

Appendix C

Data and Figures from the Mathematical Model

C.1 Coefficients from Model 4

Coefficients from the Follow-Up Tests								
Ropes	a ₀	a ₁	a ₂	a ₃	a ₄	a ₅	a ₆	r ²
Am Blue - Precycled	-0.554	0.245	5.449	0.101	-7.767	-0.013	2.193	0.845
Am Blue - New	-0.889	0.418	6.361	0.012	-10.046	-0.003	3.968	0.737
Am II - Precycled	-0.806	0.380	5.409	0.167	-6.576	-0.028	1.188	0.890
Am II - New	-0.841	1.165	5.796	-0.180	-9.640	0.010	3.750	0.837

Coefficients from Amsteel Blue Ropes								
Ropes	a ₀	a ₁	a ₂	a ₃	a ₄	a ₅	a ₆	r ²
Am Blue - Precycled	-0.997	0.021	2.070	0.151	0.221	-0.015	-1.293	0.597
Am Blue - New	-1.104	0.350	2.411	0.031	-0.608	-0.005	-0.892	0.550

Sequences	a ₀	a ₁	a ₂	a ₃	a ₄	a ₅	a ₆	r ²
A - 56" - Precycled	0.251	0.143	6.065	0.043	-1.650	-0.007	-2.648	0.924
B - 44" - Precycled	-0.389	-0.151	1.815	0.217	1.484	-0.025	-2.939	0.736
D - 20" - Precycled	-0.142	0.056	3.420	0.106	1.026	-0.019	-6.959	0.906
E - 8" - Precycled	-0.178	-0.174	3.255	0.283	-0.151	-0.054	-9.323	0.912
AA - 56" - New	0.330	0.394	4.250	-0.058	2.895	0.001	-5.221	0.905
BB - 44" - New	-0.083	0.095	4.872	0.057	0.279	-0.008	-4.867	0.905
DD - 20" - New	-0.132	0.804	2.760	-0.217	0.190	0.014	-6.543	0.810
EE - 8" - New	-0.502	0.020	1.916	0.172	0.579	-0.032	-5.132	0.790

Coefficients from Amsteel II Ropes								
Ropes	a ₀	a ₁	a ₂	a ₃	a ₄	a ₅	a ₆	r ²
Am II - Precycled	-1.142	-0.008	5.361	0.281	-6.783	-0.033	2.245	0.864
Am II - New	-0.860	-0.388	5.100	0.448	-6.670	-0.054	2.271	0.862

Sequences	a ₀	a ₁	a ₂	a ₃	a ₄	a ₅	a ₆	r ²
F - 56" - Precycled	0.511	0.394	6.052	-0.056	1.836	0.001	-6.237	0.959
G - 44" - Precycled	0.166	-0.979	6.666	0.644	-4.430	-0.081	-1.623	0.953
H - 32" - Precycled	0.482	-0.364	5.144	0.333	0.775	-0.050	-8.380	0.961
I - 20" - Precycled	0.106	-0.468	6.080	0.563	-6.929	-0.106	-3.199	0.957
J - 8" - Precycled	-0.202	-0.107	4.213	0.336	-2.264	-0.071	-19.296	0.952
FF - 56" - New	0.143	0.110	5.473	0.073	3.930	-0.011	-7.348	0.957
GG - 44" - New	0.704	-0.338	5.847	0.280	0.199	-0.038	-6.358	0.968
HH - 32" - New	-0.364	-0.064	4.909	0.109	4.186	-0.008	-10.707	0.964
II - 20" - New	0.128	0.118	4.790	0.136	1.437	-0.035	-13.100	0.953
JJ - 8" - New	0.052	-0.264	4.829	0.577	-8.811	-0.157	-10.379	0.957

Table C.1.1: Results from Model 4 for the Follow-Up Tests and New Tests

C.2 Load vs. Displacement and Load vs. Velocity Plots for the Follow-Up Tests – Model 4

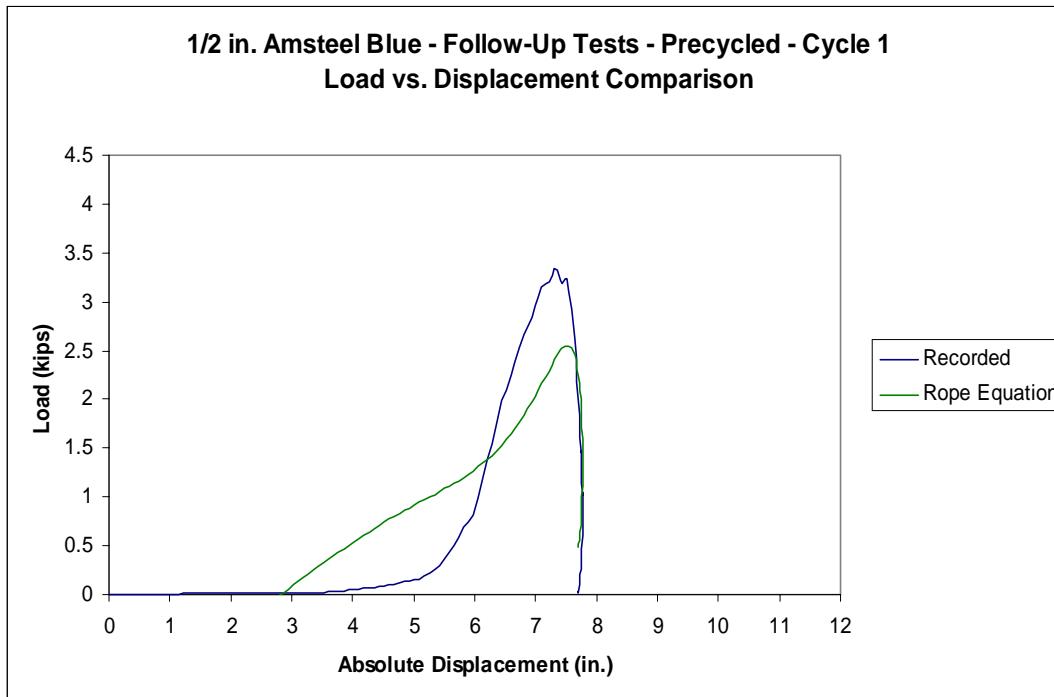


Figure C.2.1: Load vs. Displacement – Amsteel Blue – Follow-Up Tests – Precycled – Cycle 1

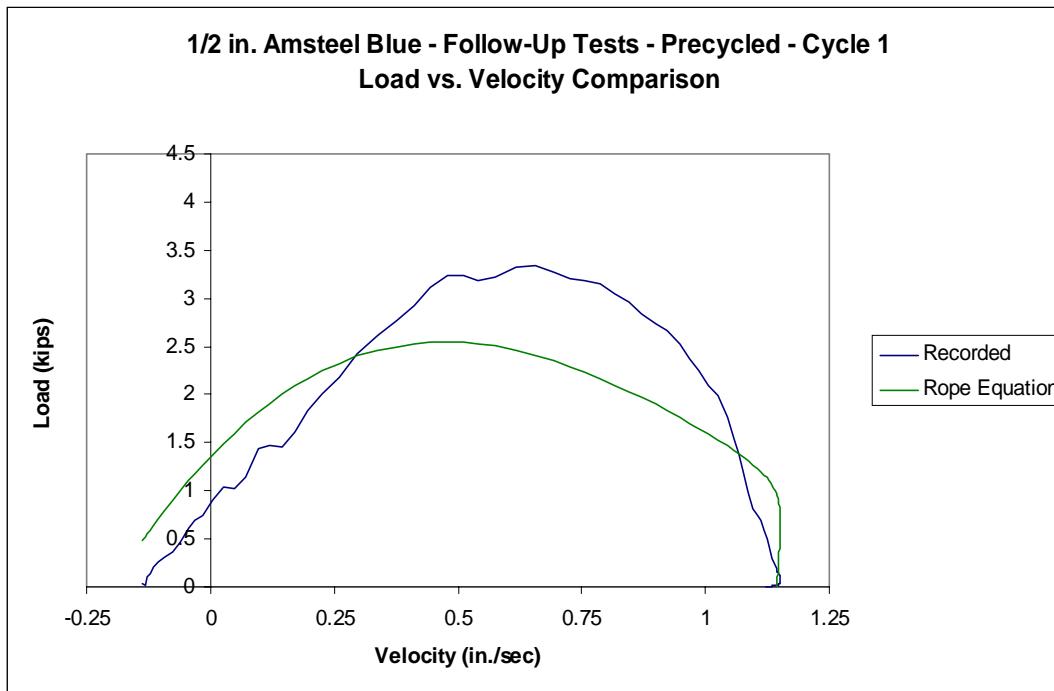


Figure C.2.2: Load vs. Velocity – Amsteel Blue – Follow-Up Tests – Precycled – Cycle 1

