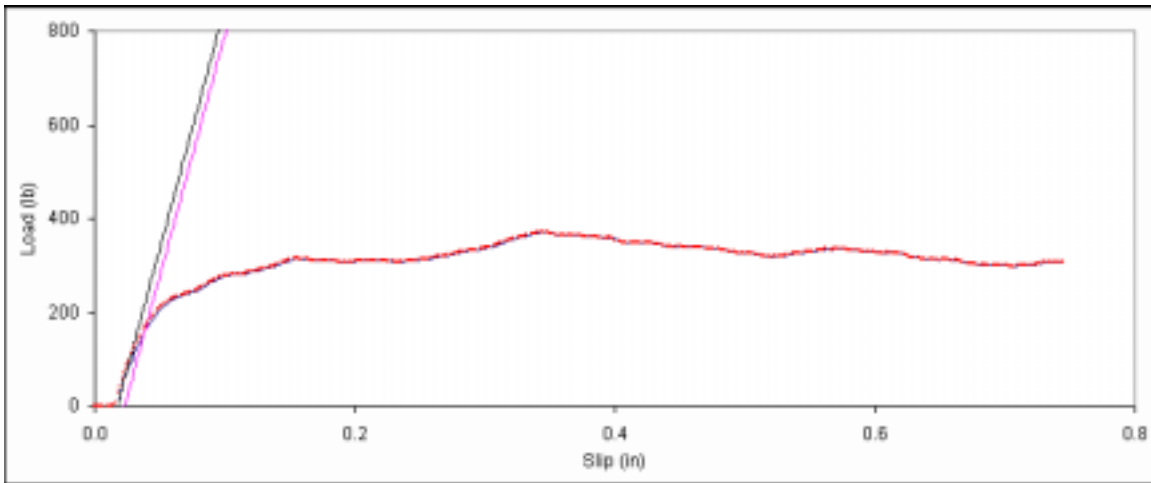


Figure D. 98: Bearing embedment plot for side member sample C-18.

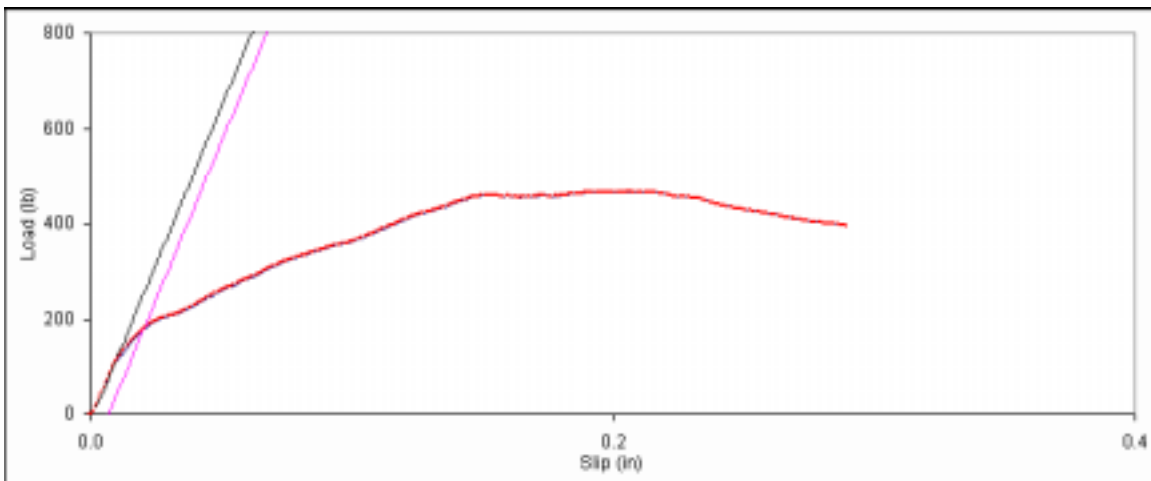


Figure D. 99: Bearing embedment plot for side member sample C-19.

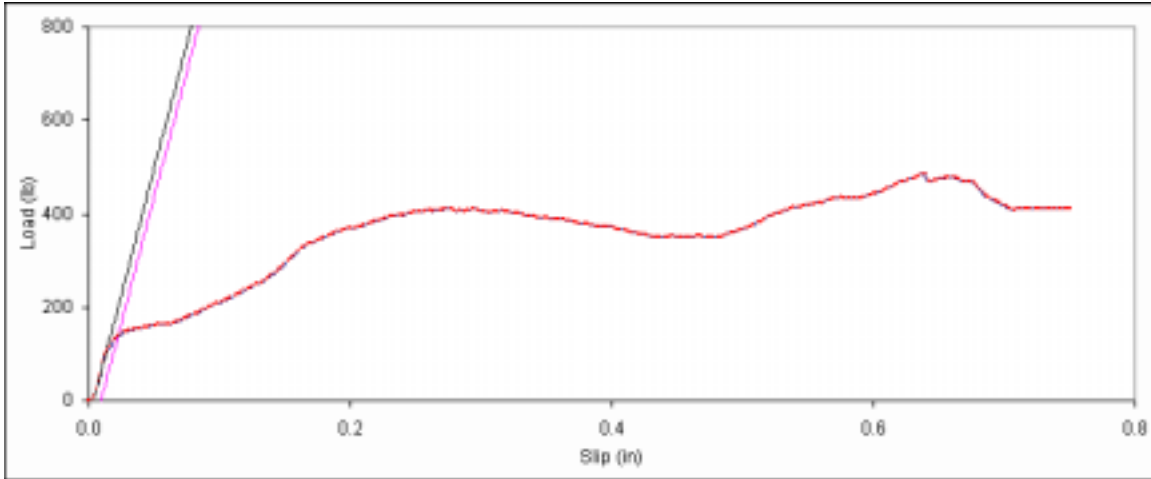


Figure D. 100: Bearing embedment plot for side member sample C-20.

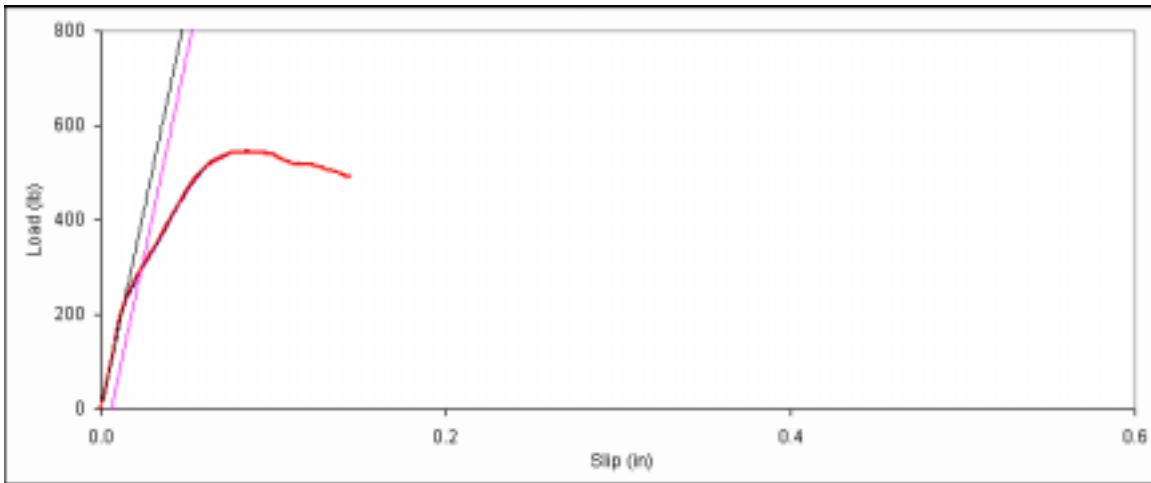


Figure D. 101: Bearing embedment plot for side member sample D-1.

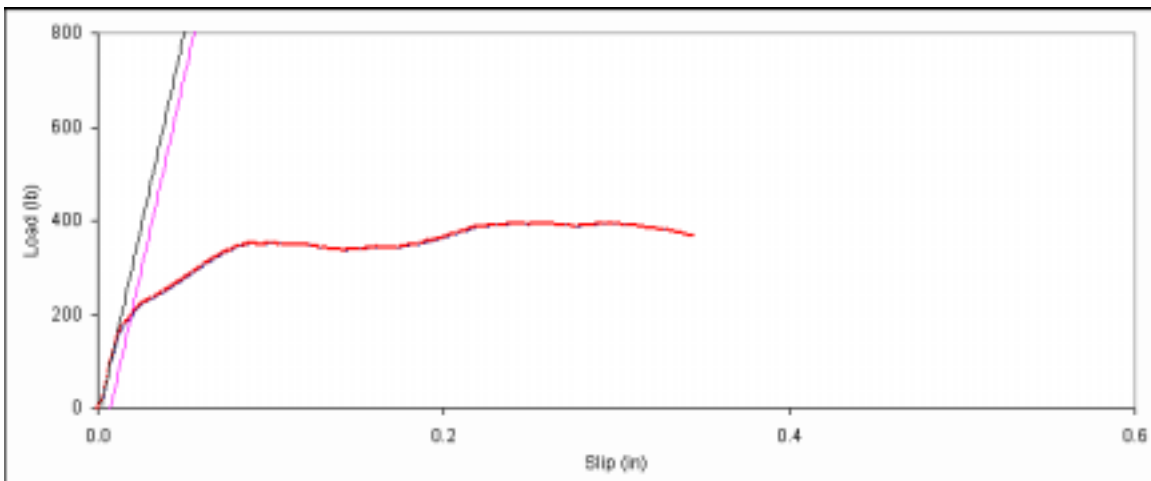


Figure D. 102: Bearing embedment plot for side member sample D-2.

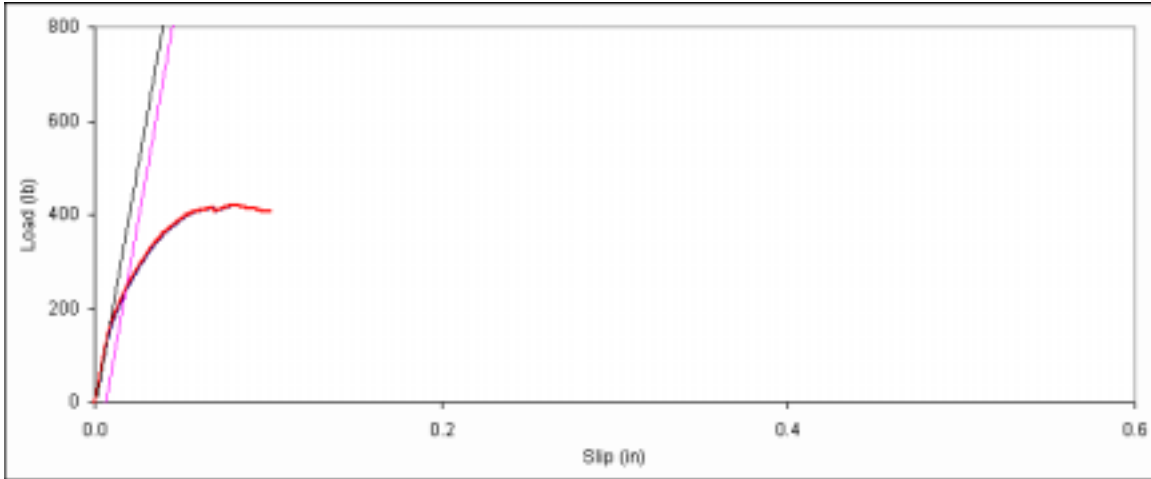


Figure D. 103: Bearing embedment plot for side member sample D-3.

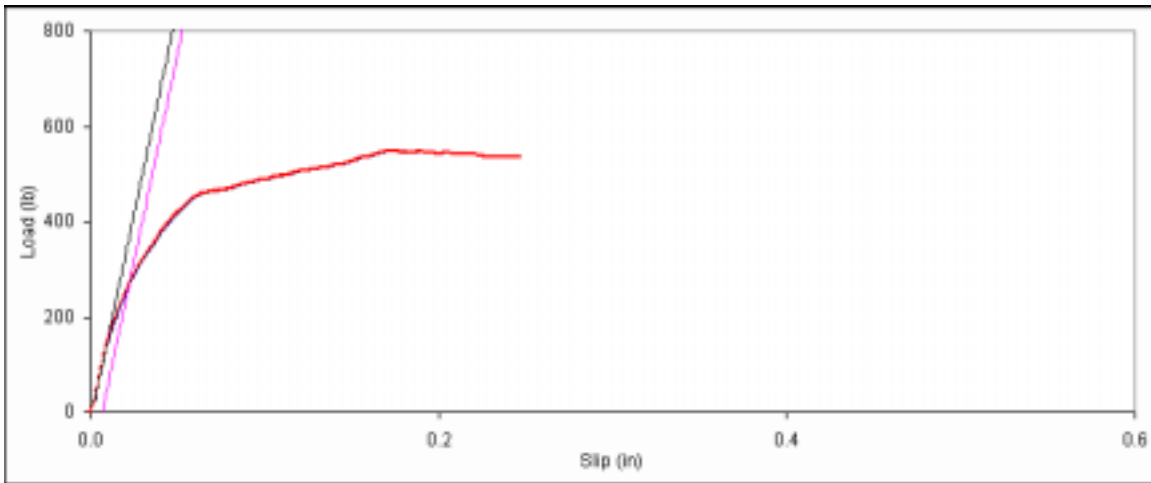


Figure D. 104: Bearing embedment plot for side member sample D-4.

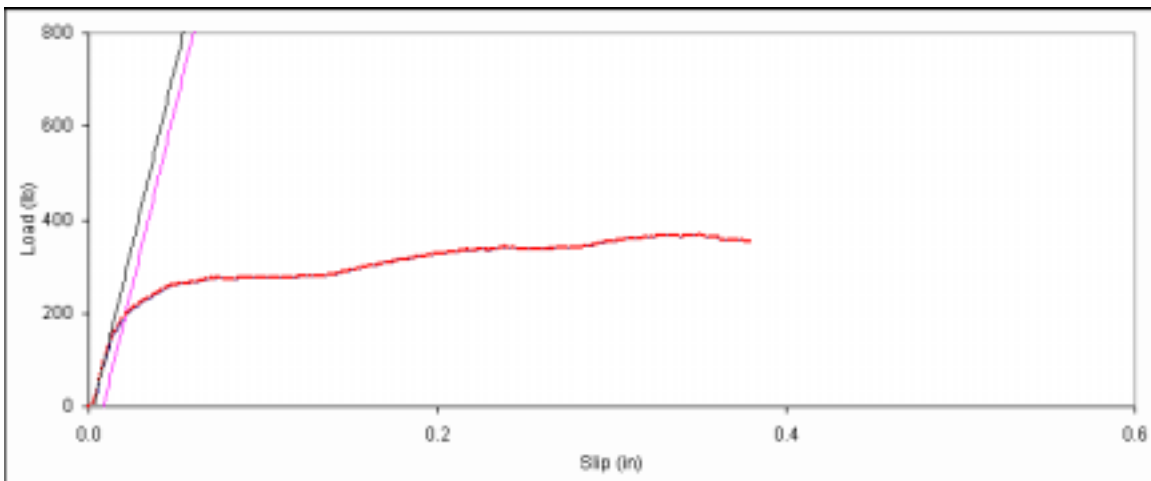


Figure D. 105: Bearing embedment plot for side member sample D-5.

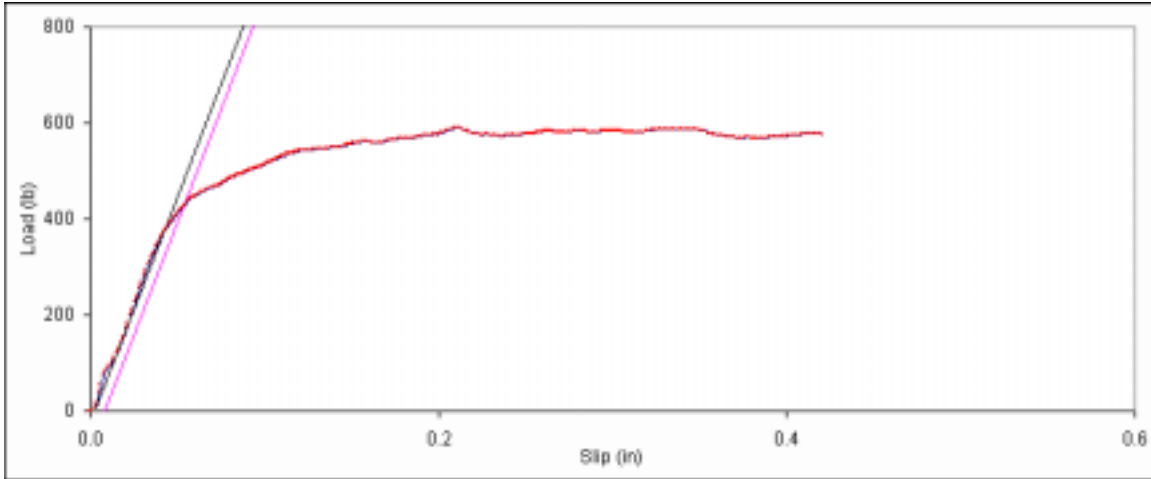


Figure D. 106: Bearing embedment plot for side member sample D-6.

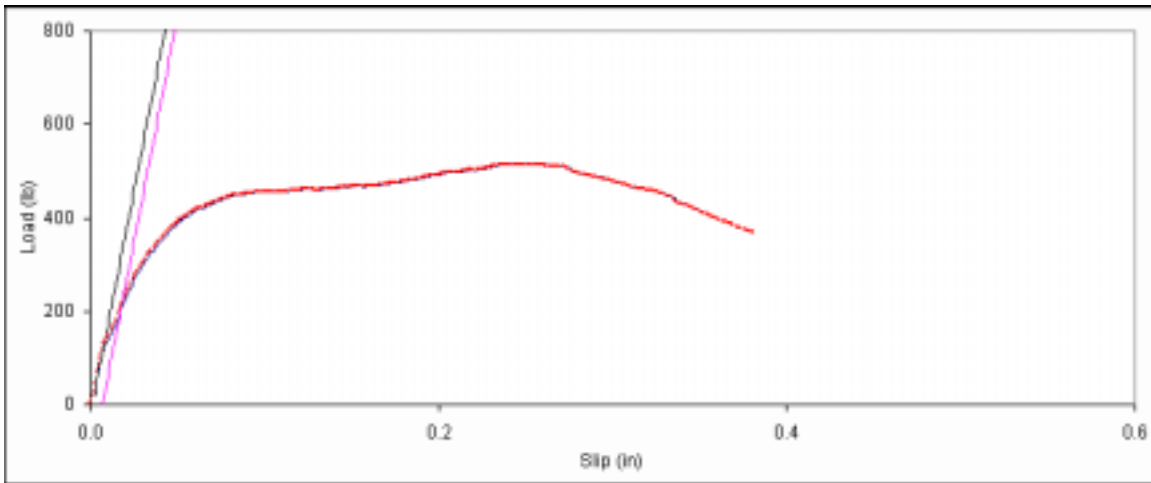


Figure D. 107: Bearing embedment plot for side member sample D-7.