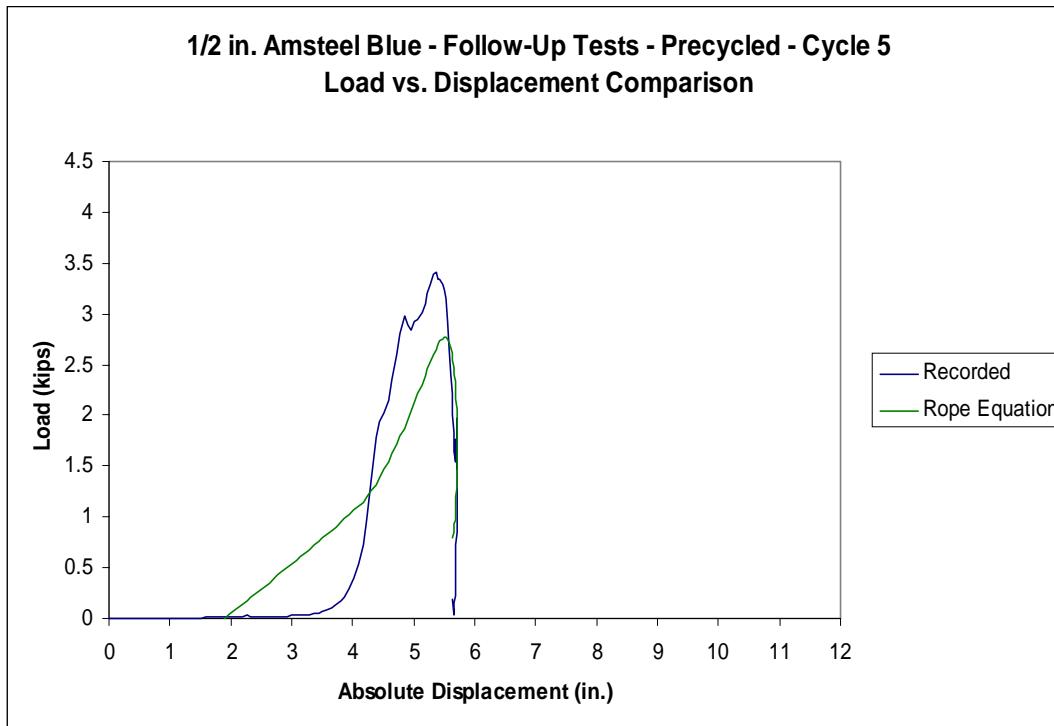


Figure C.2.3: Load vs. Displacement – Amsteel Blue – Follow-Up Tests – Precycled – Cycle 5

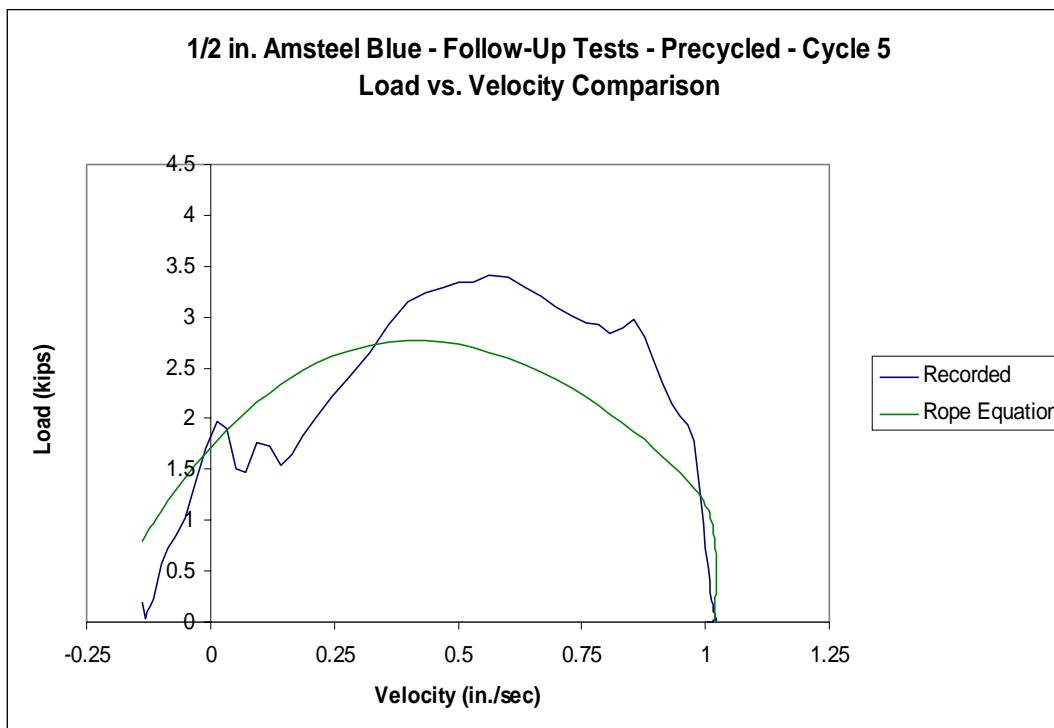


Figure C.2.4: Load vs. Velocity – Amsteel Blue – Follow-Up Tests – Precycled – Cycle 5

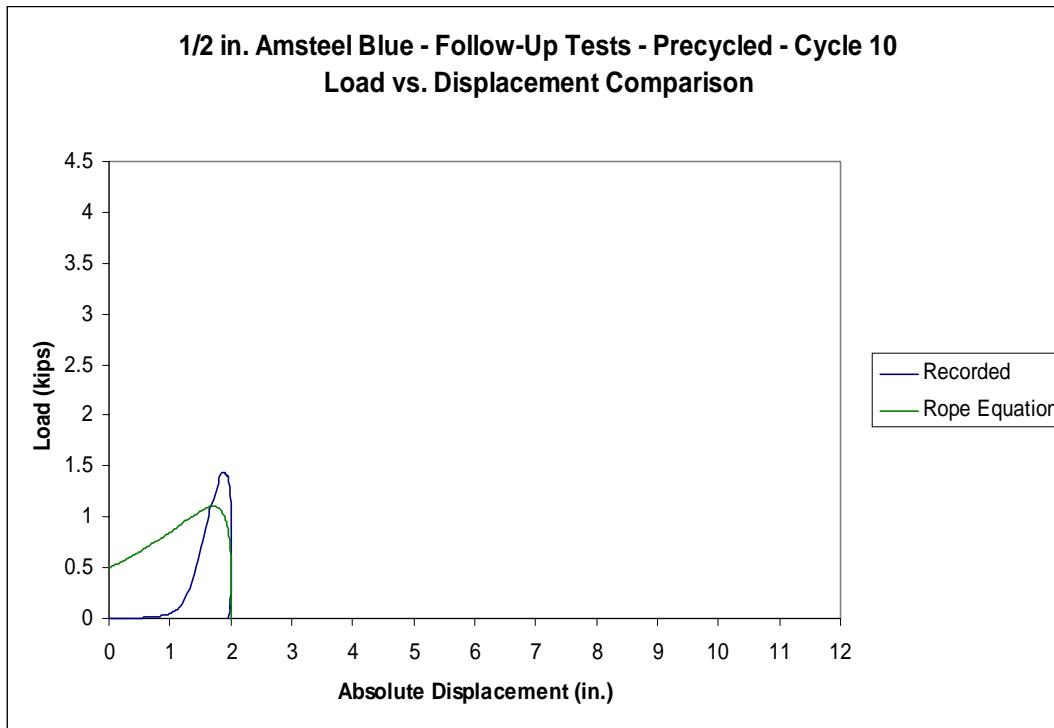


Figure C.2.5: Load vs. Displacement – Amsteel Blue – Follow-Up Tests – Precycled – Cycle 10

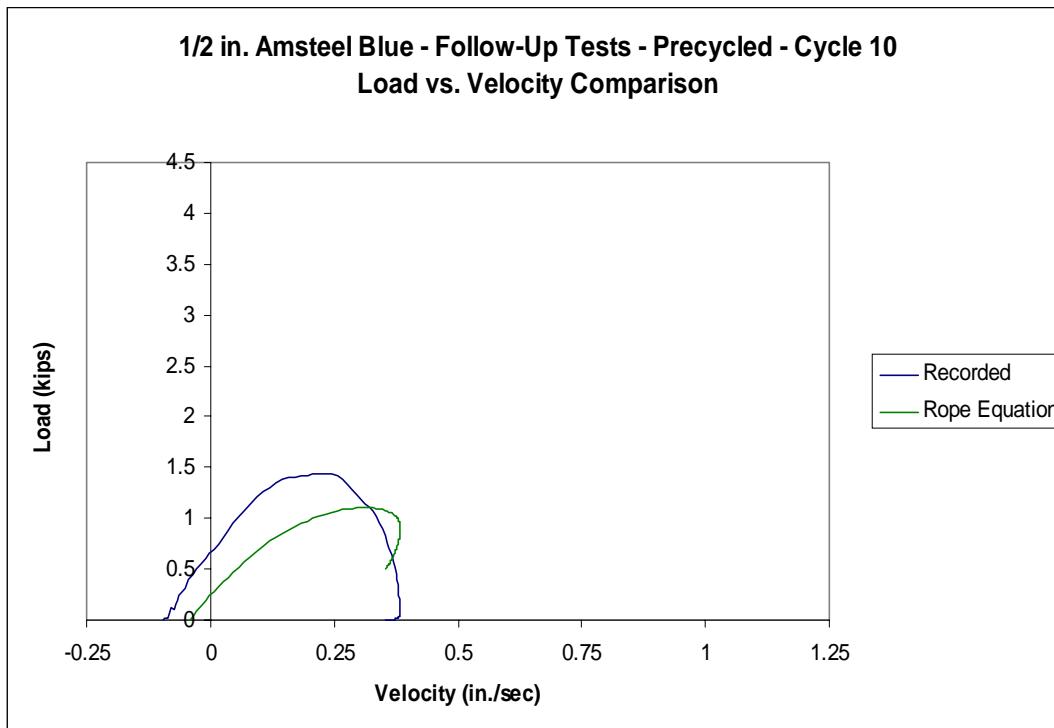


Figure C.2.6: Load vs. Velocity – Amsteel Blue – Follow-Up Tests – Precycled – Cycle 10

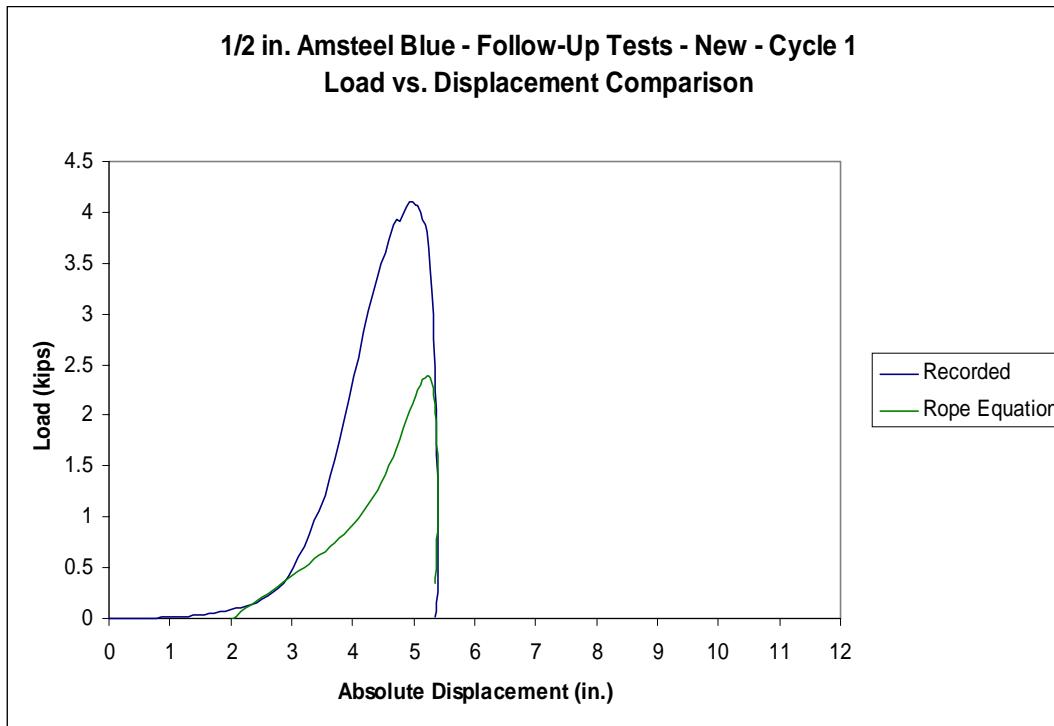


Figure C.2.7: Load vs. Displacement – Amsteel Blue – Follow-Up Tests – New – Cycle 1

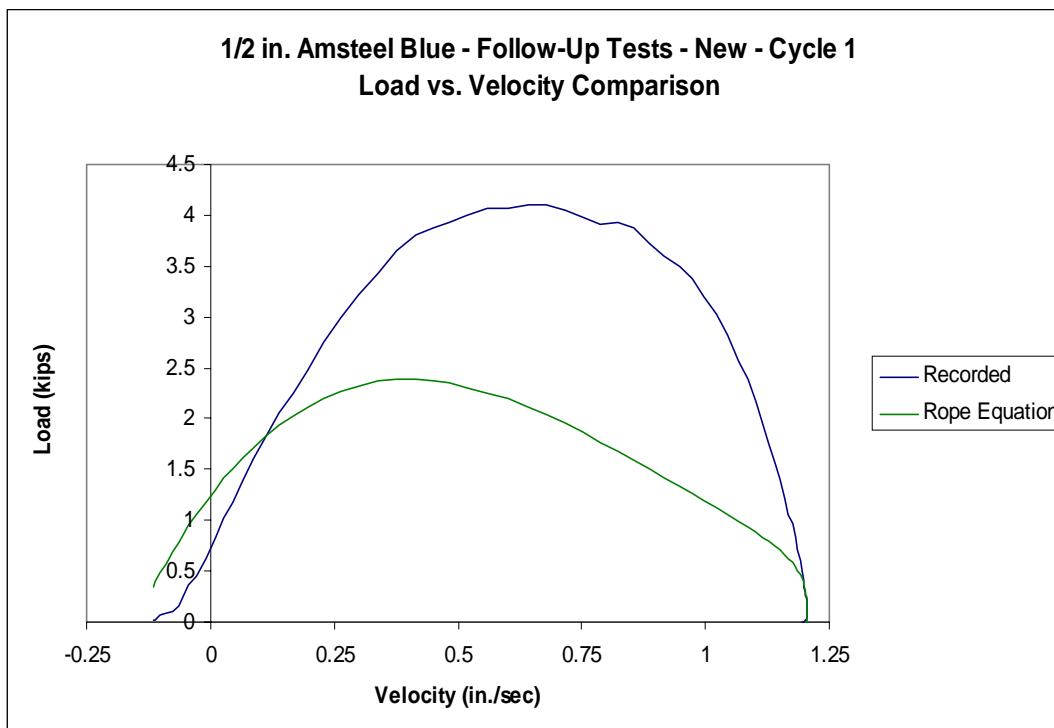


Figure C.2.8: Load vs. Velocity – Amsteel Blue – Follow-Up Tests – New – Cycle 1

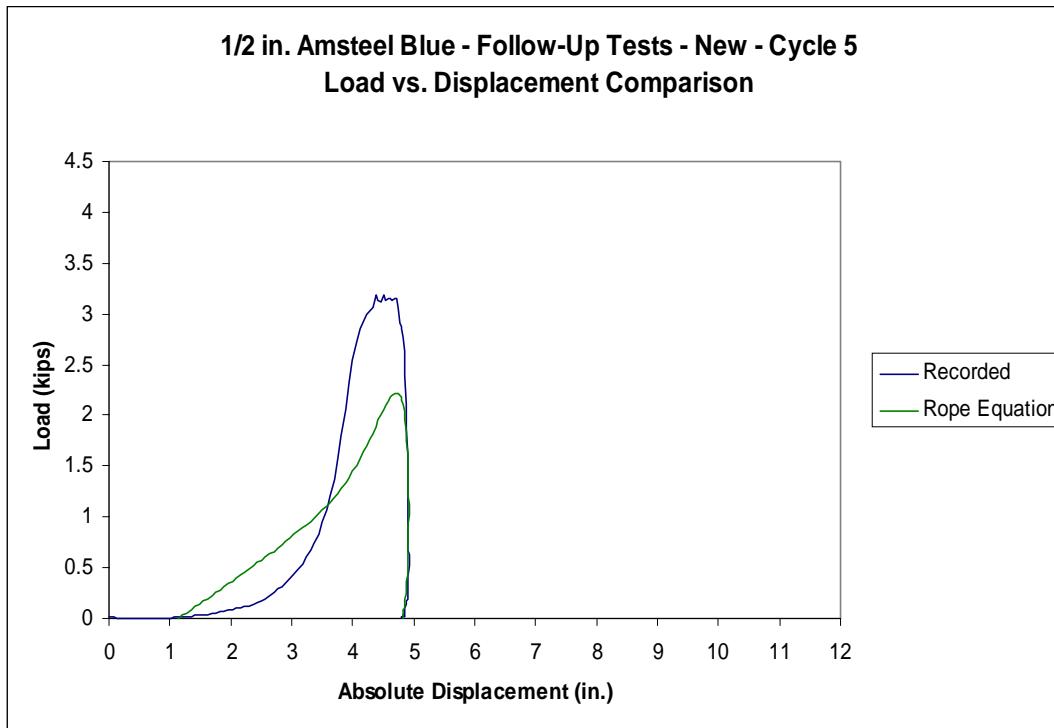


Figure C.2.9: Load vs. Displacement – Amsteel Blue – Follow-Up Tests – New – Cycle 5