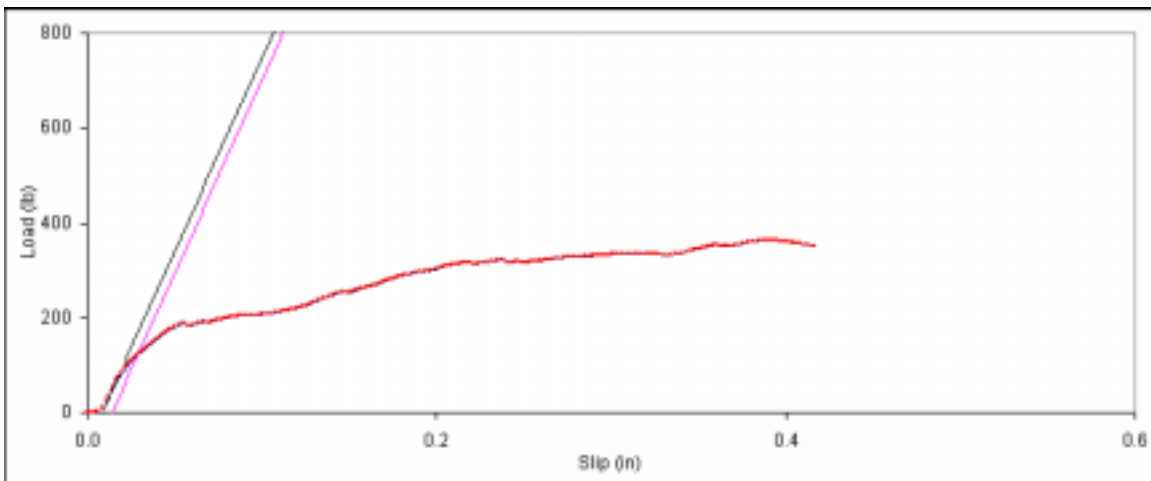


Figure D. 108: Bearing embedment plot for side member sample D-8.

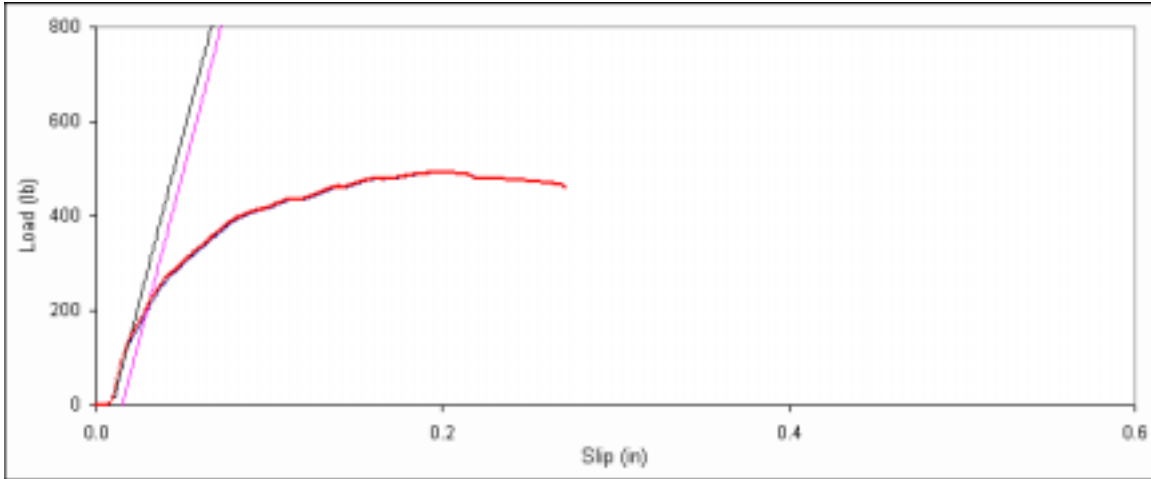


Figure D. 109: Bearing embedment plot for side member sample D-9.

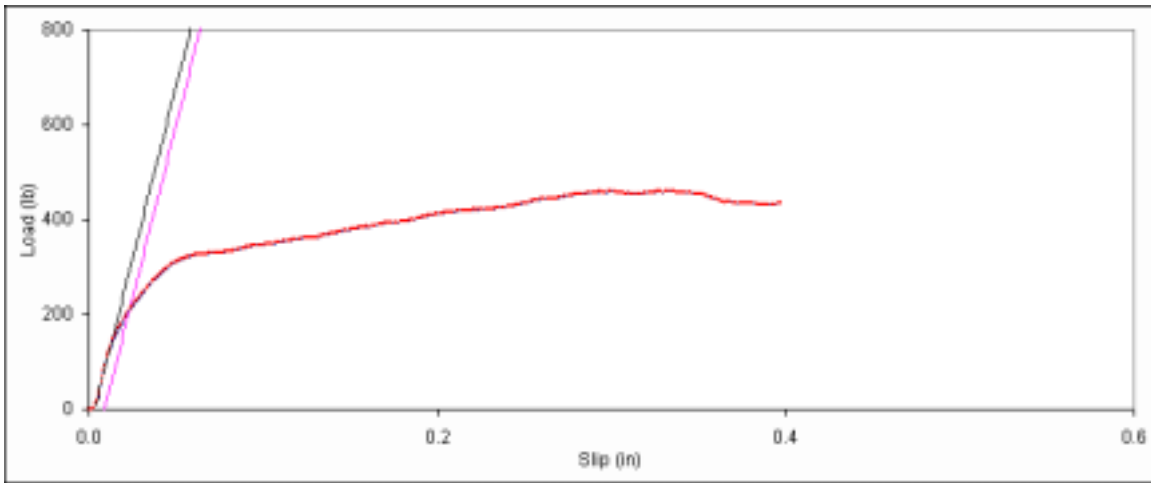


Figure D. 110: Bearing embedment plot for side member sample D-10.

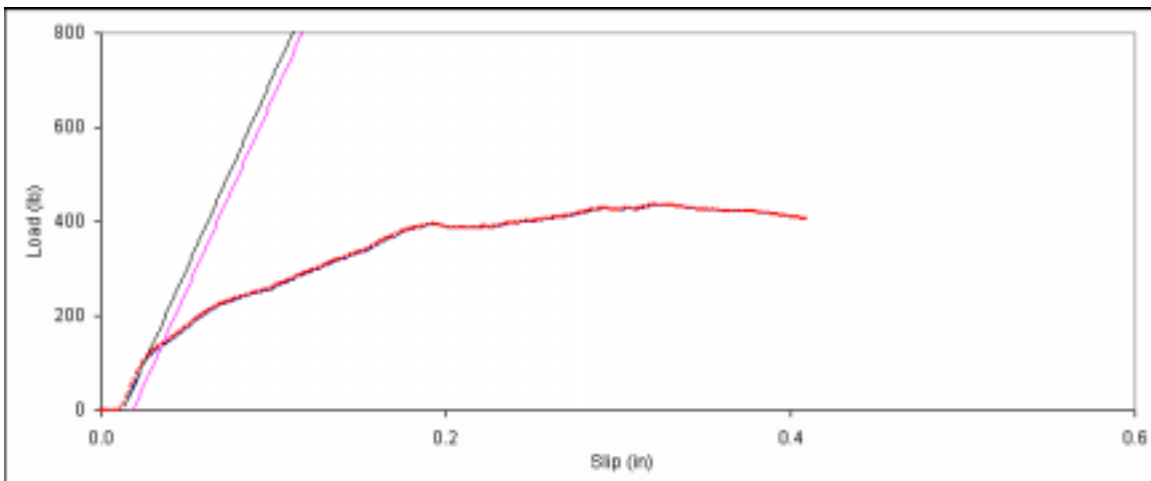


Figure D. 111: Bearing embedment plot for side member sample D-11.

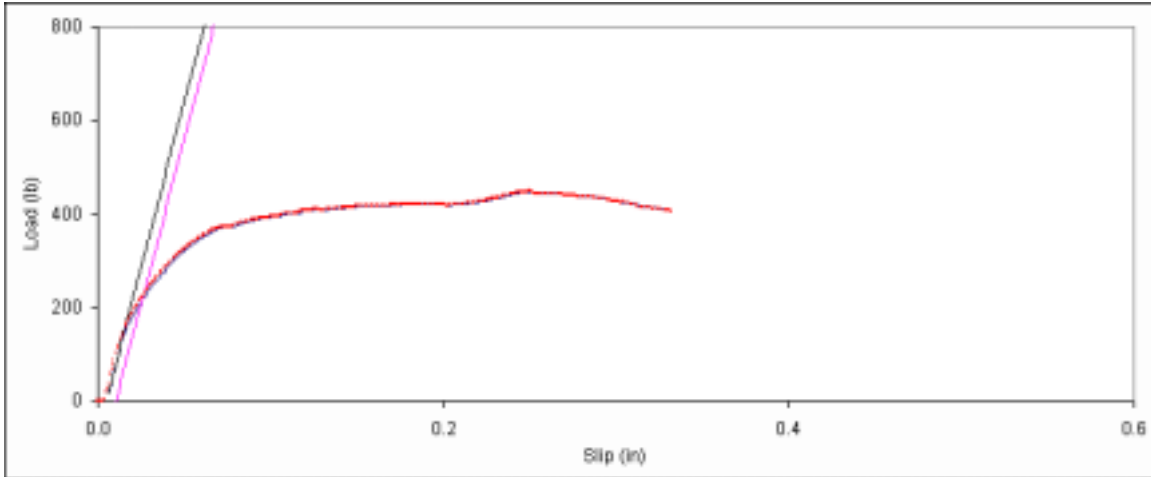


Figure D. 112: Bearing embedment plot for side member sample D-12.

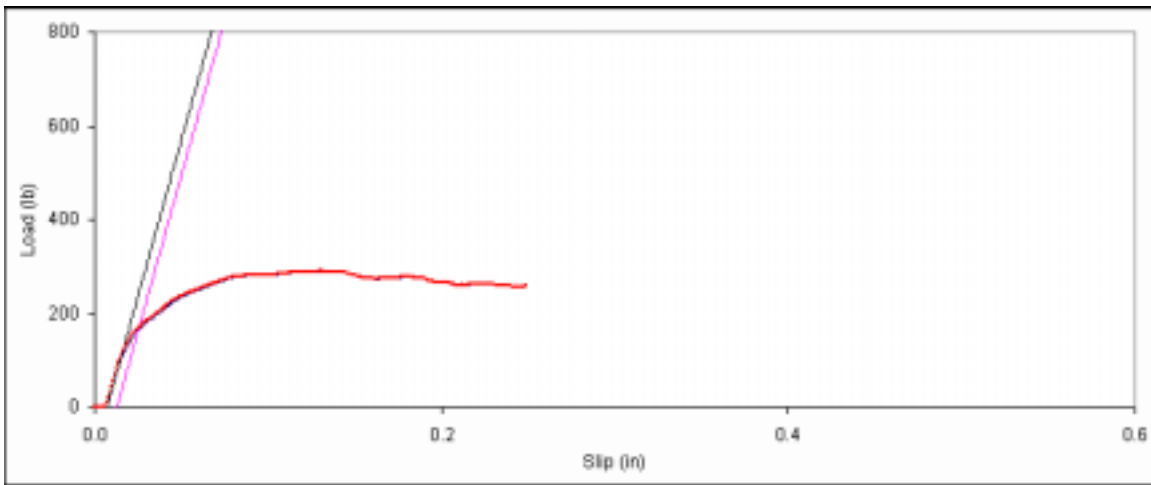


Figure D. 113: Bearing embedment plot for side member sample D-13.

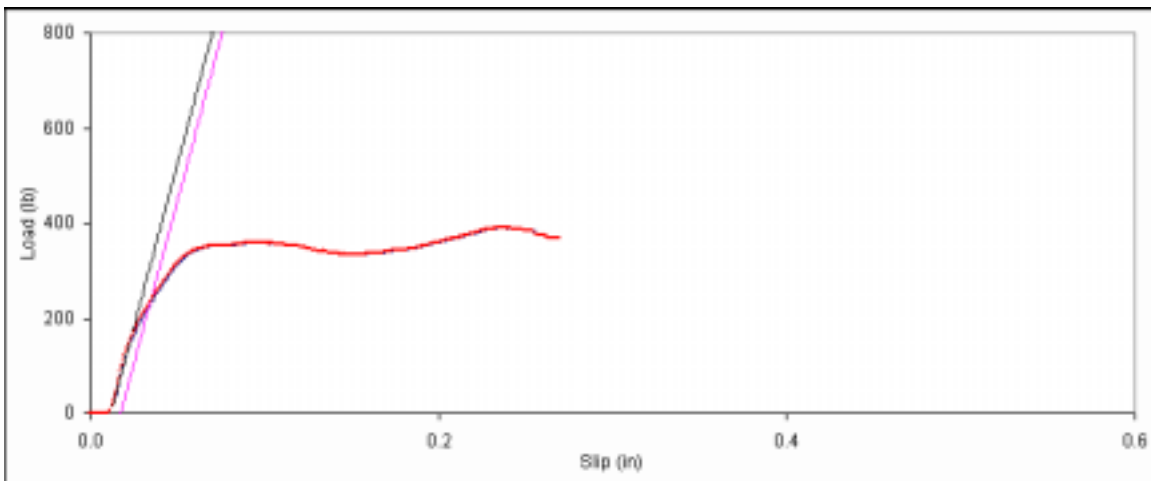


Figure D. 114: Bearing embedment plot for side member sample D-14.

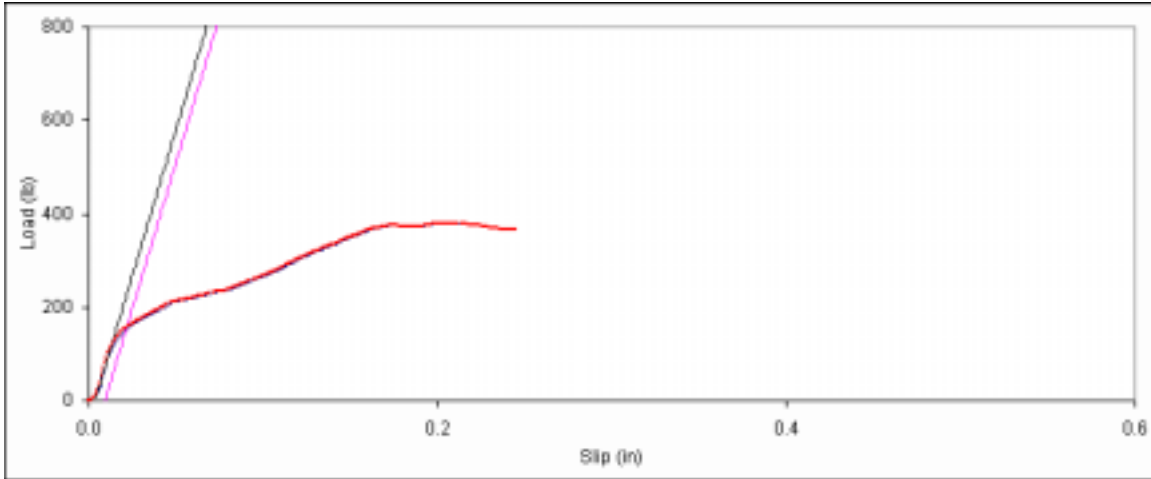


Figure D. 115: Bearing embedment plot for side member sample D-15.

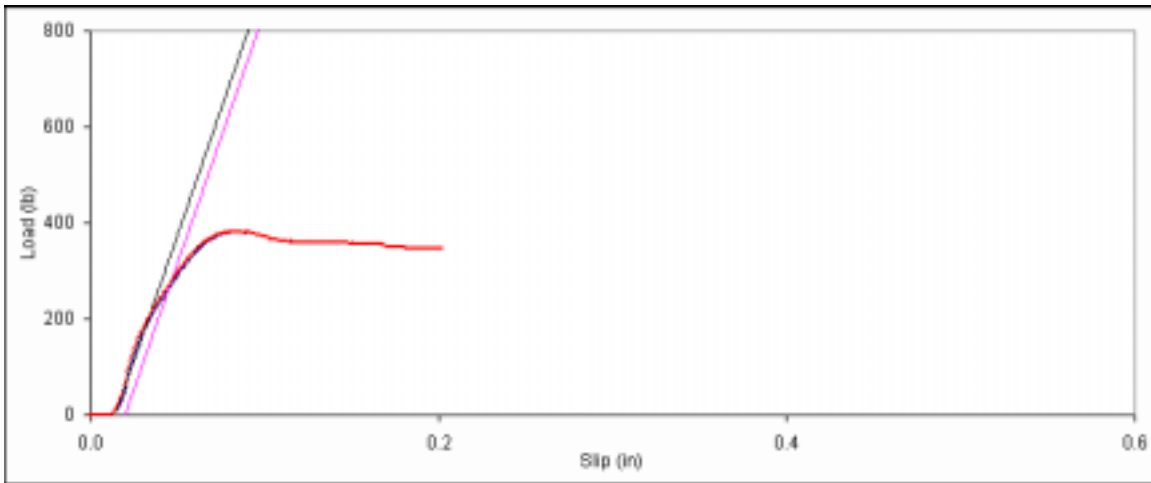


Figure D. 116: Bearing embedment plot for side member sample D-16.

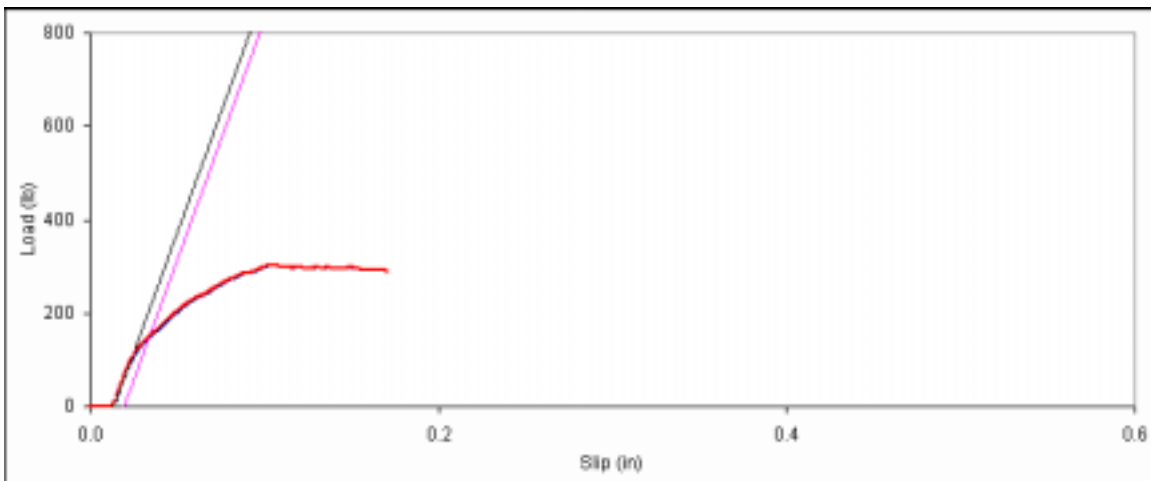


Figure D. 117: Bearing embedment plot for side member sample D-17.

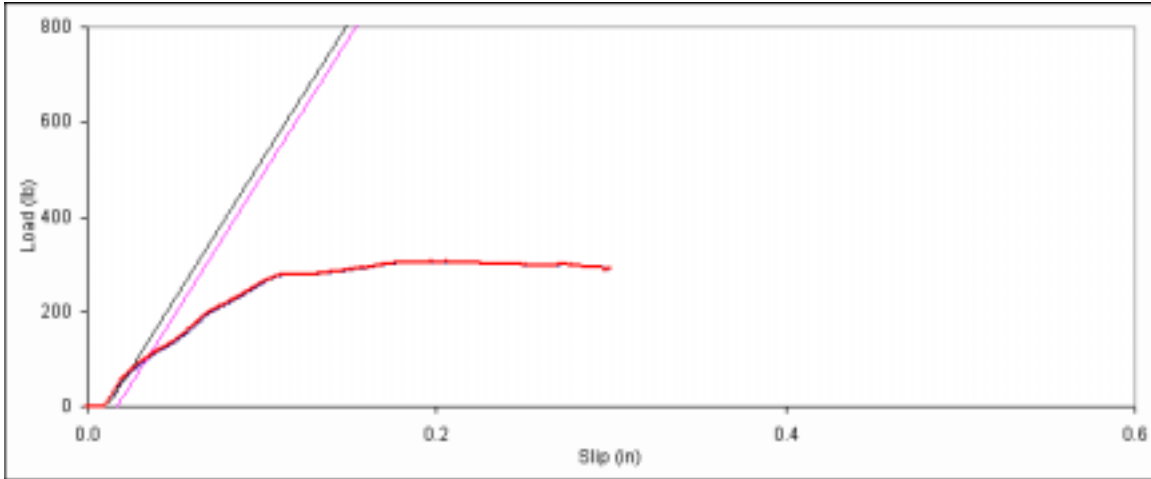


Figure D. 118: Bearing embedment plot for side member sample D-18.