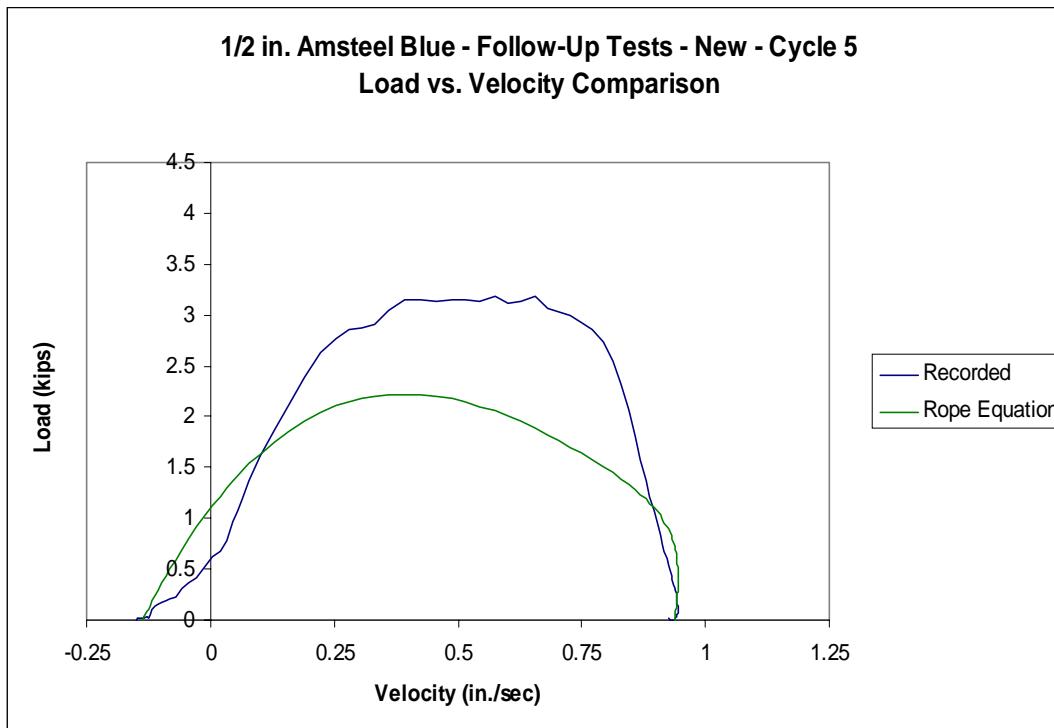


Figure C.2.10: Load vs. Velocity – Amsteel Blue – Follow-Up Tests – New – Cycle 5

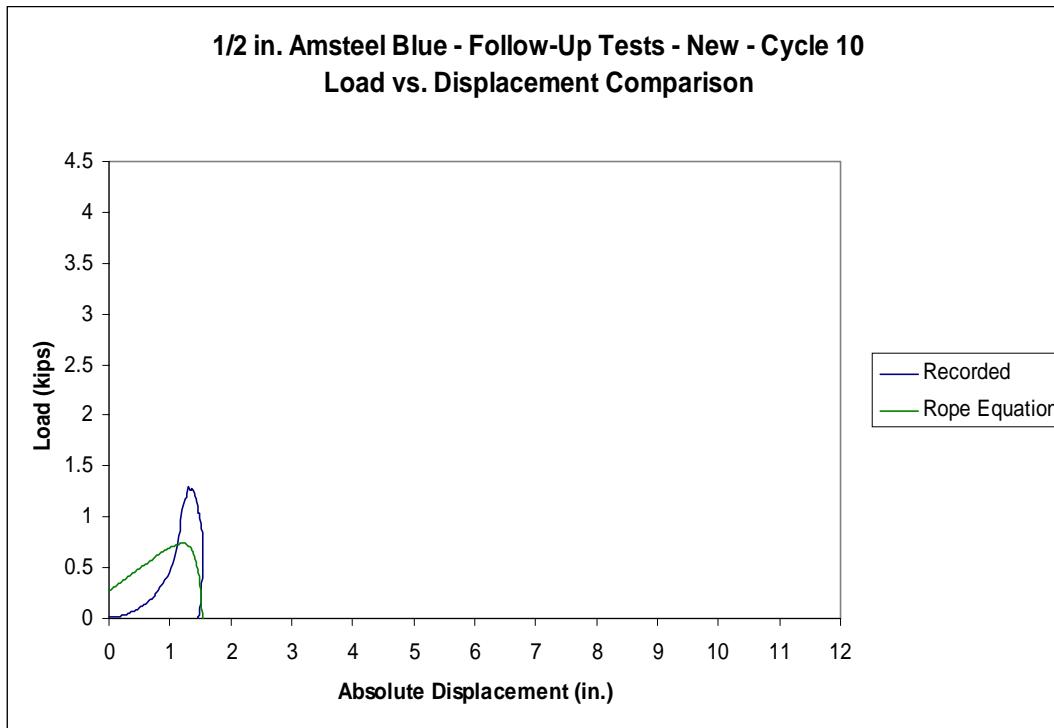


Figure C.2.11: Load vs. Displacement – Amsteel Blue – Follow-Up Tests – New – Cycle 10

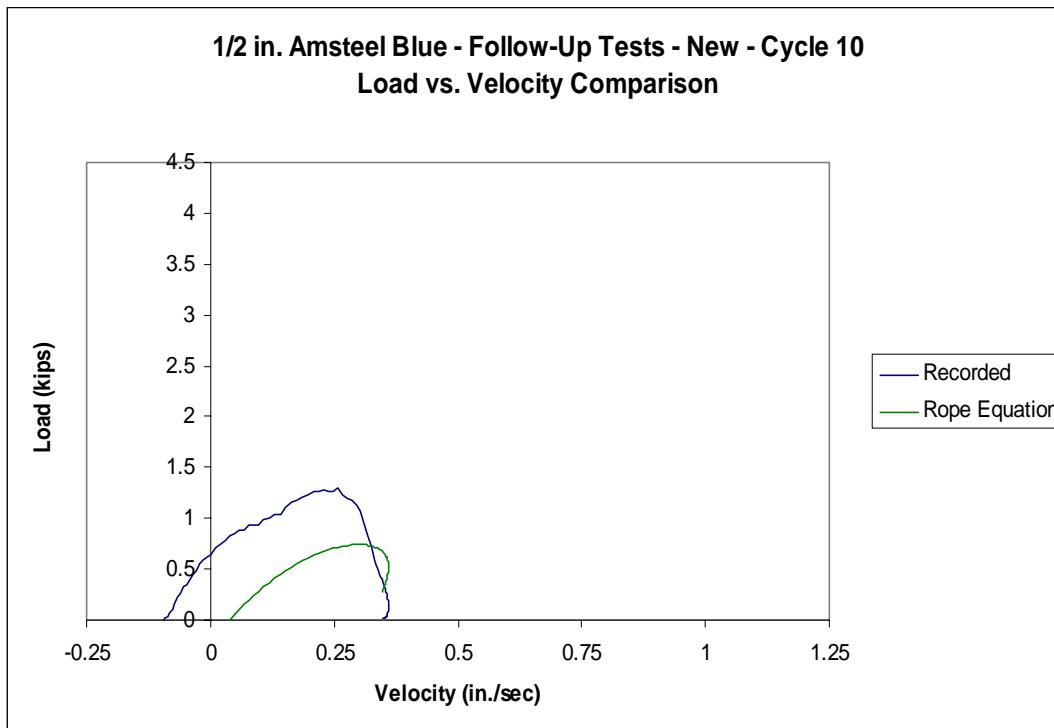


Figure C.2.12: Load vs. Velocity – Amsteel Blue – Follow-Up Tests – New – Cycle 10

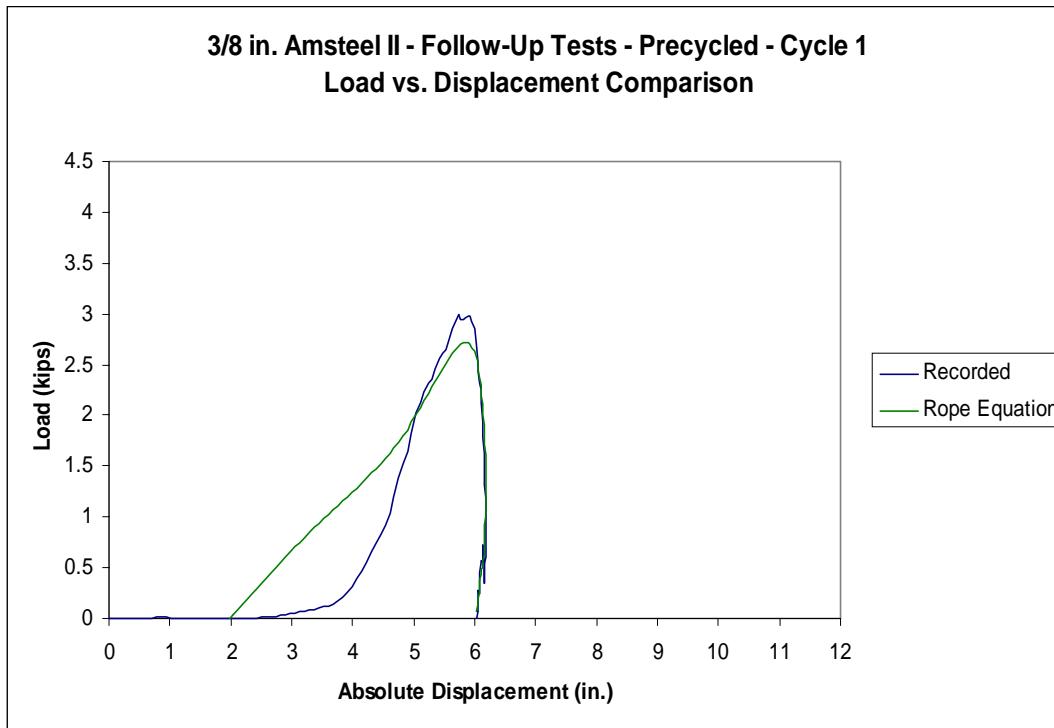


Figure C.2.13: Load vs. Displacement – Amsteel II – Follow-Up Tests – Precycled – Cycle 1

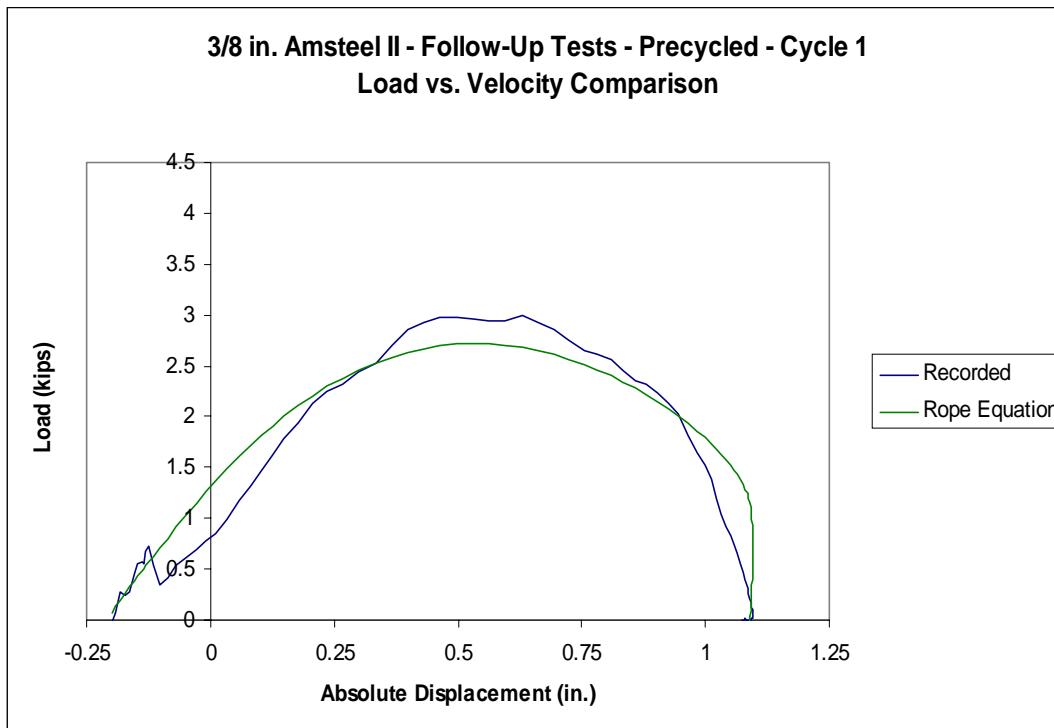


Figure C.2.14: Load vs. Velocity – Amsteel II – Follow-Up Tests – Precycled – Cycle 1

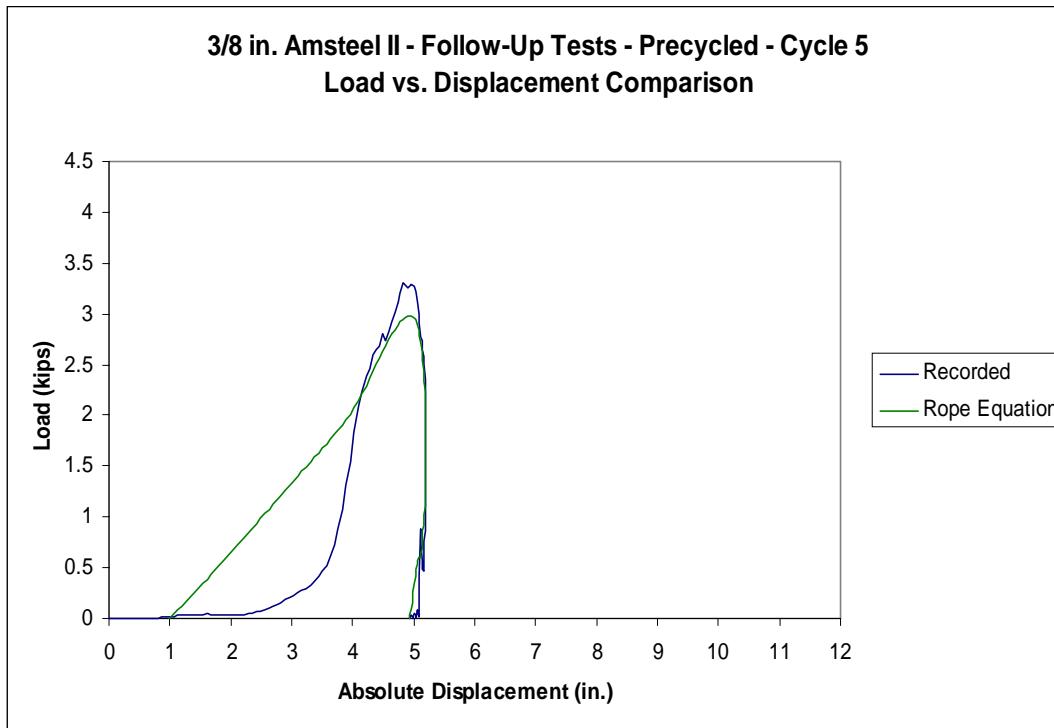


Figure C.2.15: Load vs. Displacement – Amsteel II – Follow-Up Tests – Precycled – Cycle 5

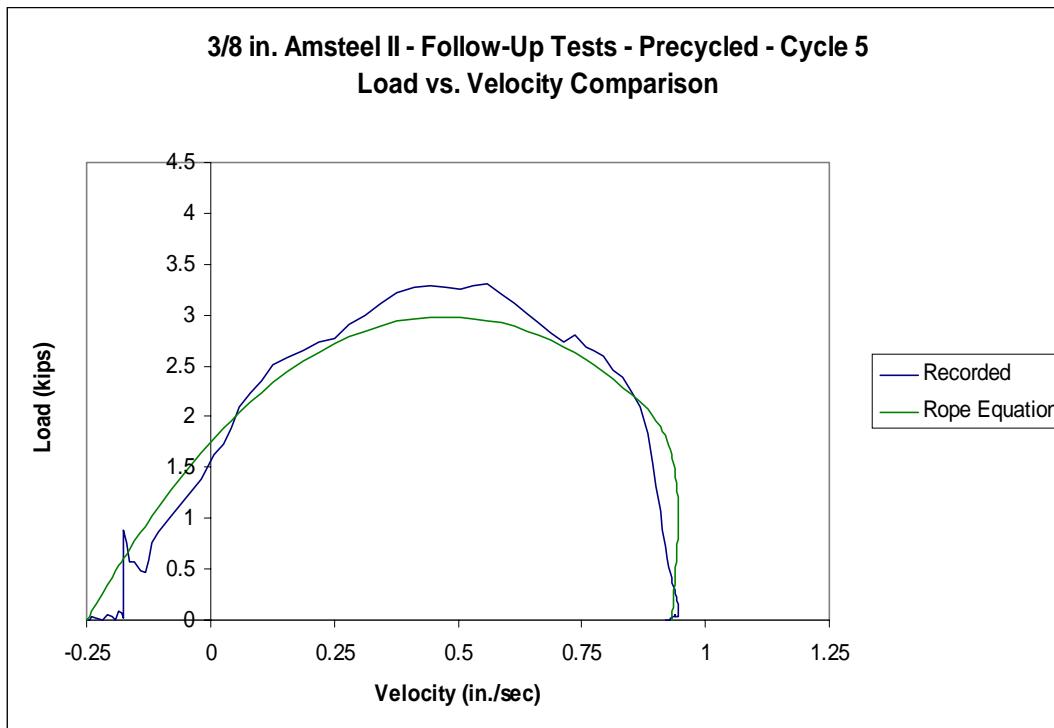


Figure C.2.16: Load vs. Velocity – Amsteel II – Follow-Up Tests – Precycled – Cycle 5