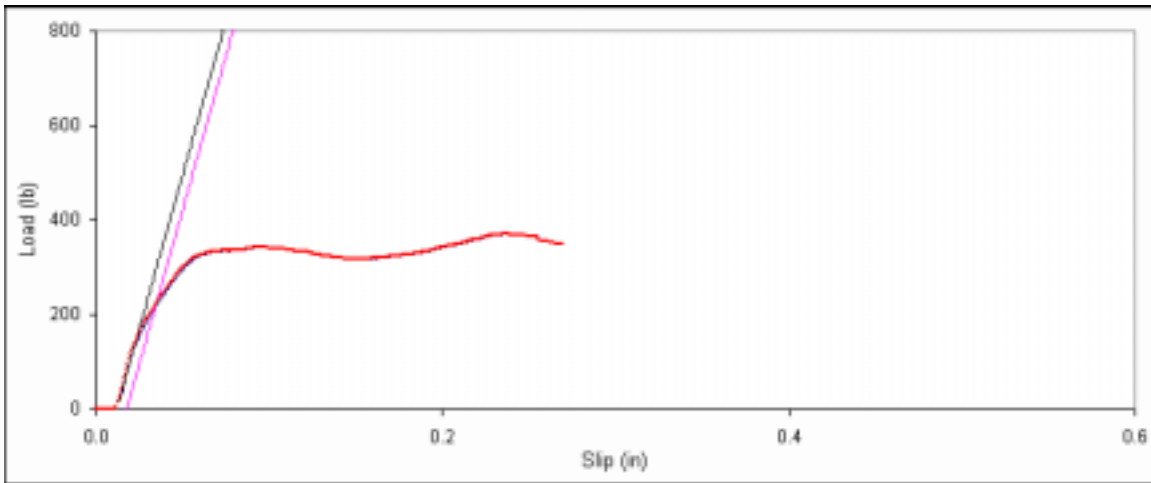


Figure D. 119: Bearing embedment plot for side member sample D-19.

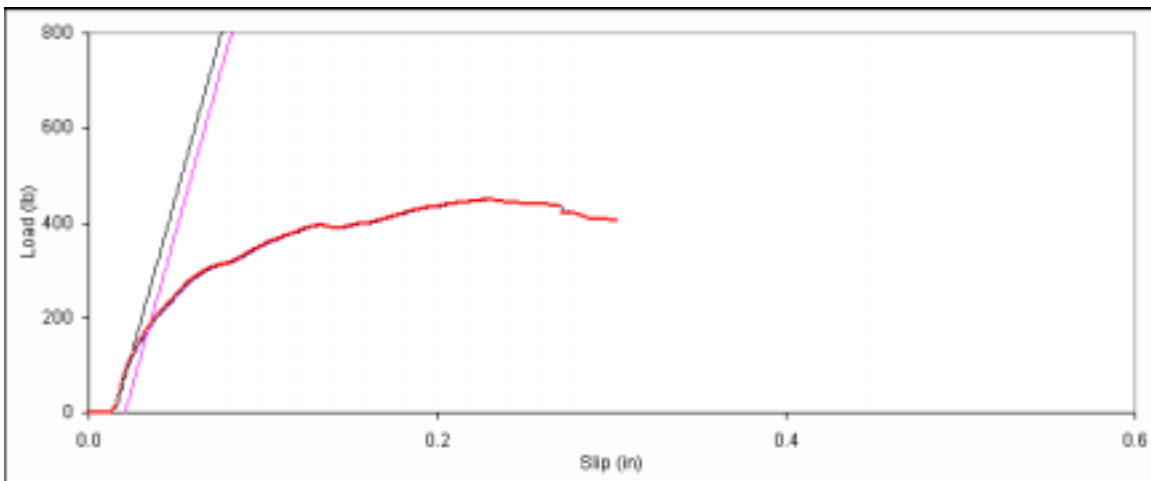


Figure D. 120: Bearing embedment plot for side member sample D-20.

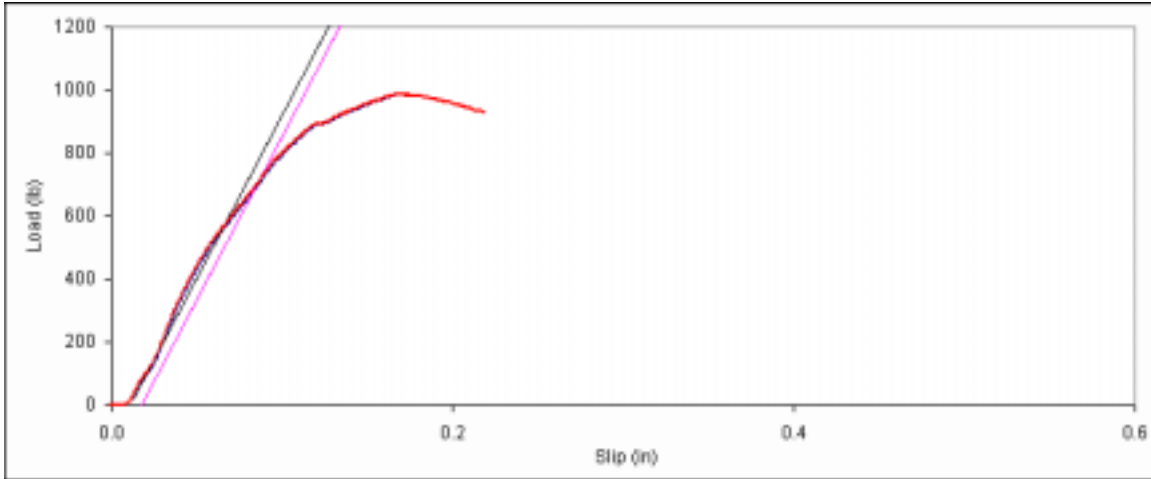


Figure D. 121: Bearing embedment plot for side member sample E-1.

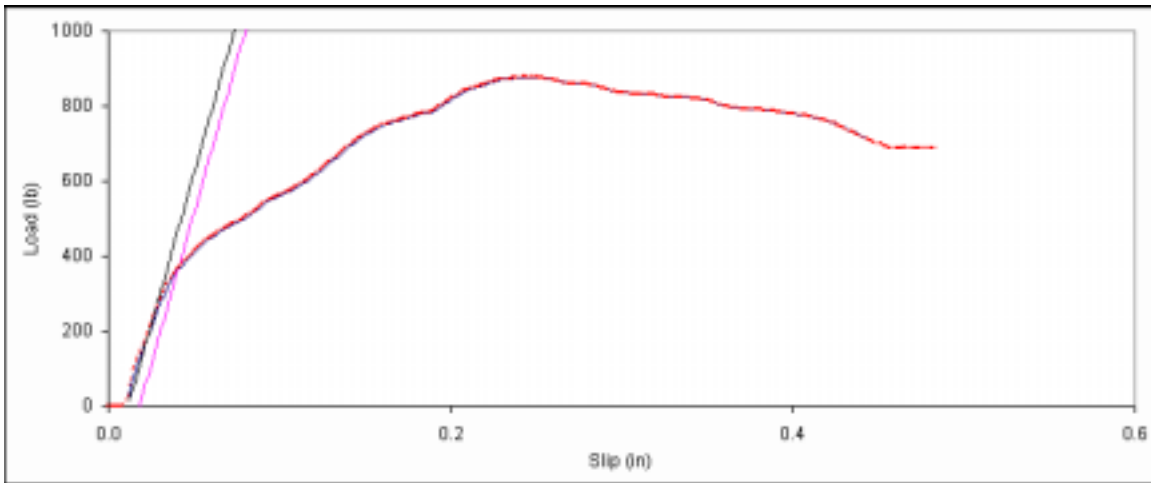


Figure D. 122: Bearing embedment plot for side member sample E-2.

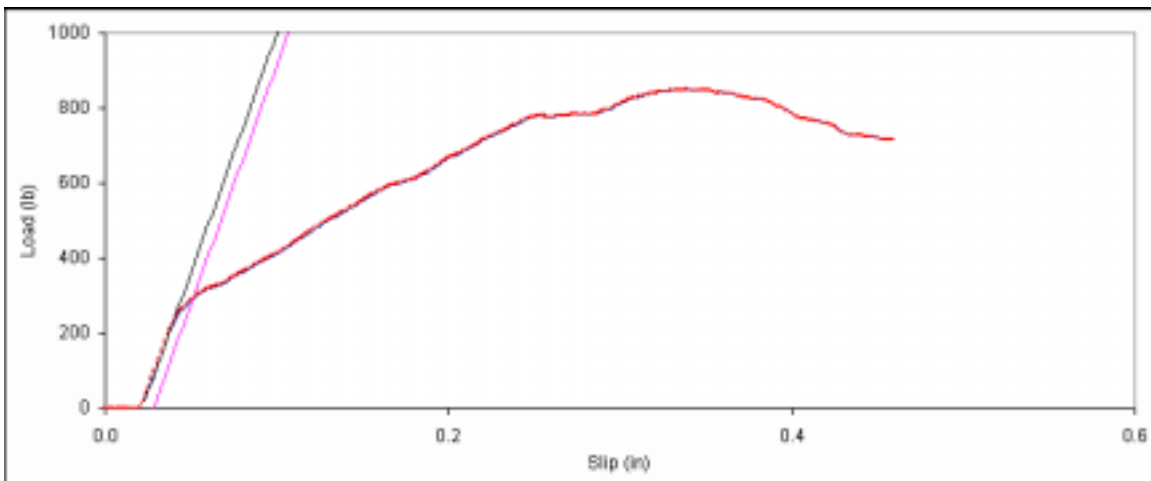


Figure D. 123: Bearing embedment plot for side member sample E-3.

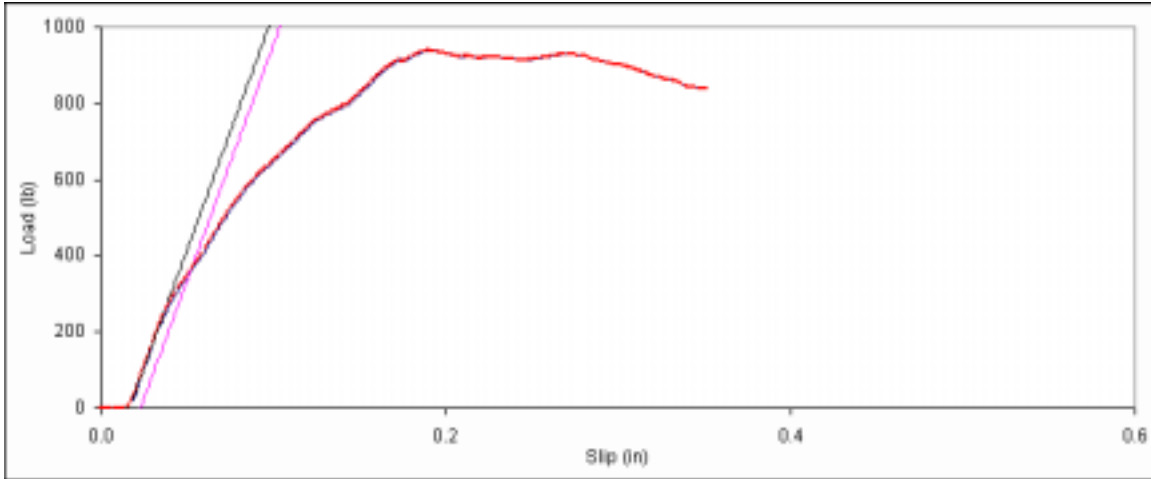


Figure D. 124: Bearing embedment plot for side member sample E-4.

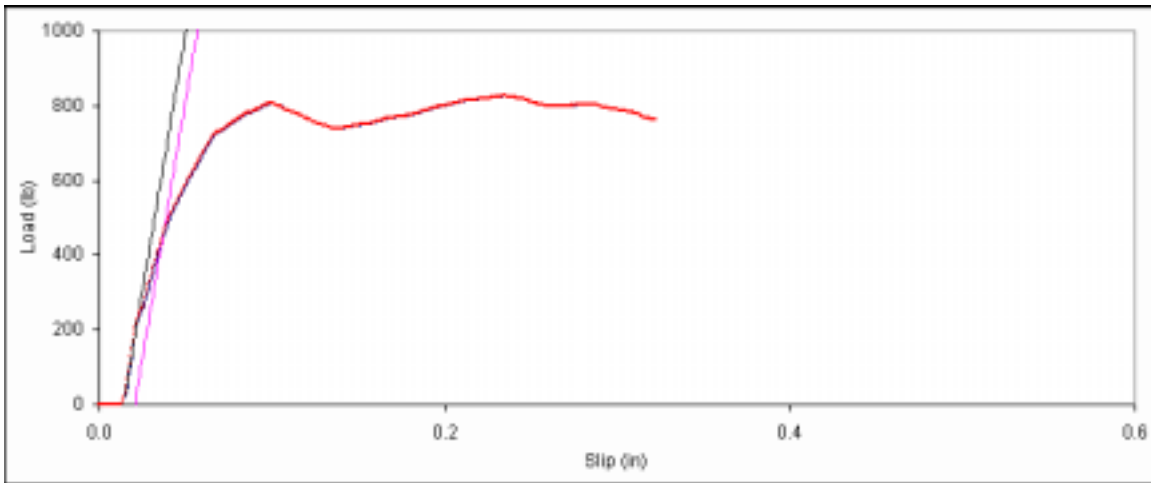


Figure D. 125: Bearing embedment plot for side member sample E-5.

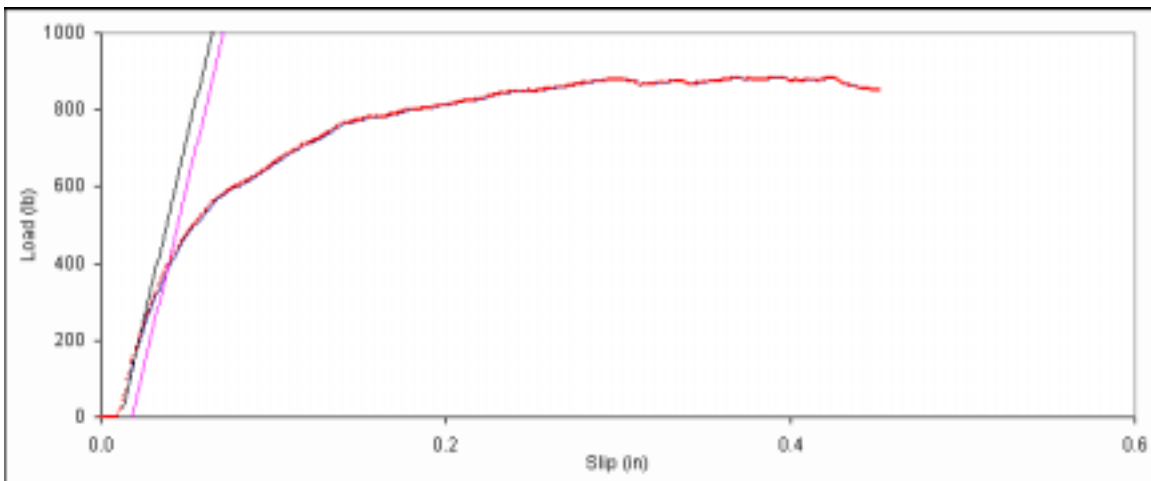


Figure D. 126: Bearing embedment plot for side member sample E-6.

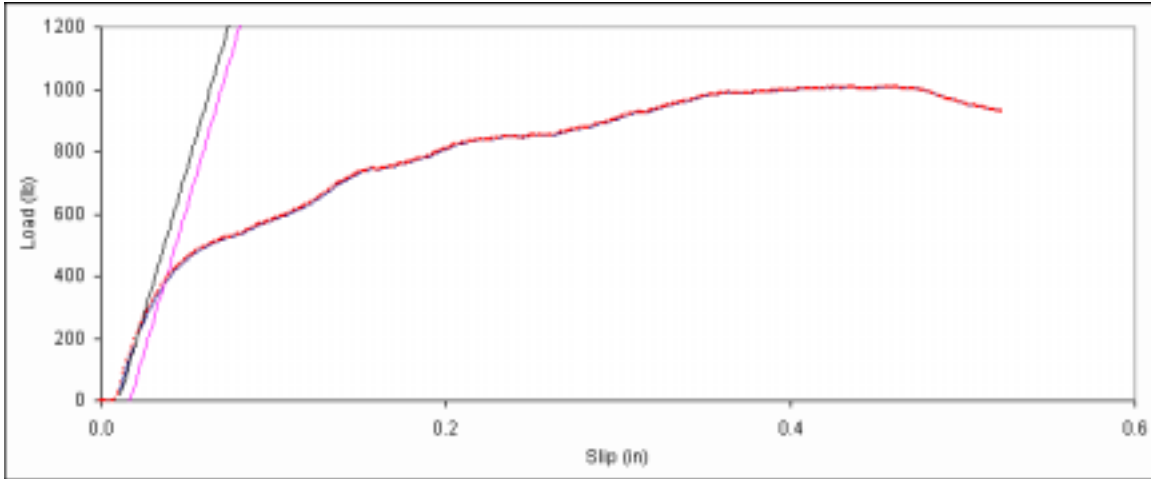


Figure D. 127: Bearing embedment plot for side member sample E-7.

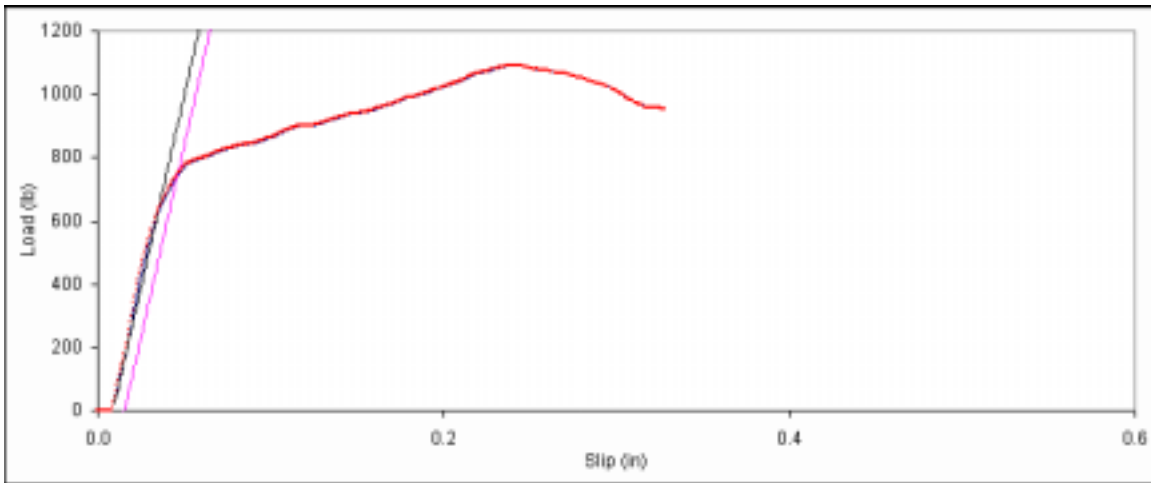


Figure D. 128: Bearing embedment plot for side member sample E-8.