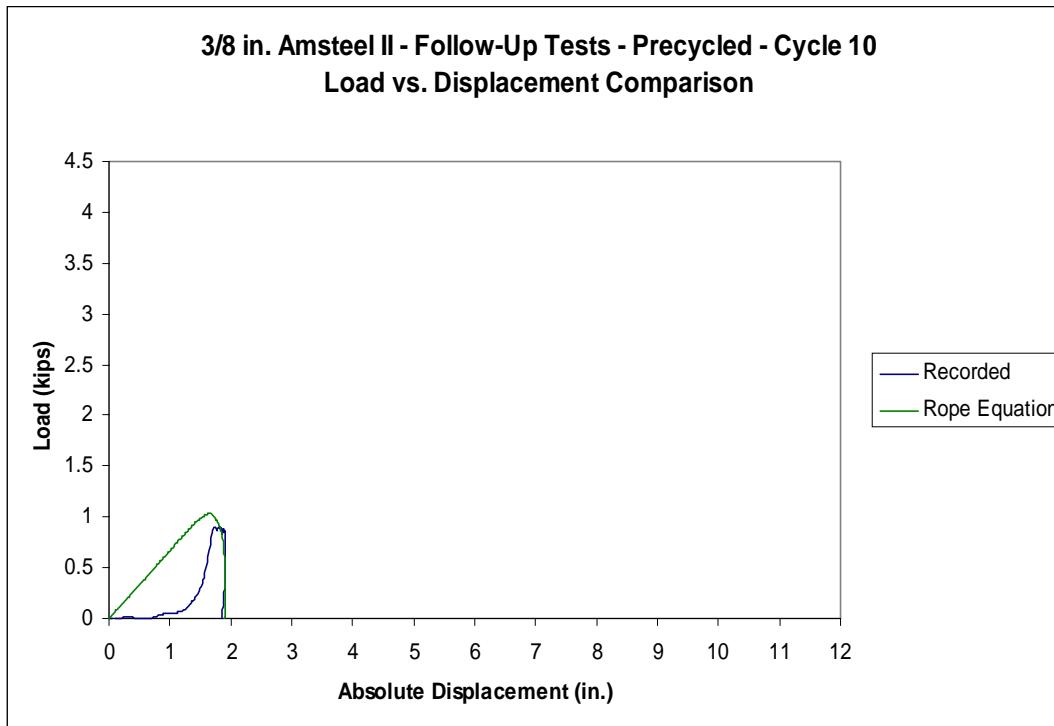


Figure C.2.17: Load vs. Displacement – Amsteel II – Follow-Up Tests – Precycled – Cycle 10

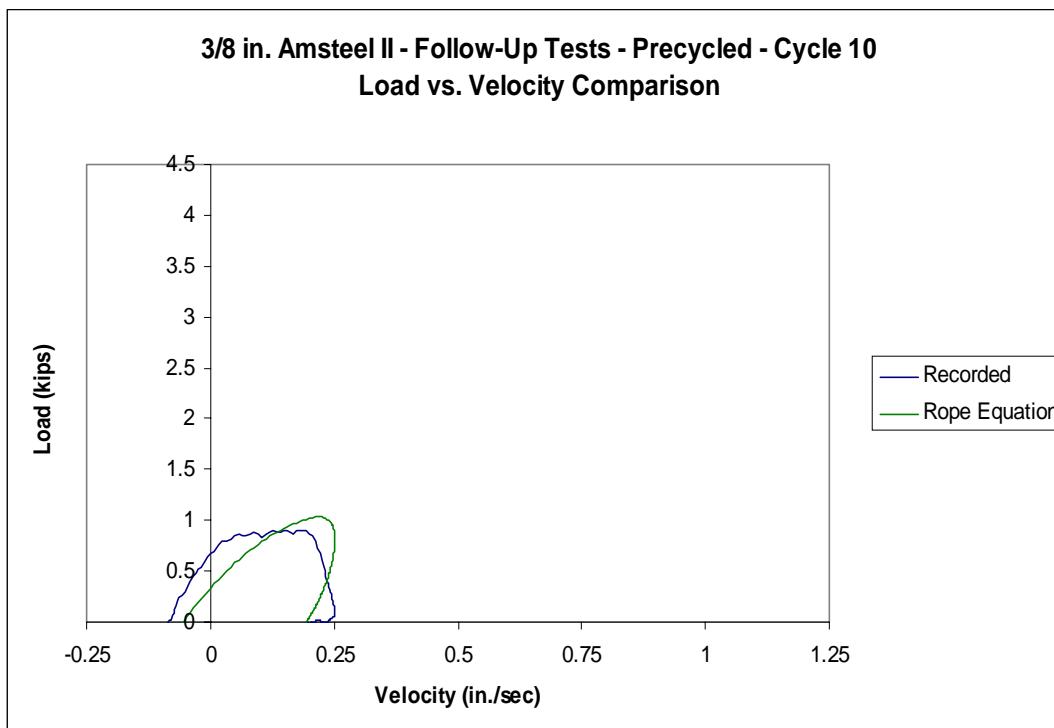


Figure C.2.18: Load vs. Velocity – Amsteel II – Follow-Up Tests – Precycled – Cycle 10

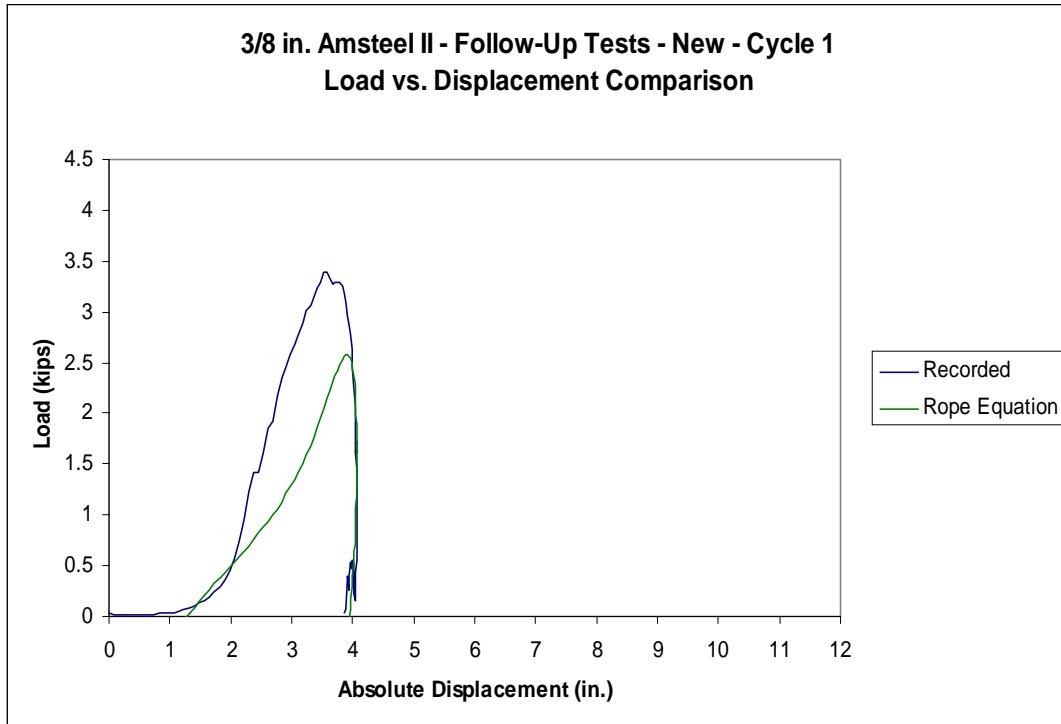


Figure C.2.19: Load vs. Displacement – Amsteel II – Follow-Up Tests – New – Cycle 1