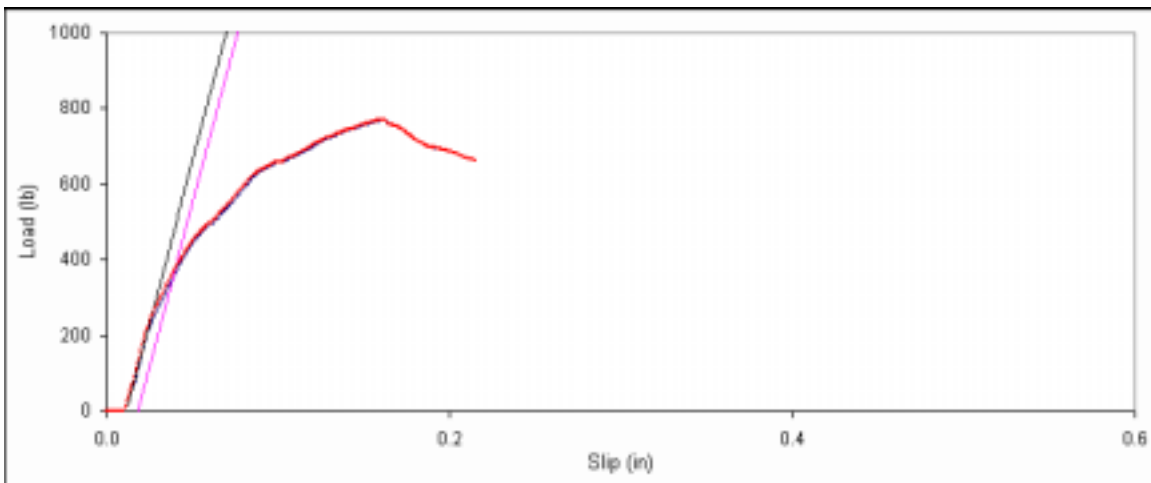


Figure D. 129: Bearing embedment plot for side member sample E-9.

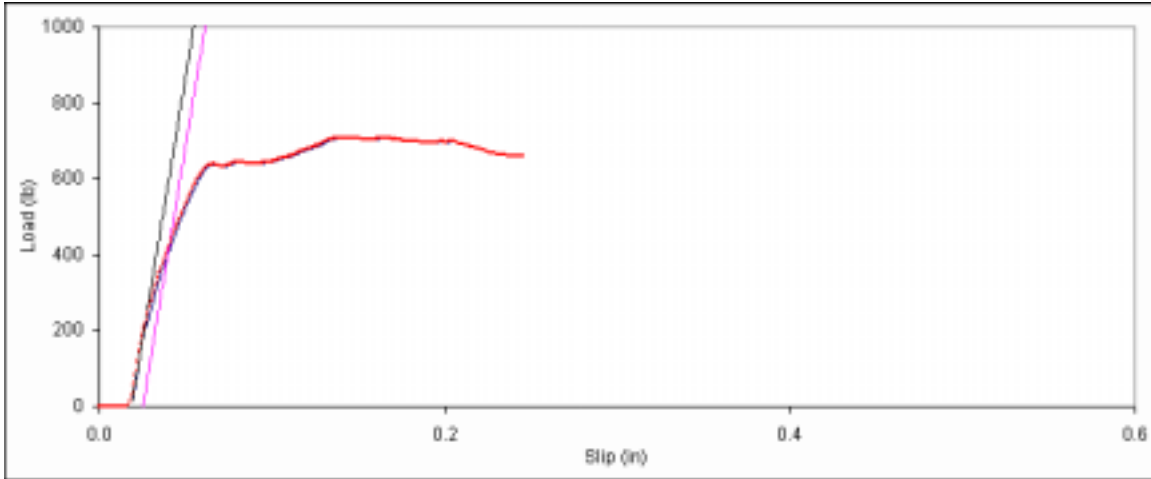


Figure D. 130: Bearing embedment plot for side member sample E-10.

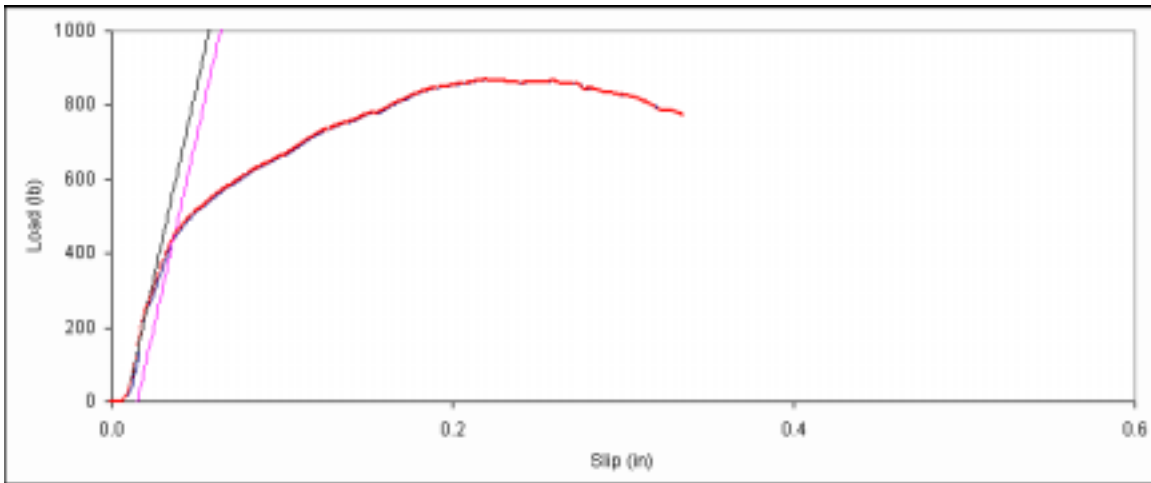


Figure D. 131: Bearing embedment plot for side member sample E-11.

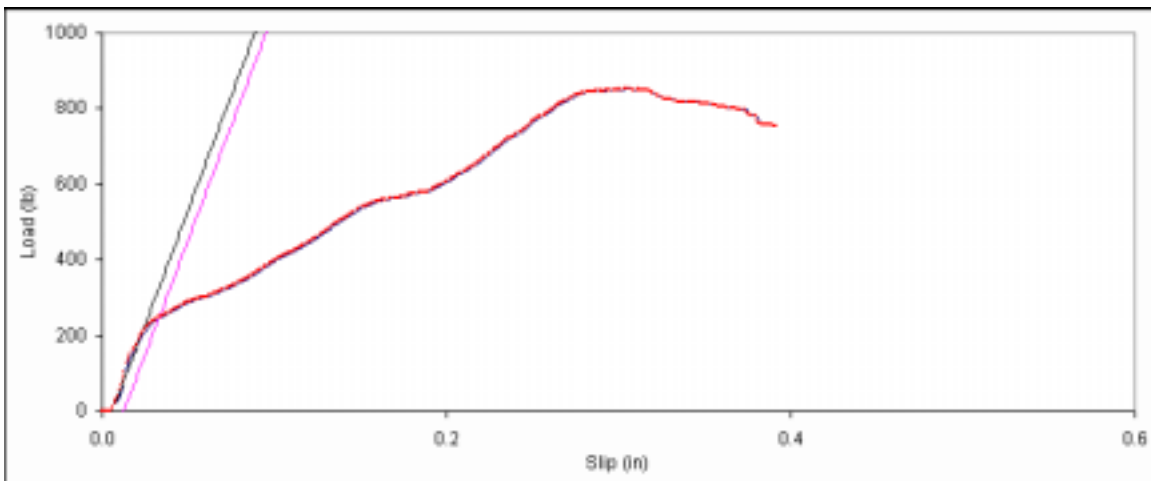


Figure D. 132: Bearing embedment plot for side member sample E-12.

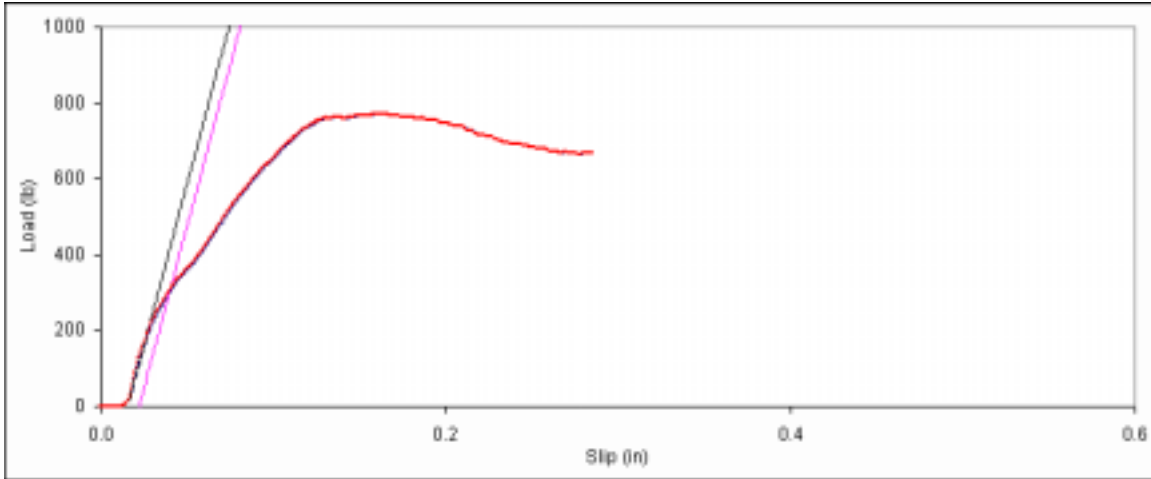


Figure D. 133: Bearing embedment plot for side member sample E-13.

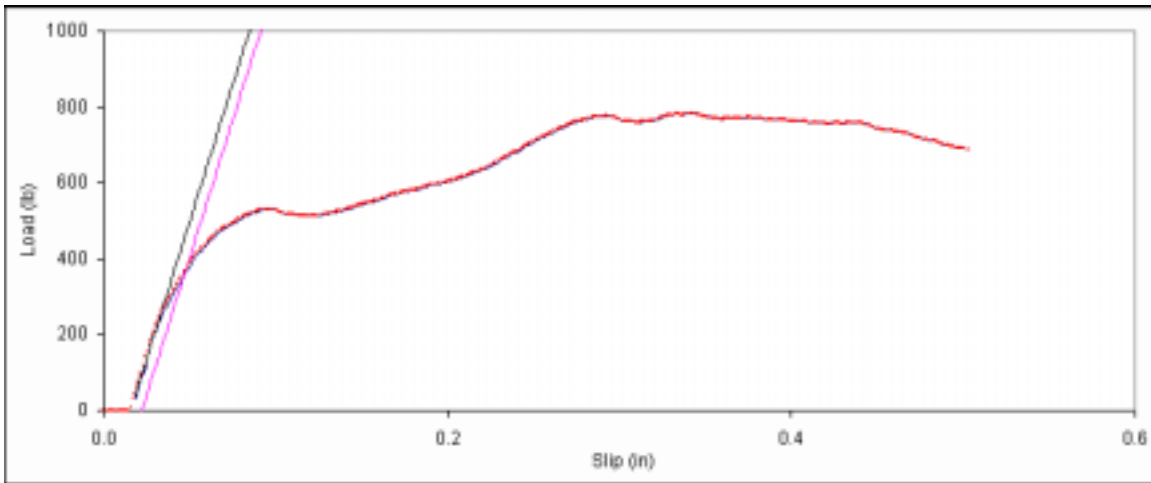


Figure D. 134: Bearing embedment plot for side member sample E-14.

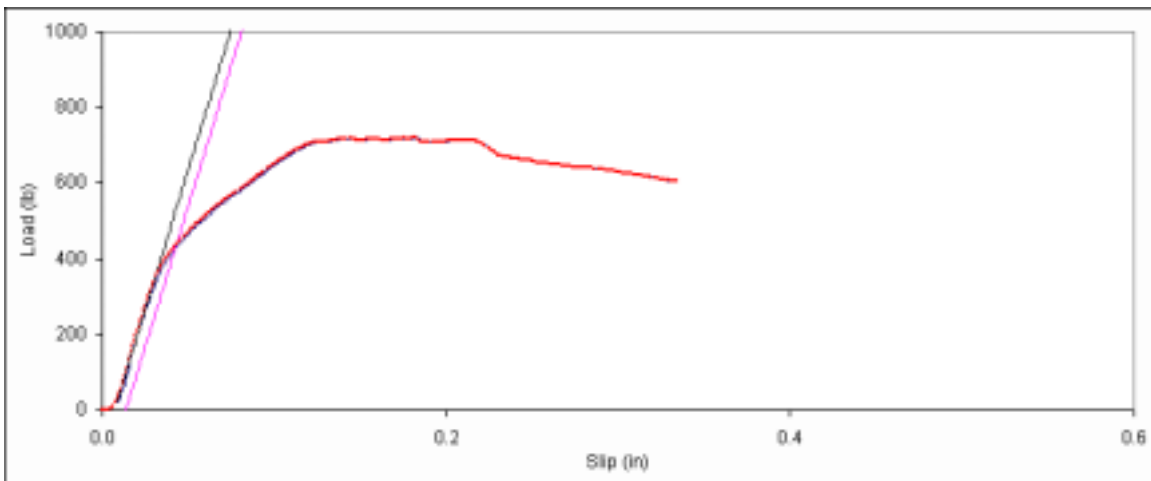


Figure D. 135: Bearing embedment plot for side member sample E-15.

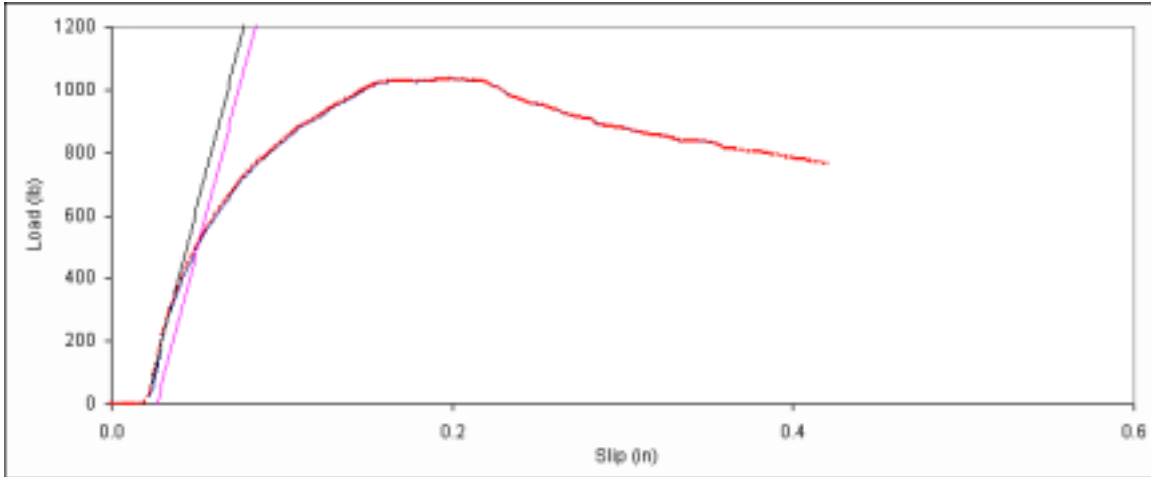


Figure D. 136: Bearing embedment plot for side member sample E-16.

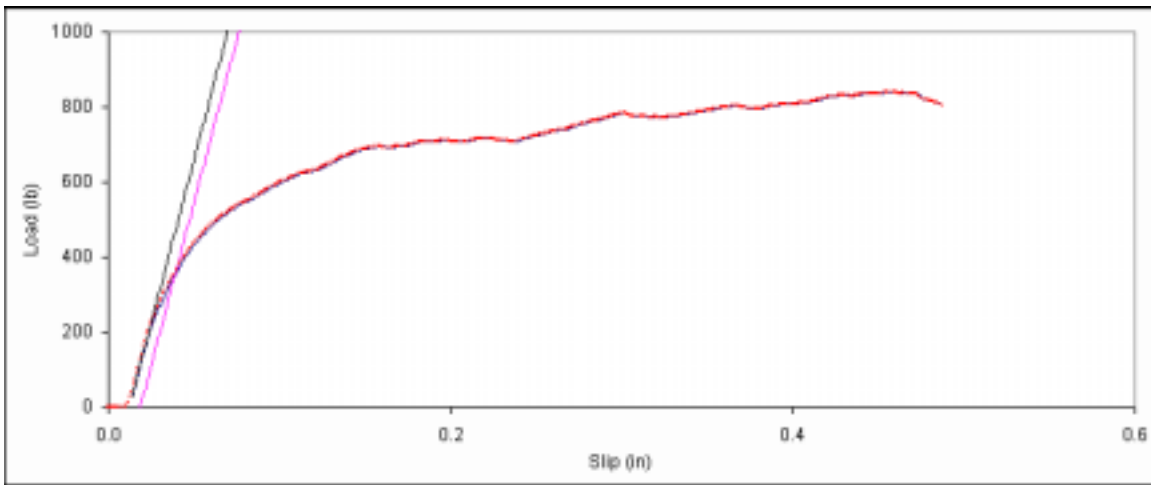


Figure D. 137: Bearing embedment plot for side member sample E-17.

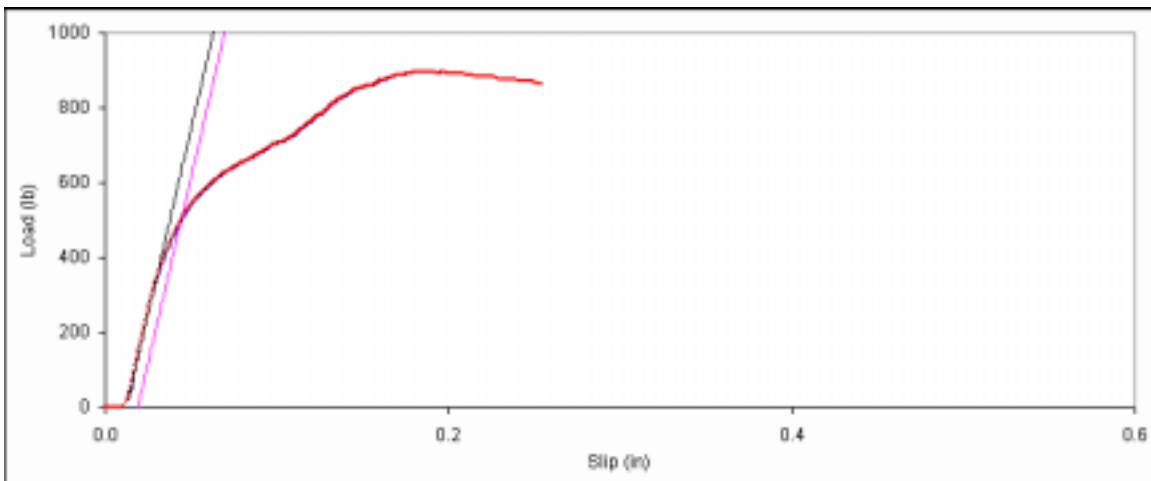


Figure D. 138: Bearing embedment plot for side member sample E-18.

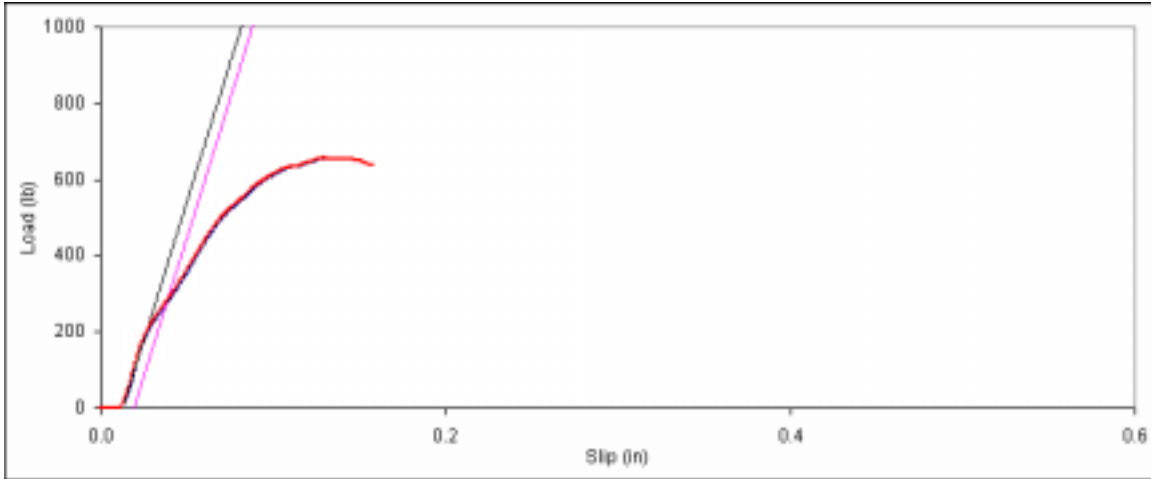


Figure D. 139: Bearing embedment plot for side member sample E-19.