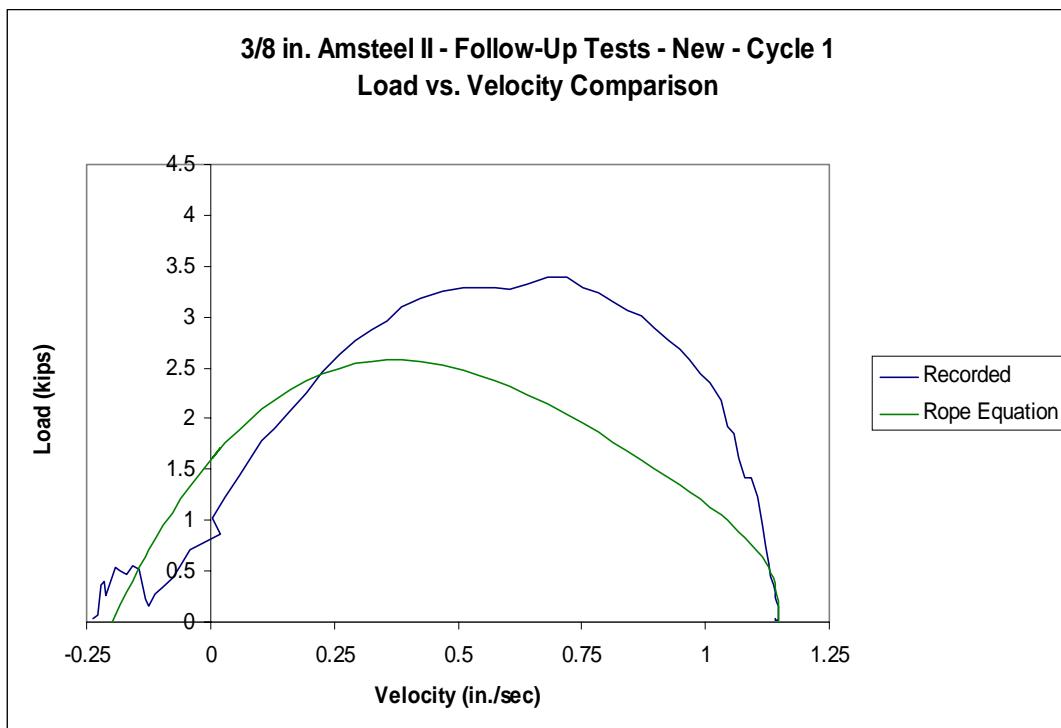


Figure C.2.20: Load vs. Velocity – Amsteel II – Follow-Up Tests – New – Cycle 1

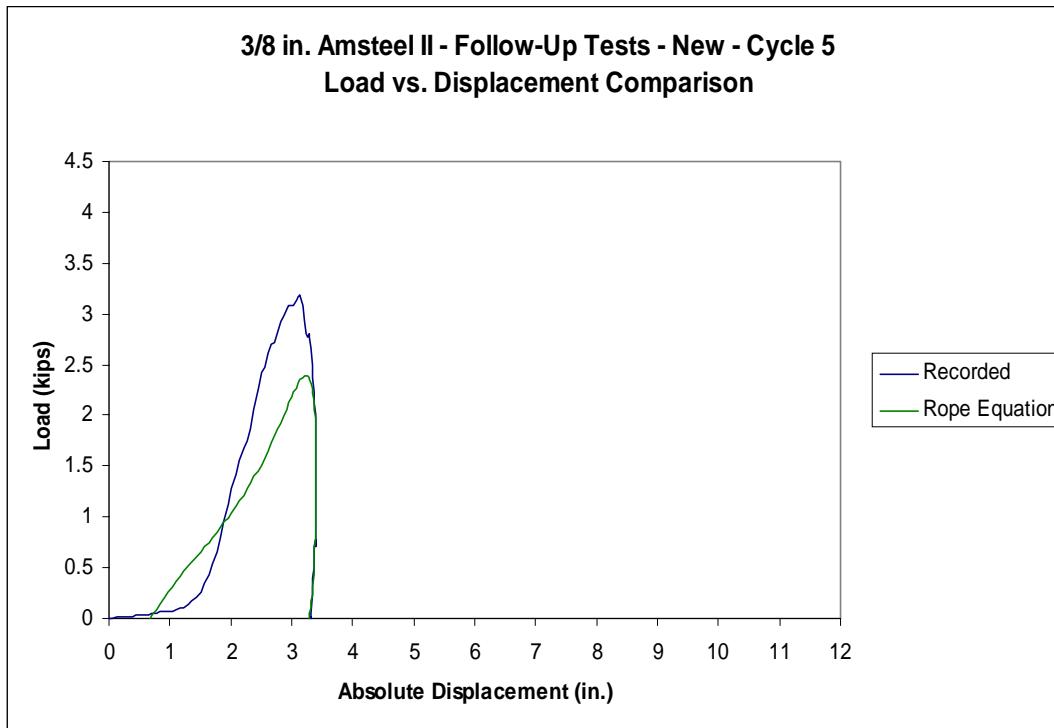


Figure C.2.21: Load vs. Displacement – Amsteel II – Follow-Up Tests – New – Cycle 5

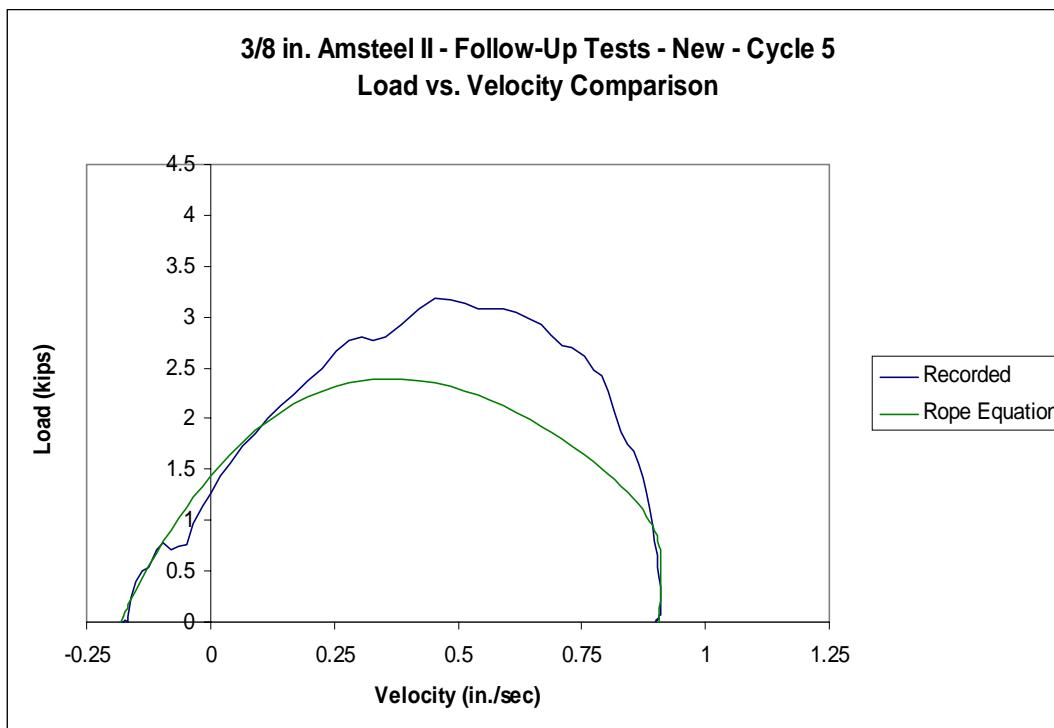


Figure C.2.22: Load vs. Velocity – Amsteel II – Follow-Up Tests – New – Cycle 5

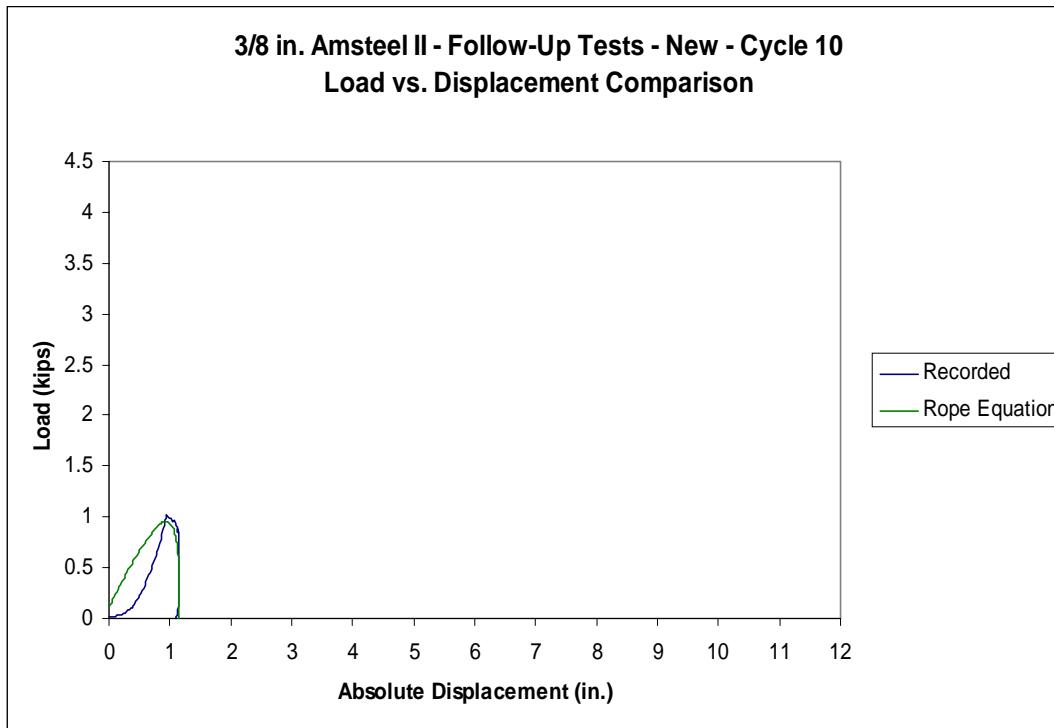


Figure C.2.23: Load vs. Displacement – Amsteel II – Follow-Up Tests – New – Cycle 10