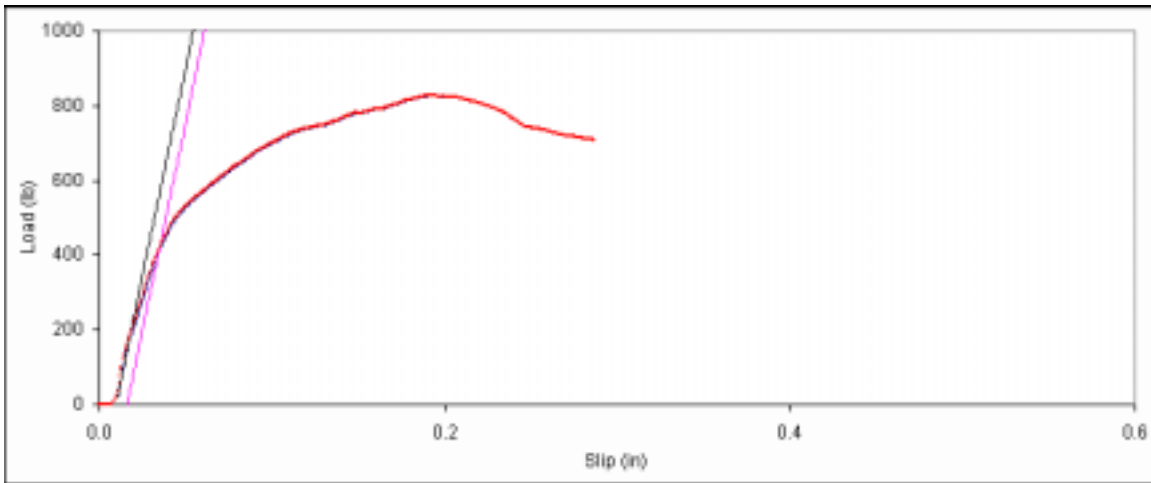


Figure D. 140: Bearing embedment plot for side member sample E-20.

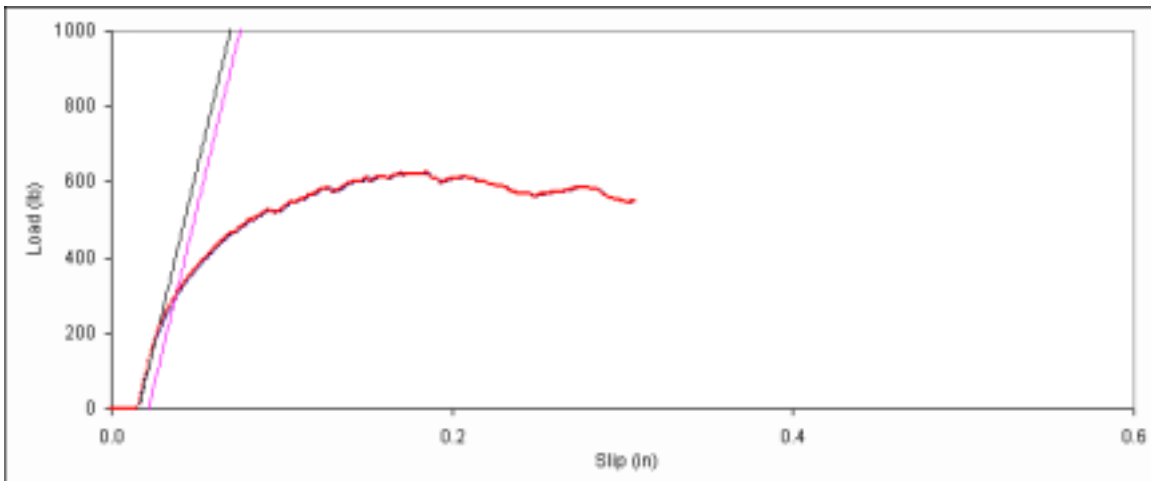


Figure D. 141: Bearing embedment plot for side member sample F-1.

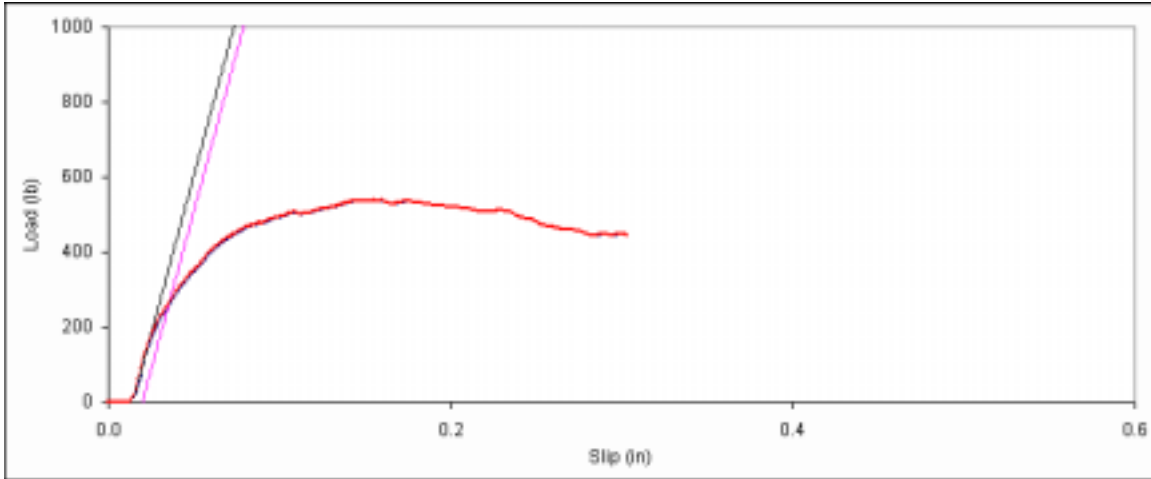


Figure D. 142: Bearing embedment plot for side member sample F-2.

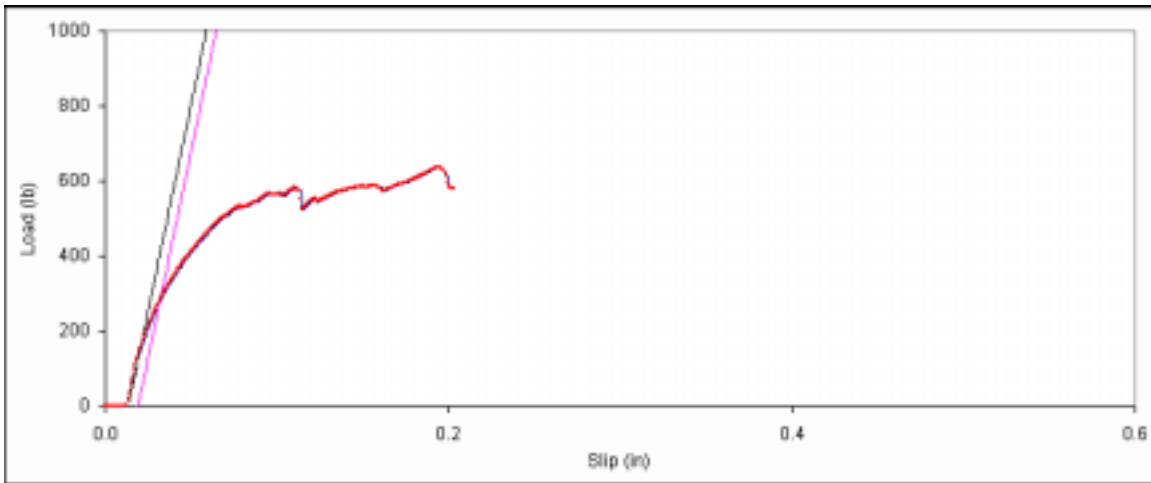


Figure D. 143: Bearing embedment plot for side member sample F-3.

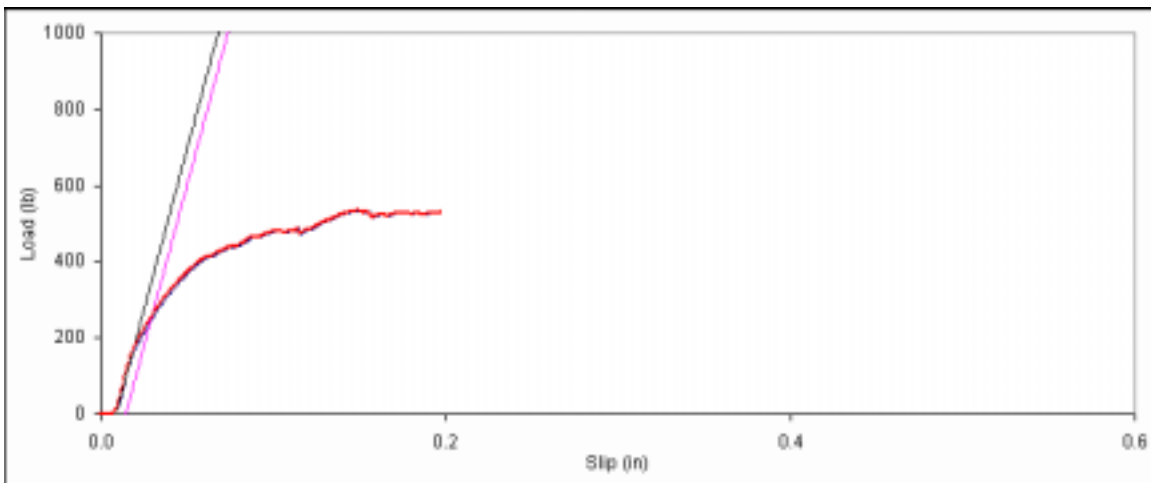


Figure D. 144: Bearing embedment plot for side member sample F-4.

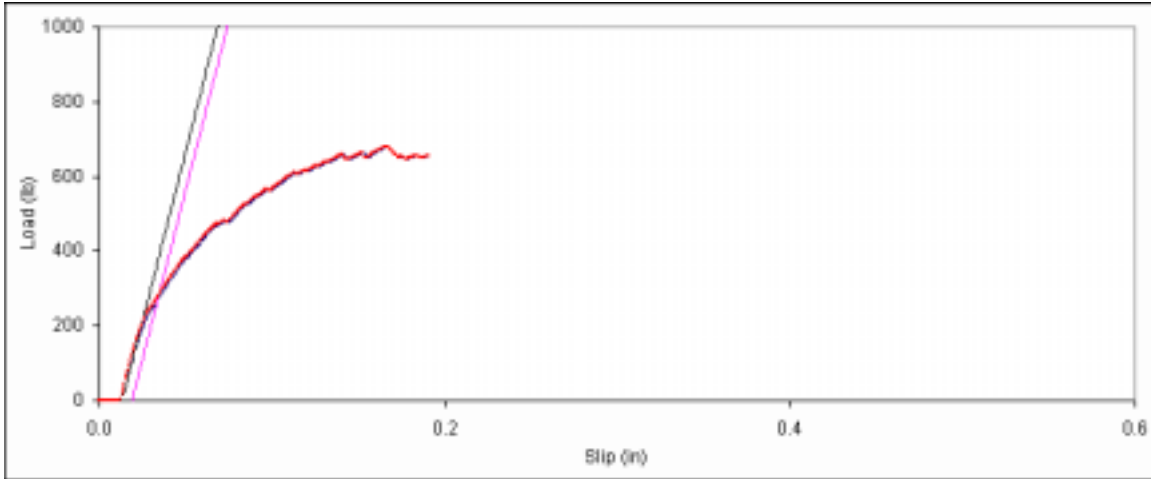


Figure D. 145: Bearing embedment plot for side member sample F-5.

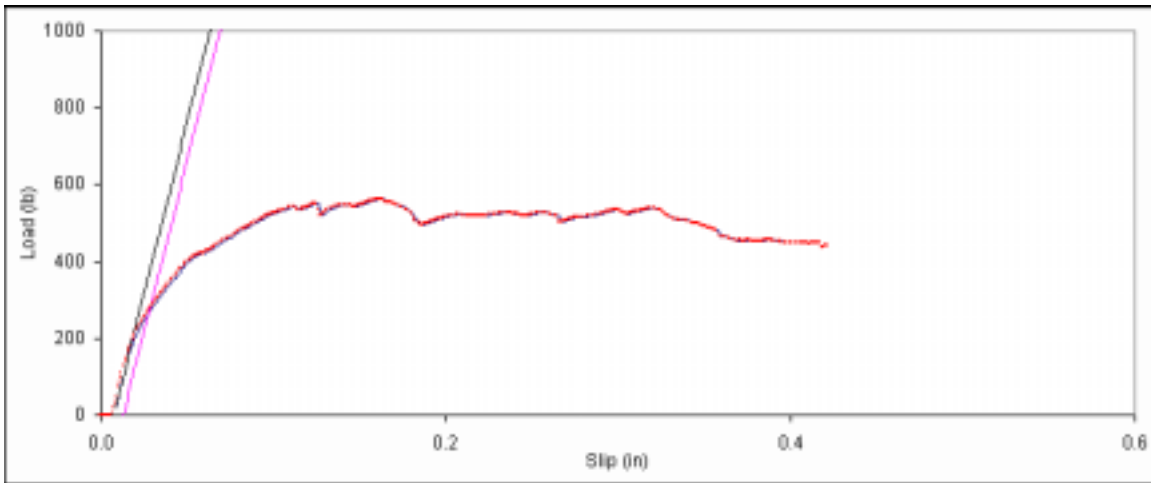


Figure D. 146: Bearing embedment plot for side member sample F-6.

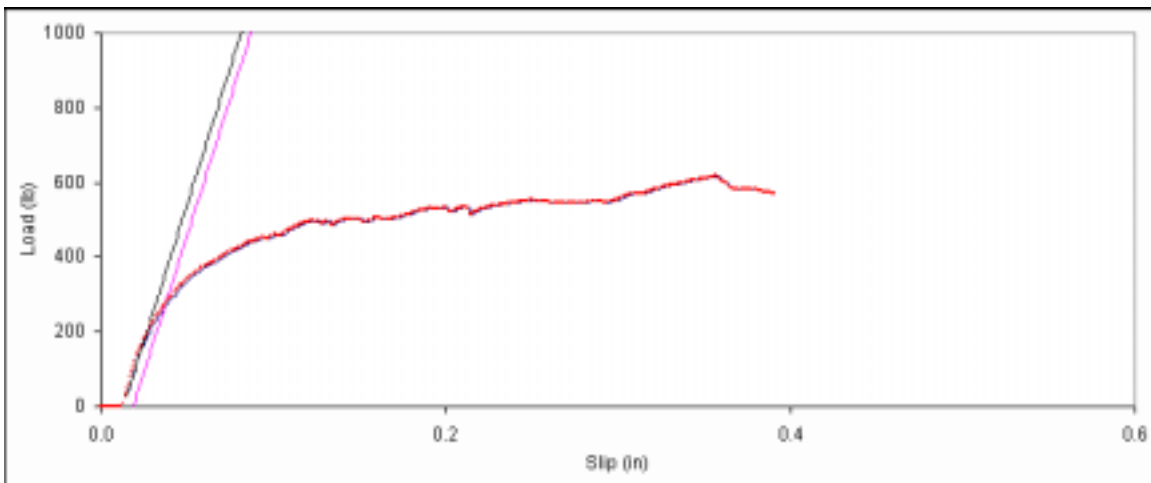


Figure D. 147: Bearing embedment plot for side member sample F-7.

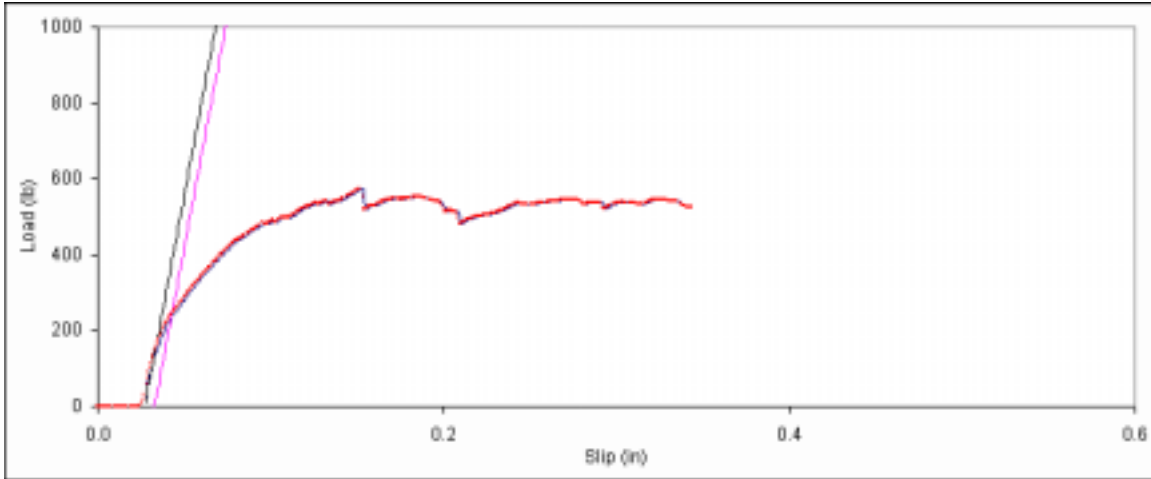


Figure D. 148: Bearing embedment plot for side member sample F-8.

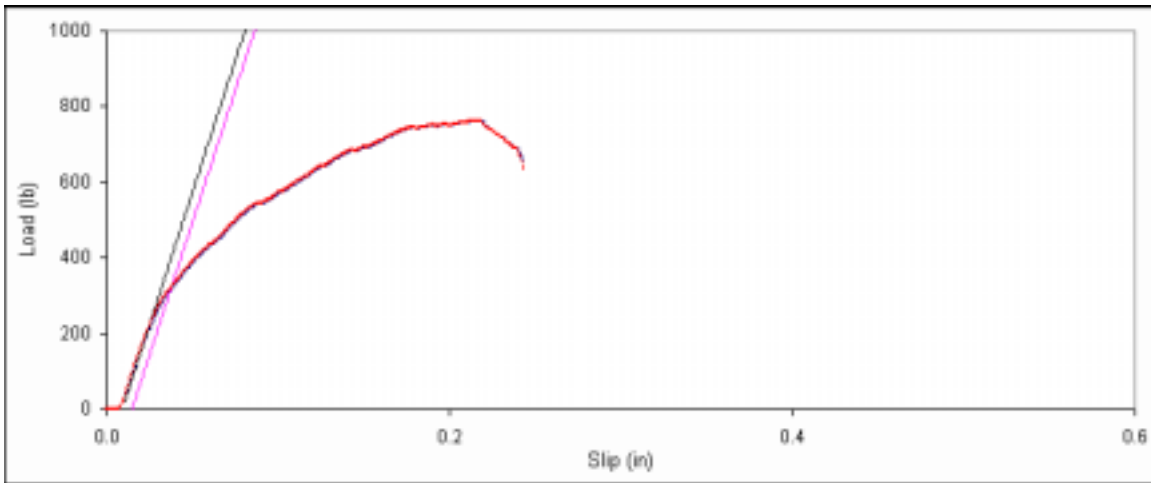


Figure D. 149: Bearing embedment plot for side member sample F-9.

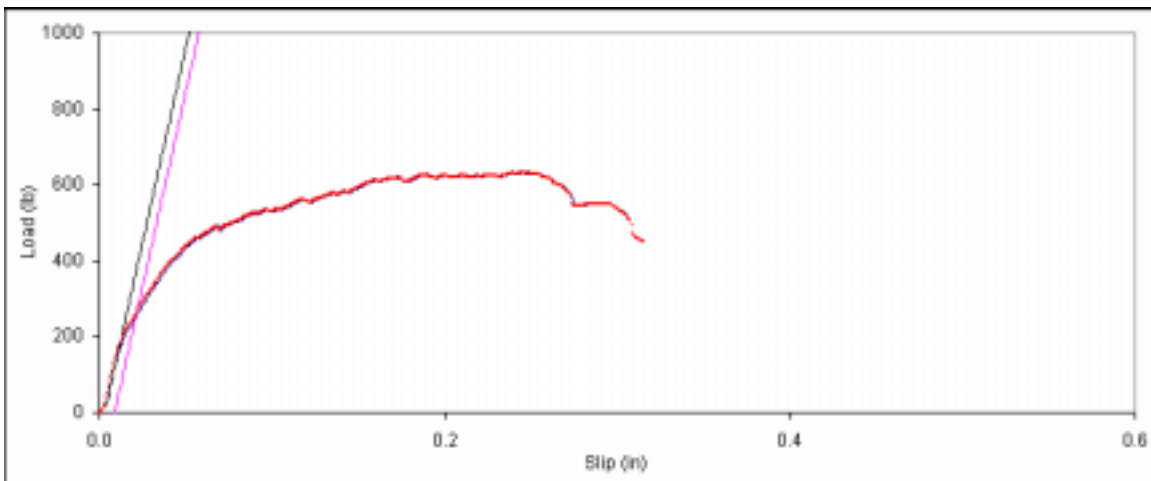


Figure D. 150: Bearing embedment plot for side member sample F-10.

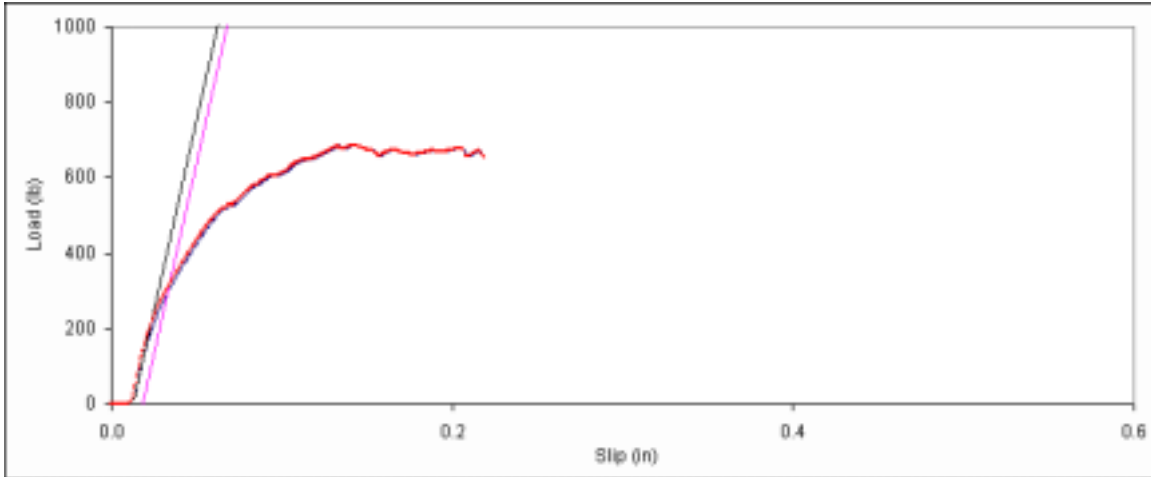


Figure D. 151: Bearing embedment plot for side member sample F-11.

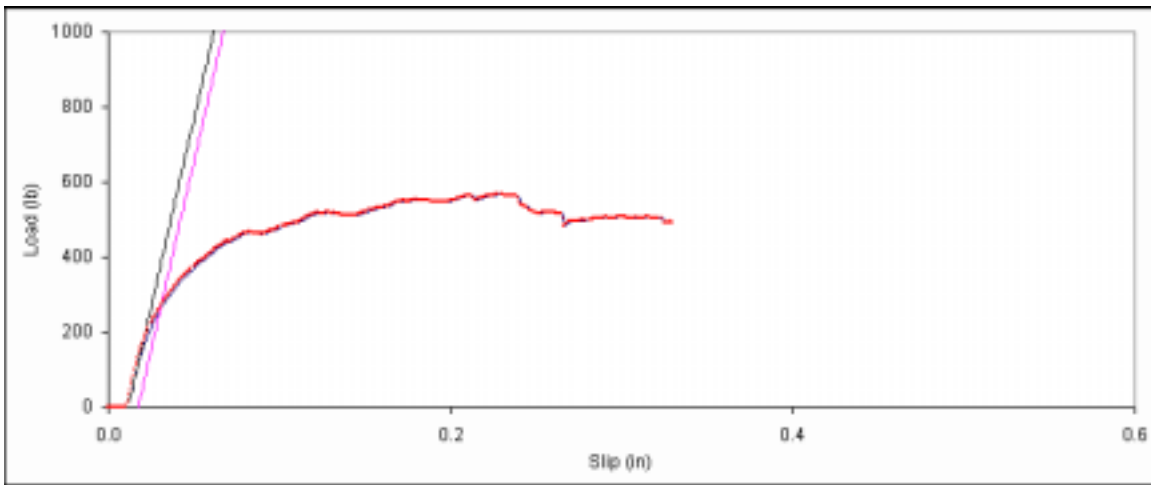


Figure D. 152: Bearing embedment plot for side member sample F-12.

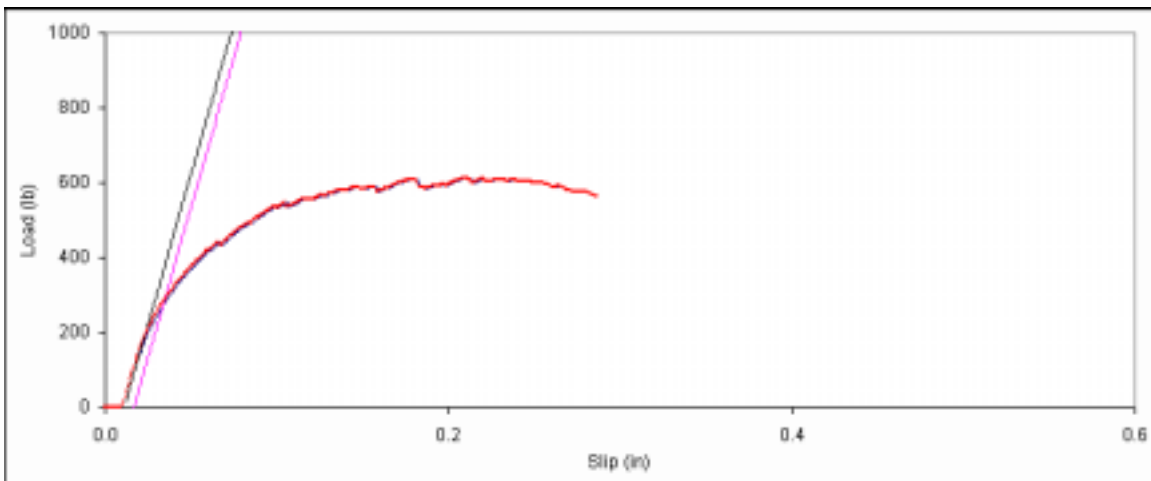


Figure D. 153: Bearing embedment plot for side member sample F-13.

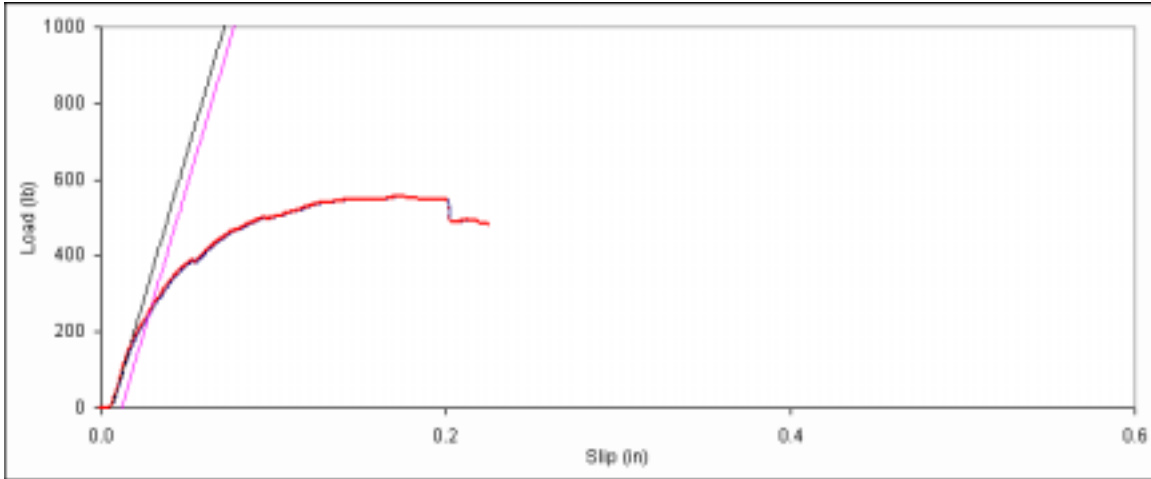


Figure D. 154: Bearing embedment plot for side member sample F-14.

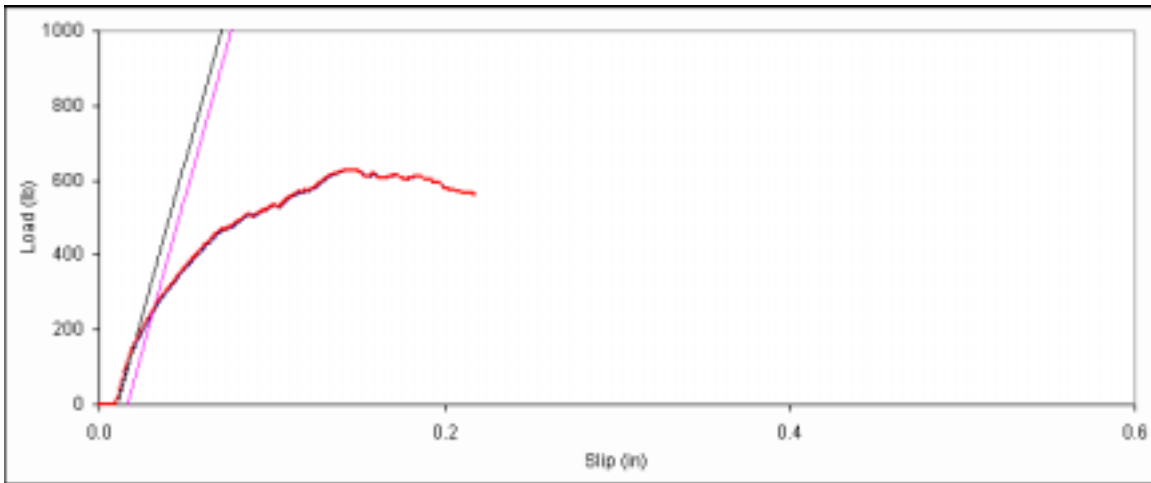


Figure D. 155: Bearing embedment plot for side member sample F-15.

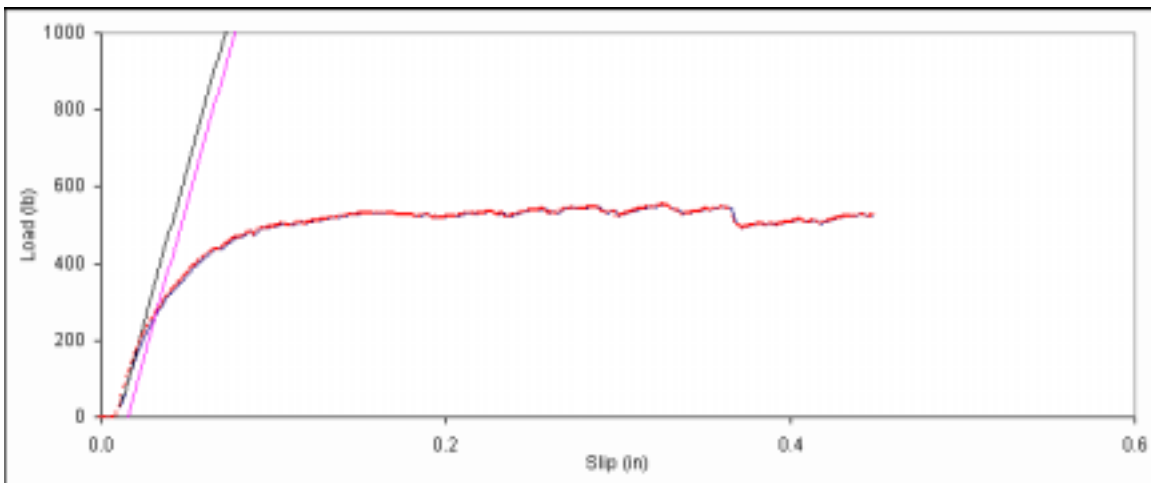


Figure D. 156: Bearing embedment plot for side member sample F-16.

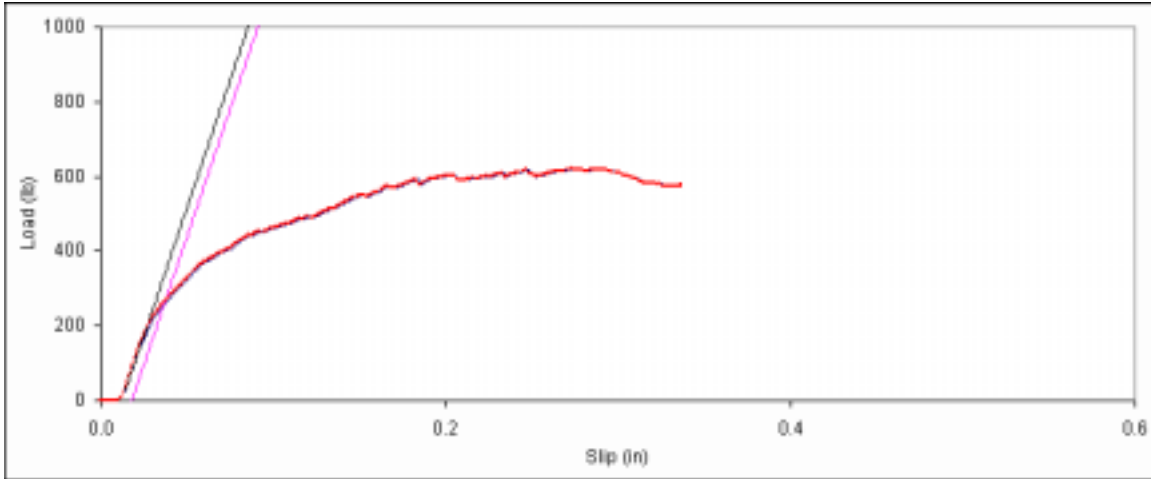


Figure D. 157: Bearing embedment plot for side member sample F-17.

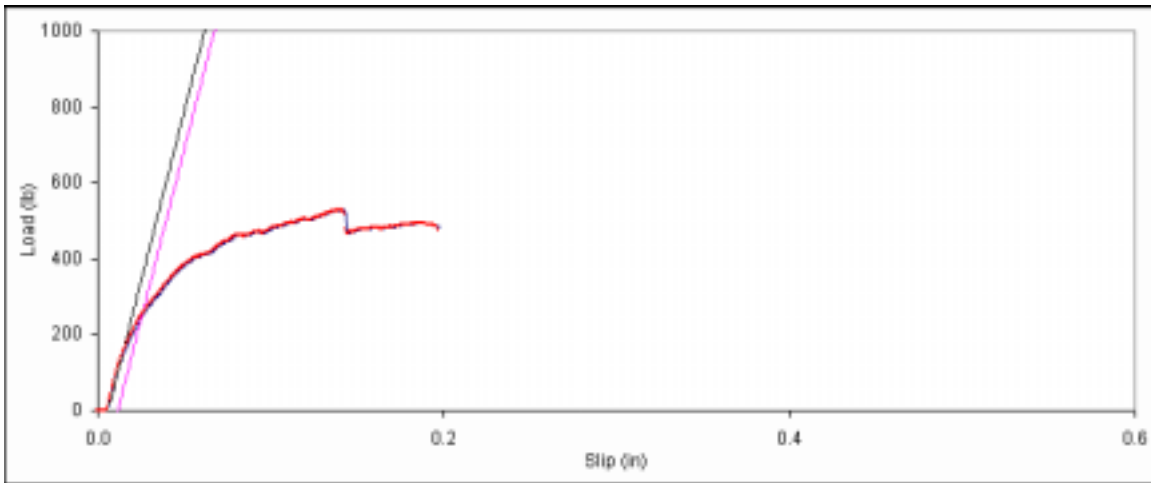


Figure D. 158: Bearing embedment plot for side member sample F-18.

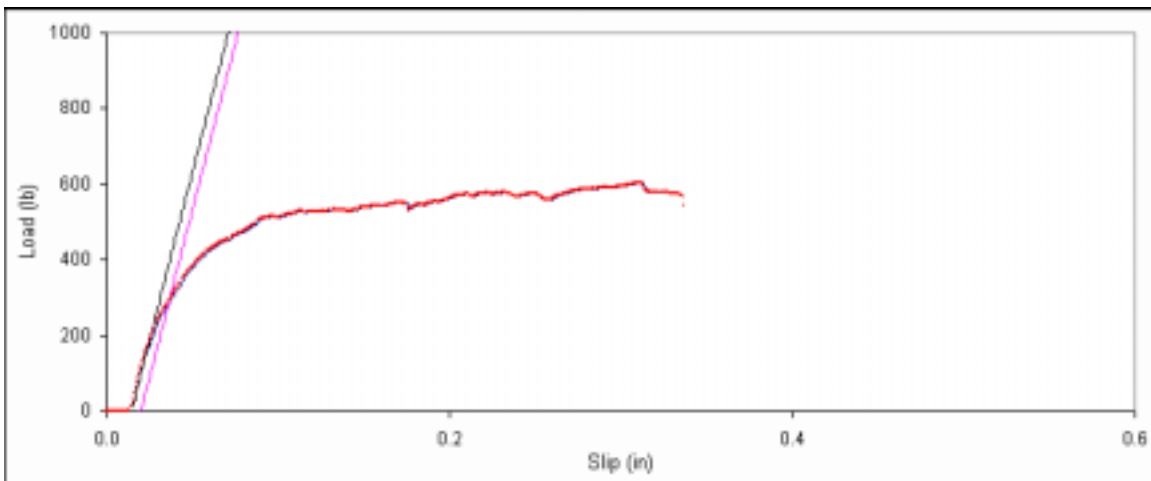


Figure D. 159: Bearing embedment plot for side member sample F-19.

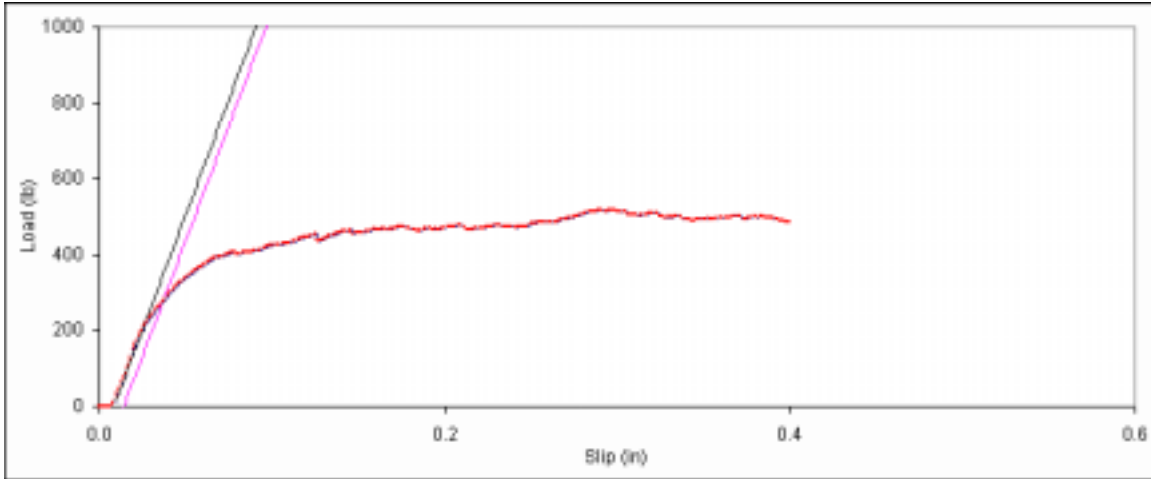


Figure D. 160: Bearing embedment plot for side member sample F-20.

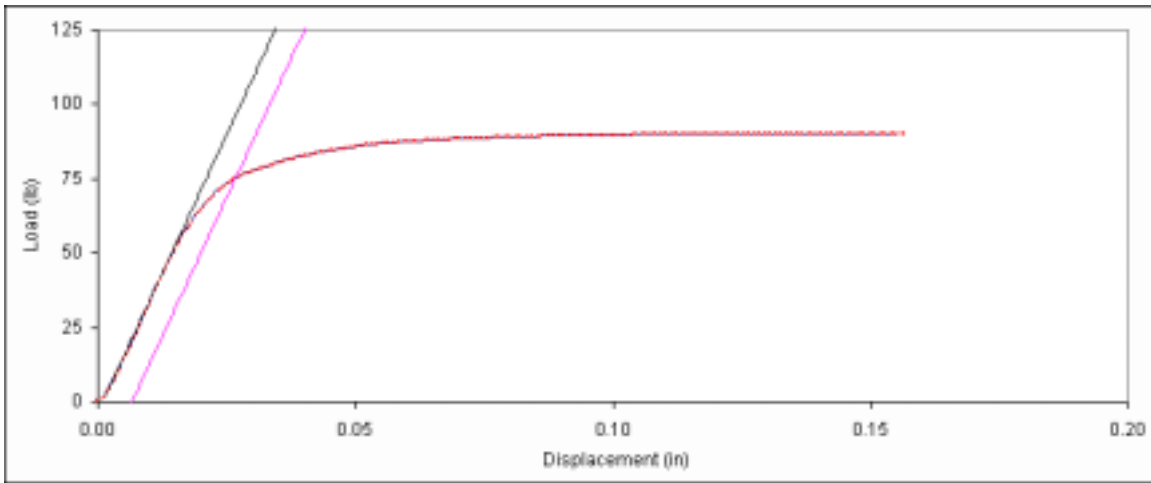


Figure D. 161: Bearing embedment plot for fastener sample 6d-1.

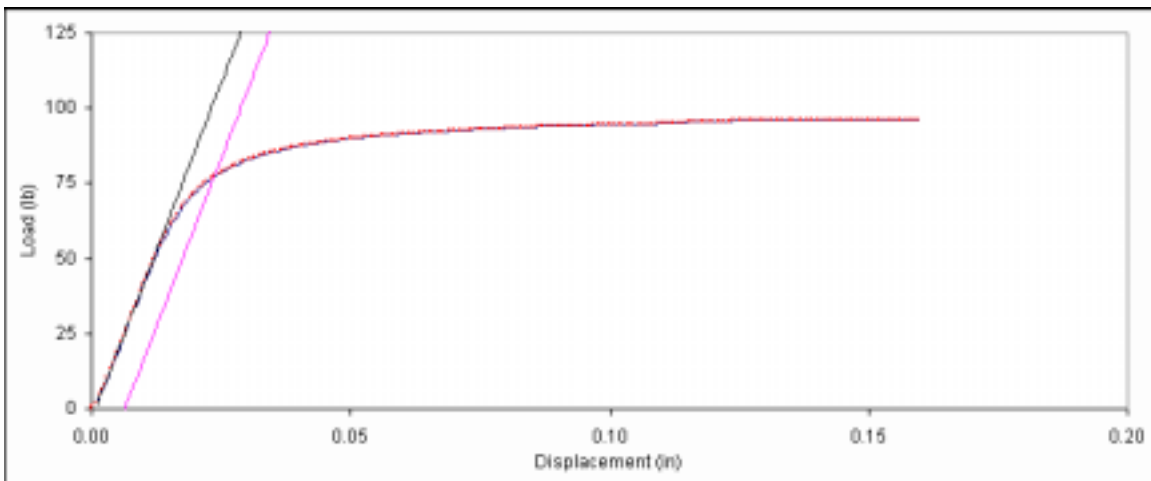


Figure D. 162: Bearing embedment plot for fastener sample 6d-2.

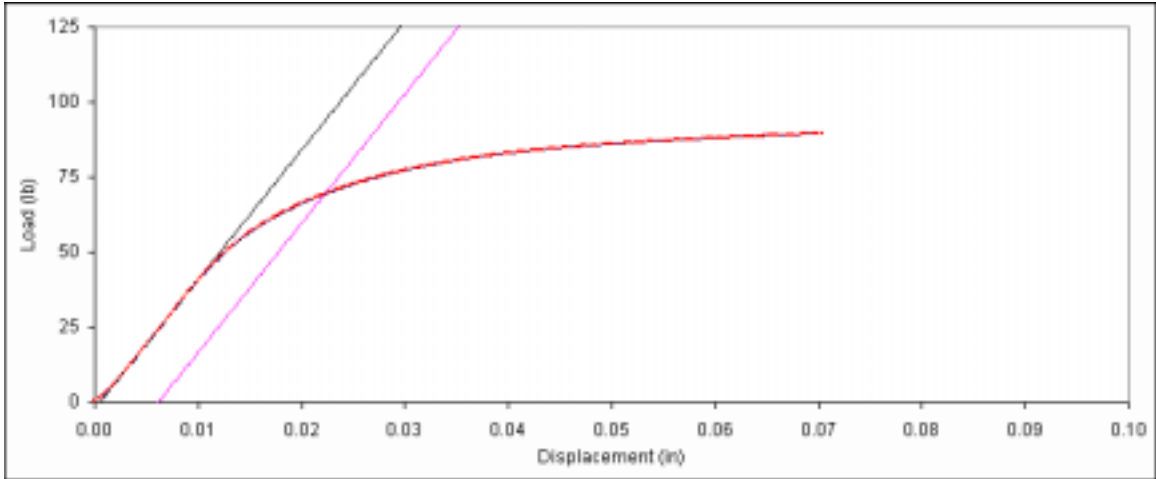


Figure D. 163: Bearing embedment plot for fastener sample 6d-3.

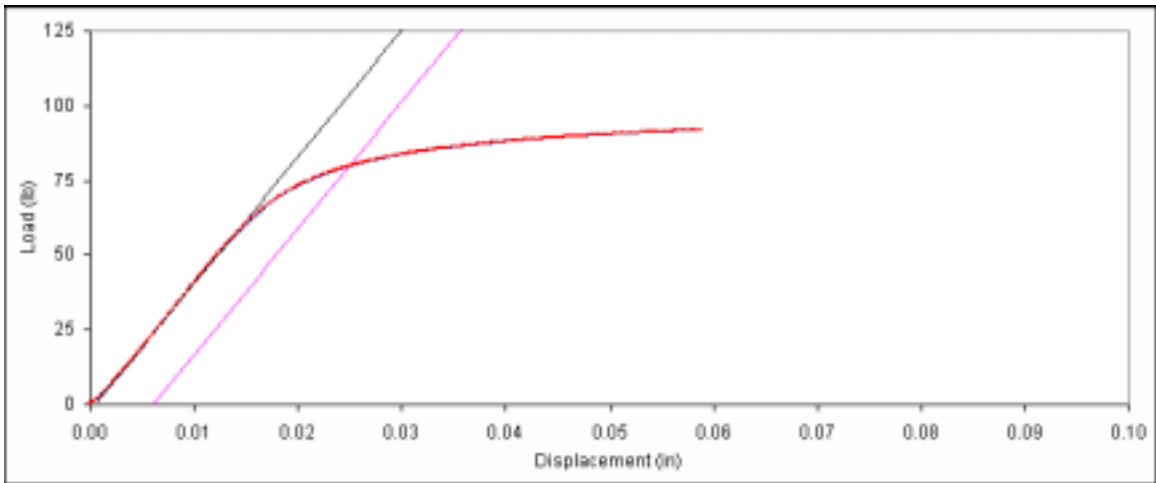


Figure D. 164: Bearing embedment plot for fastener sample 6d-4.

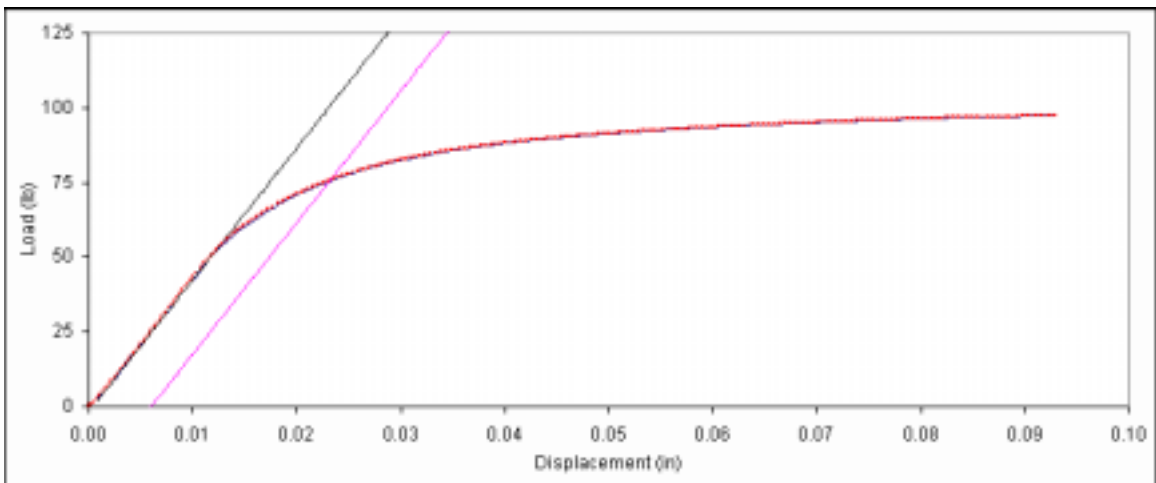


Figure D. 165: Bearing embedment plot for fastener sample 6d-5.

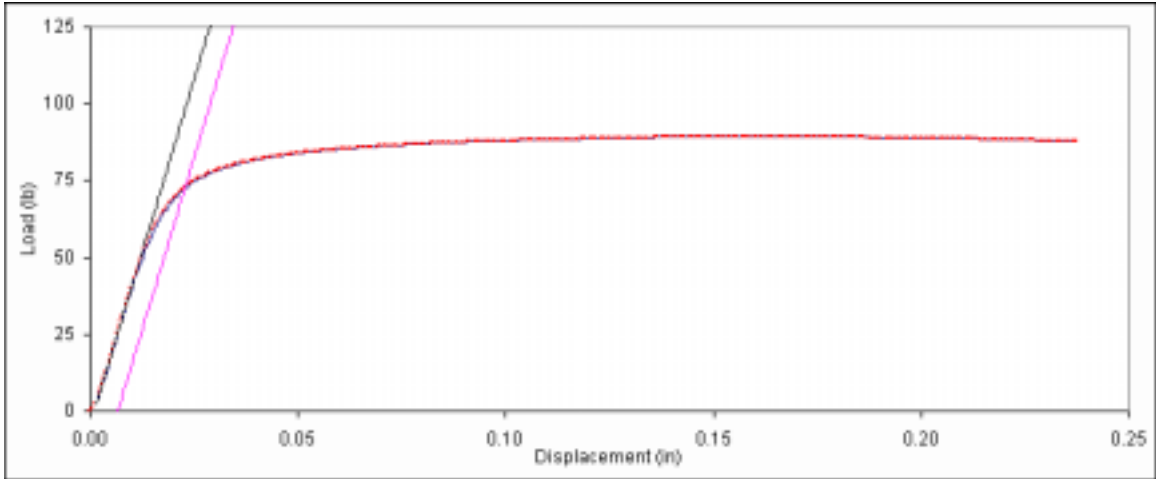


Figure D. 166: Bearing embedment plot for fastener sample 6d-6.

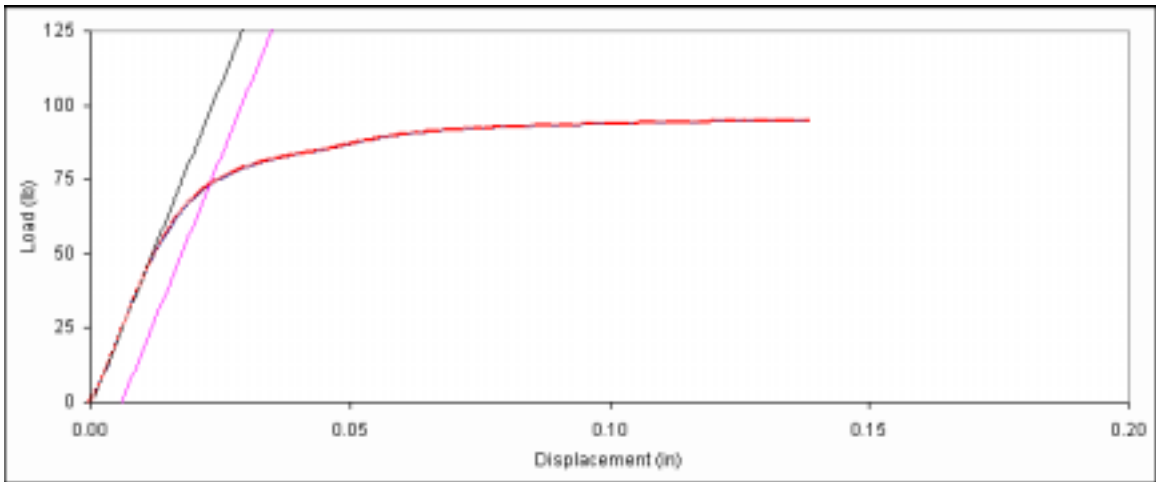


Figure D. 167: Bearing embedment plot for fastener sample 6d-7.

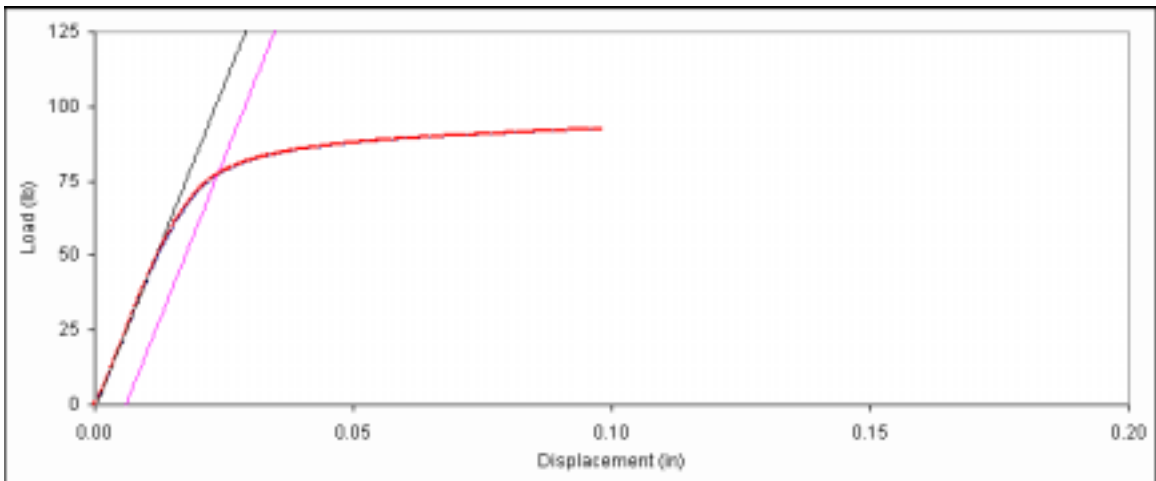


Figure D. 168: Bearing embedment plot for fastener sample 6d-8.

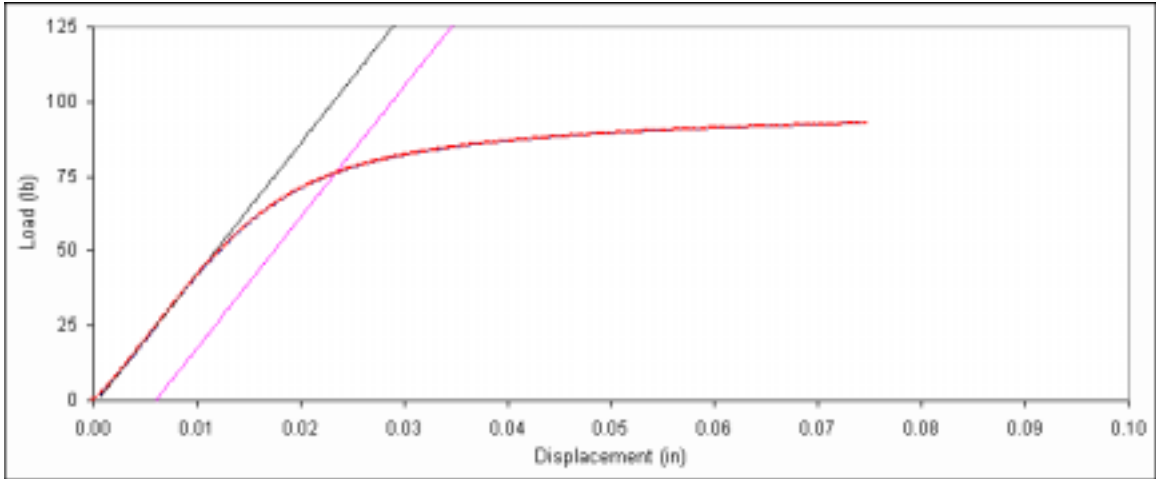


Figure D. 169: Bearing embedment plot for fastener sample 6d-9.

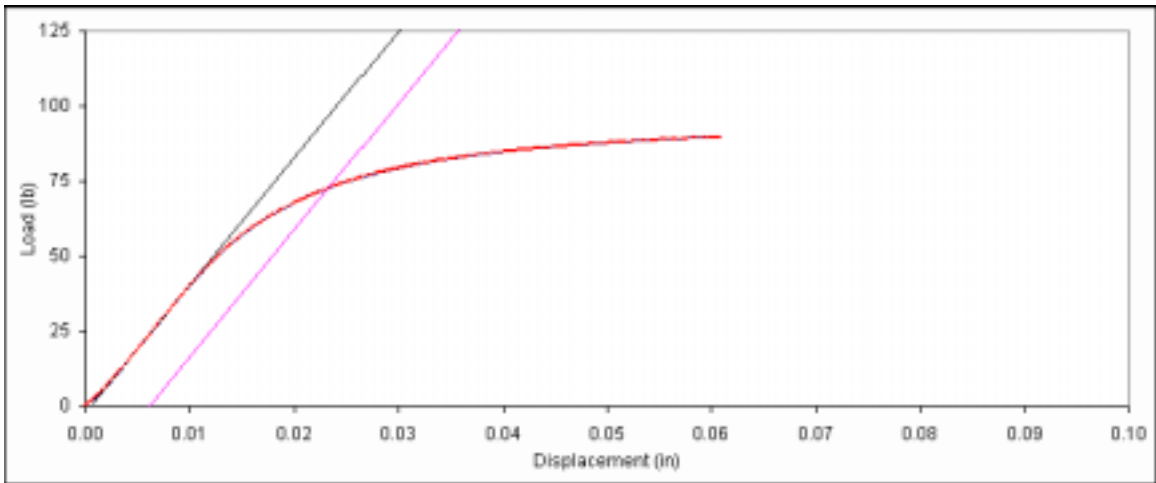


Figure D. 170: Bearing embedment plot for fastener sample 6d-10.

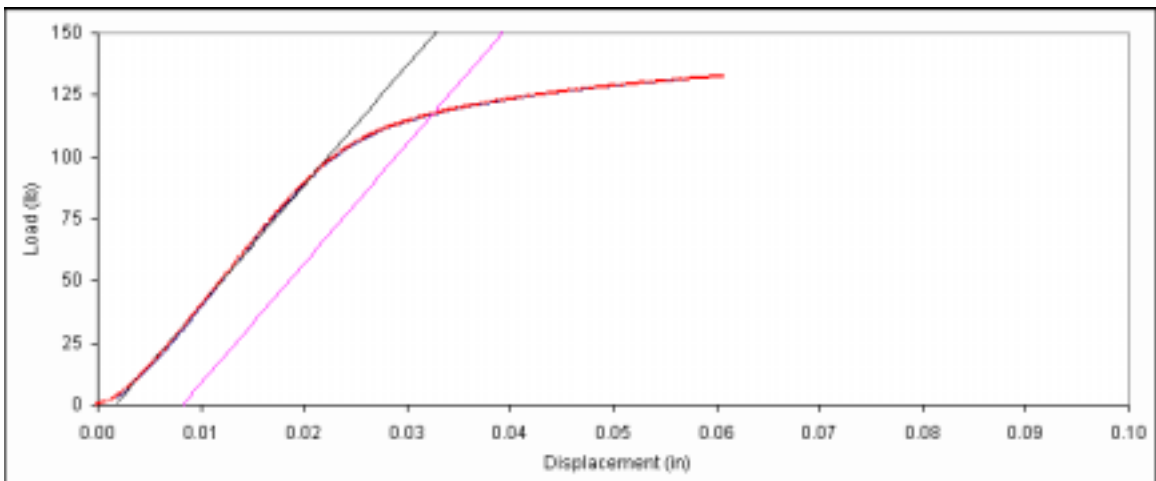


Figure D. 171: Bearing embedment plot for fastener sample 8d-1.

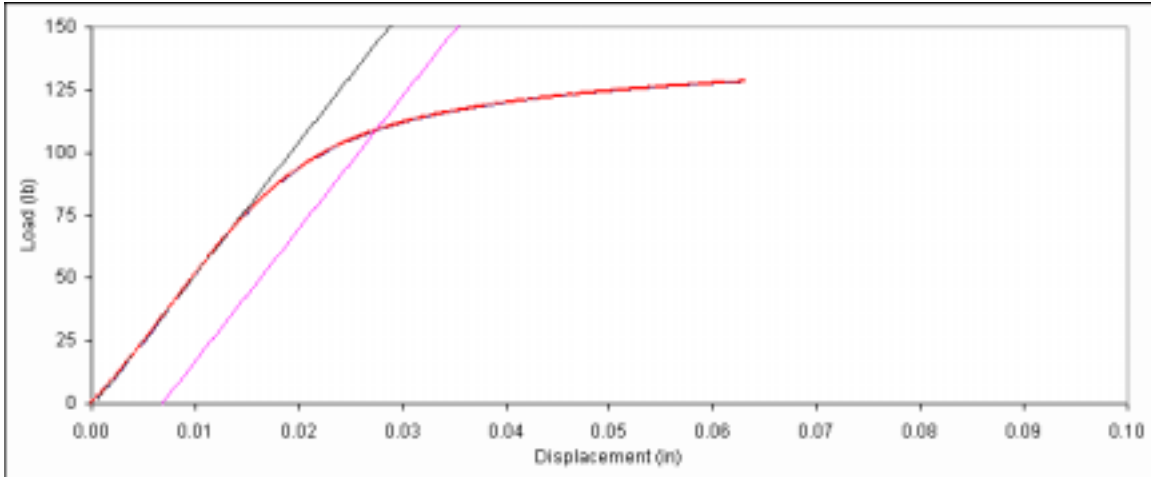


Figure D. 172: Bearing embedment plot for fastener sample 8d-2.

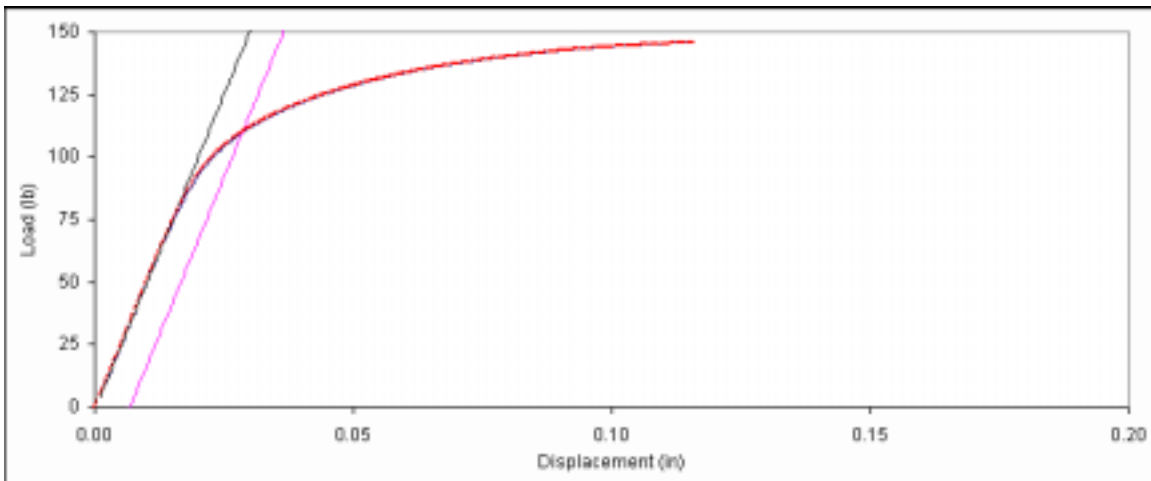


Figure D. 173: Bearing embedment plot for fastener sample 8d-3.

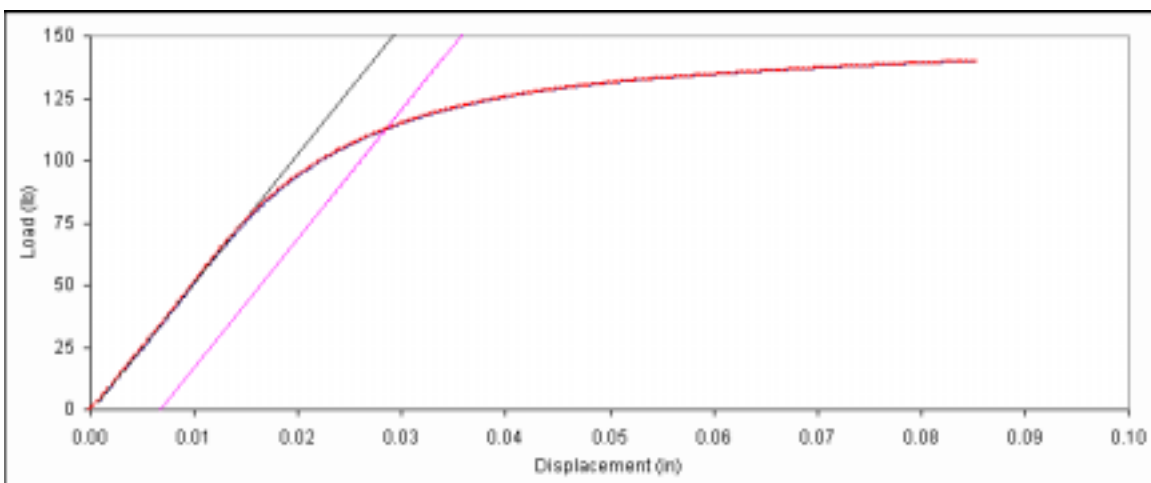


Figure D. 174: Bearing embedment plot for fastener sample 8d-4.

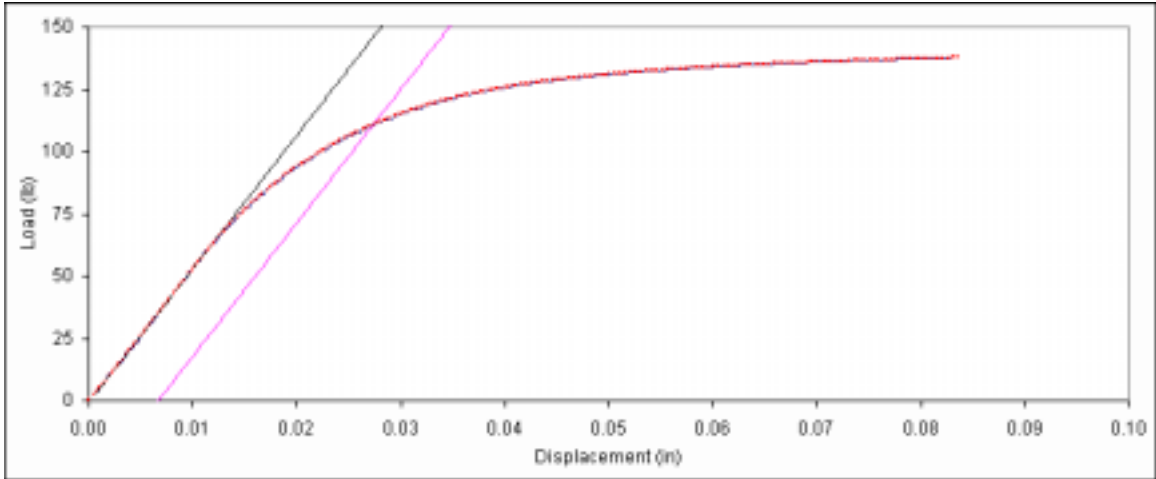


Figure D. 175: Bearing embedment plot for fastener sample 8d-5.

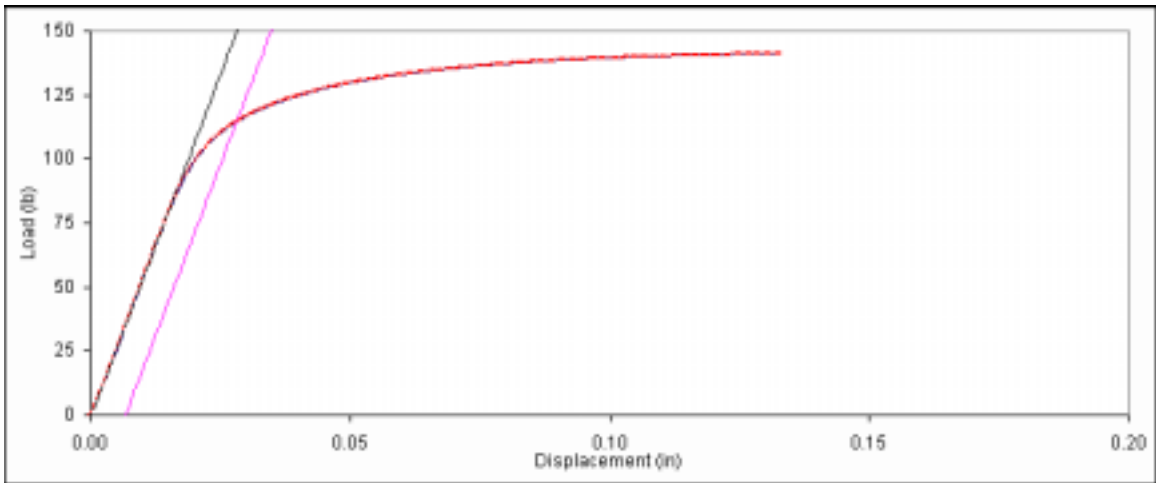


Figure D. 176: Bearing embedment plot for fastener sample 8d-6.

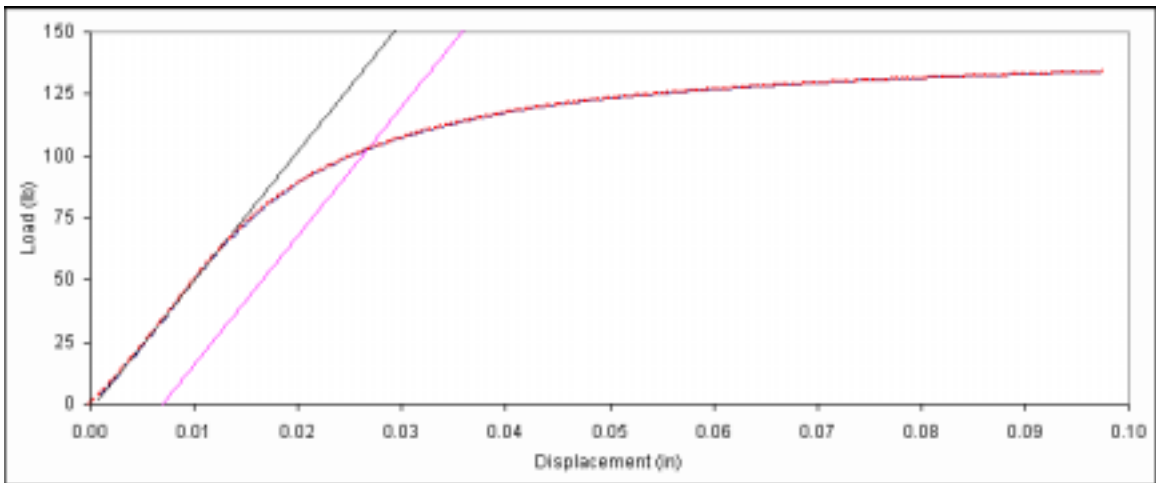


Figure D. 177: Bearing embedment plot for fastener sample 8d-7.

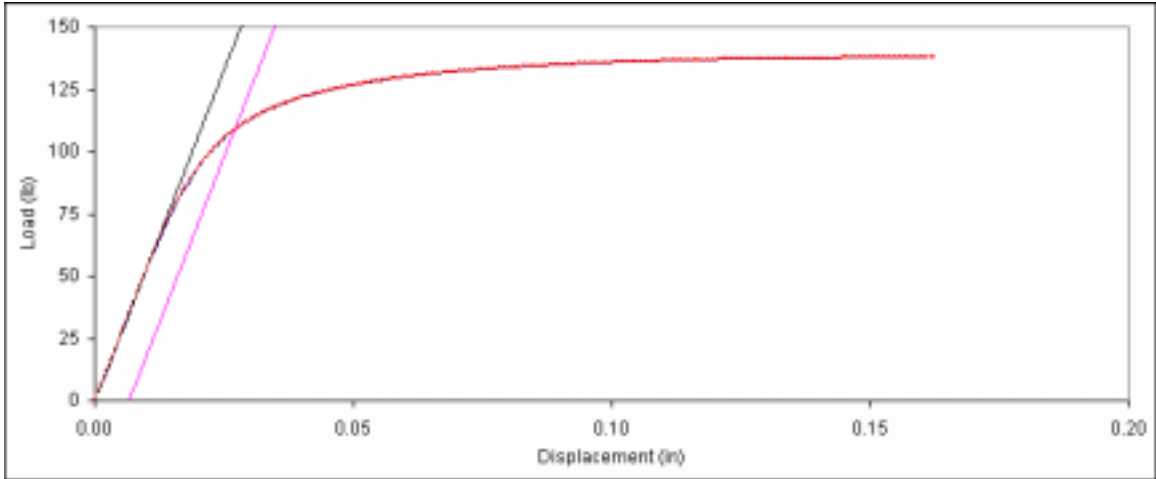


Figure D. 178: Bearing embedment plot for fastener sample 8d-8.

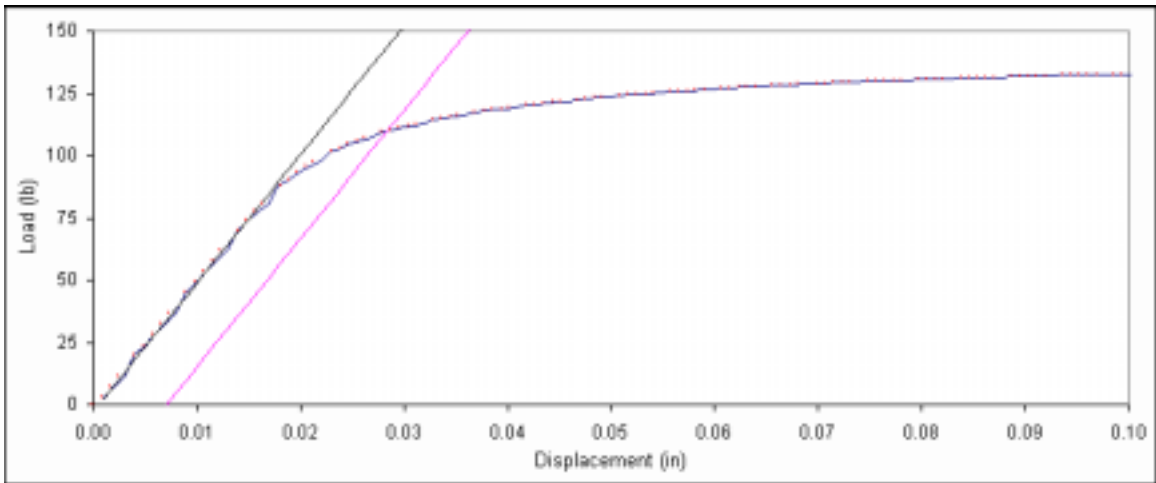


Figure D. 179: Bearing embedment plot for fastener sample 8d-9.

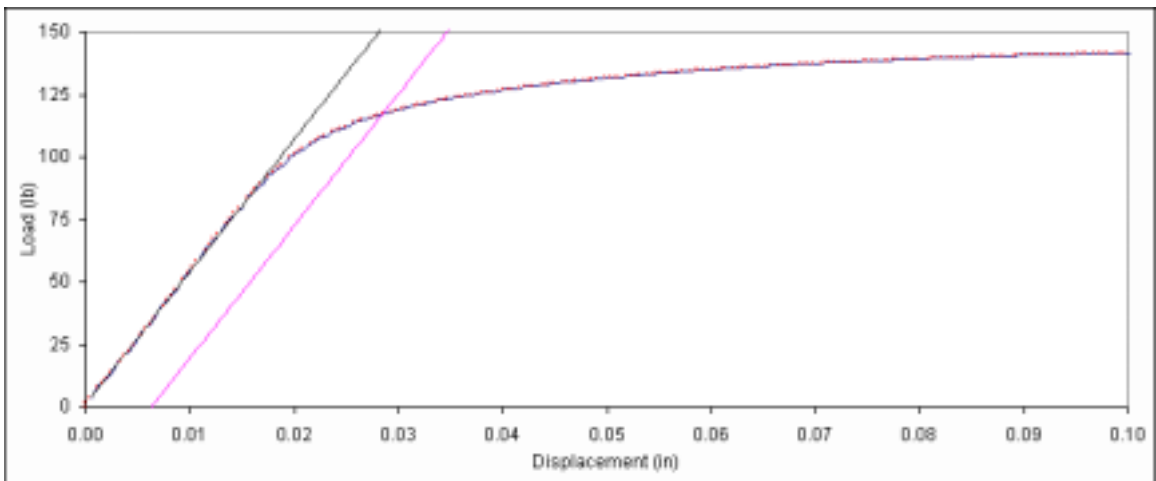


Figure D. 180: Bearing embedment plot for fastener sample 8d-10.