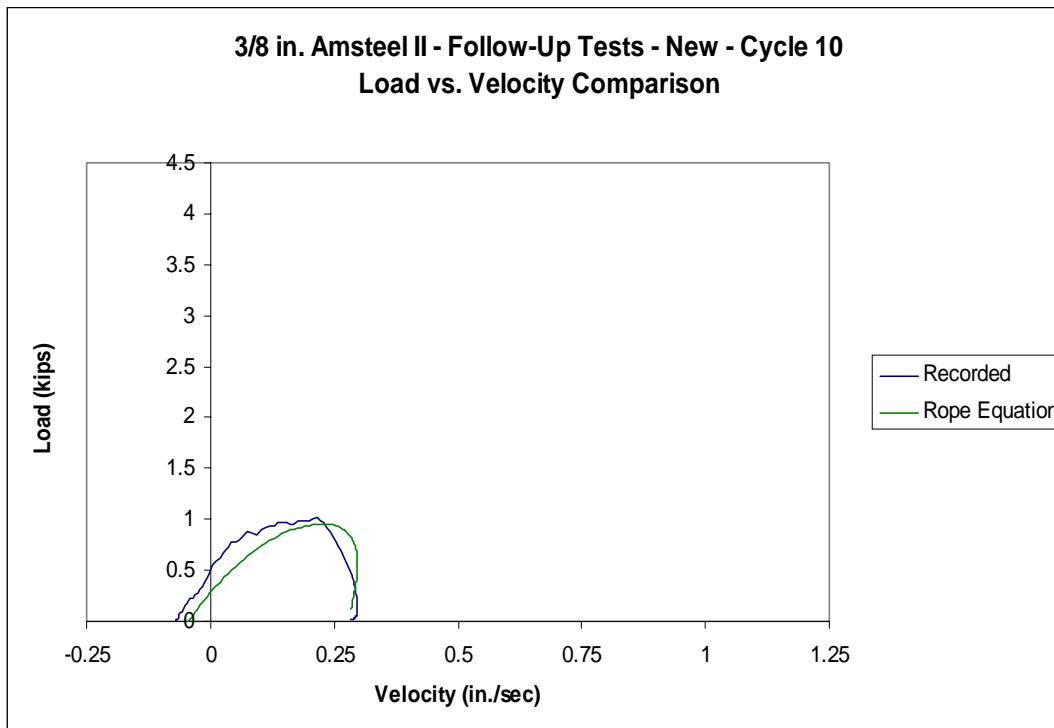


Figure C.2.24: Load vs. Velocity – Amsteel II – Follow-Up Tests – New – Cycle 10

C.3 Load vs. Displacement and Load vs. Velocity Plots for the Amsteel Blue Ropes – Model 4

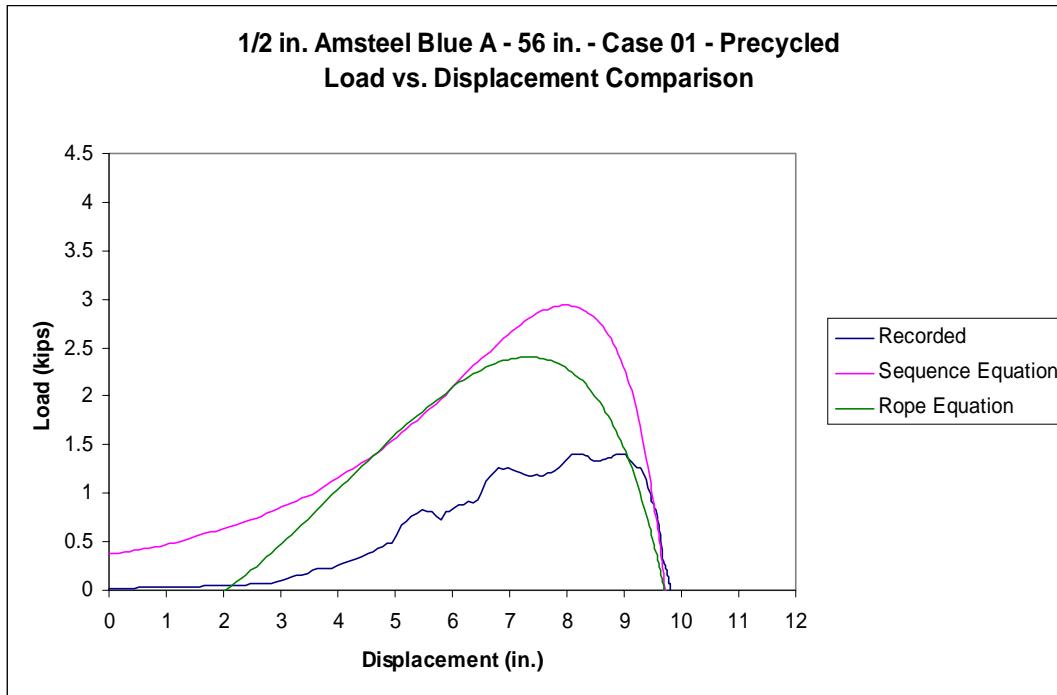


Figure C.3.1: Load vs. Displacement – Amsteel Blue A – Precycled – Cycle 1

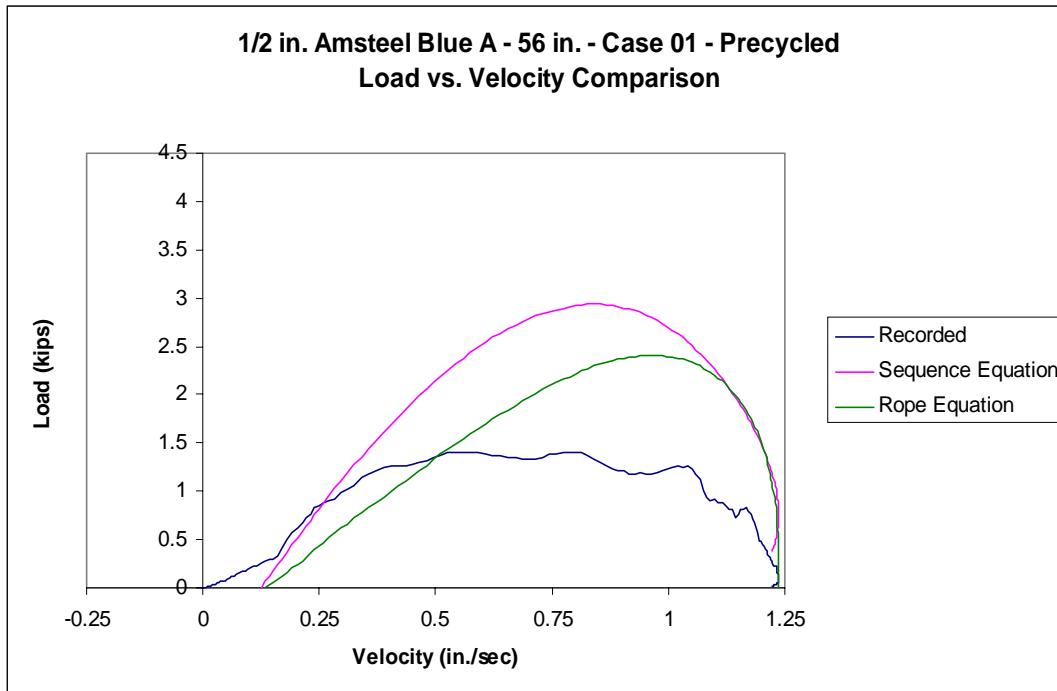


Figure C.3.2: Load vs. Velocity – Amsteel Blue A – Precycled – Cycle 1

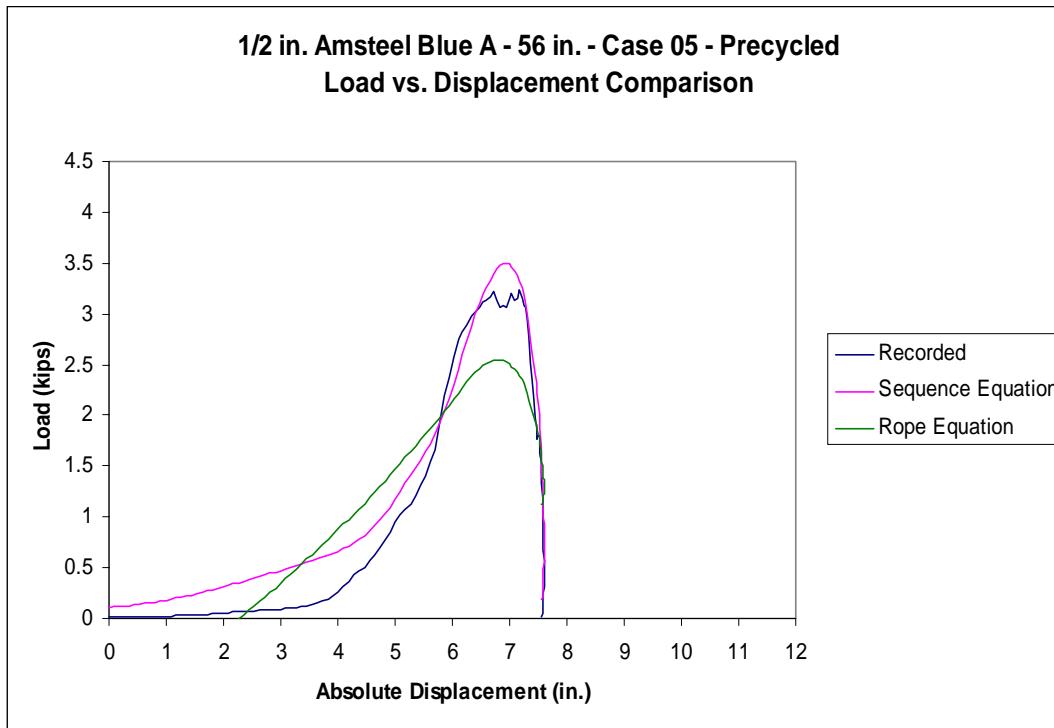


Figure C.3.3: Load vs. Displacement – Amsteel Blue A – Precycled – Cycle 5

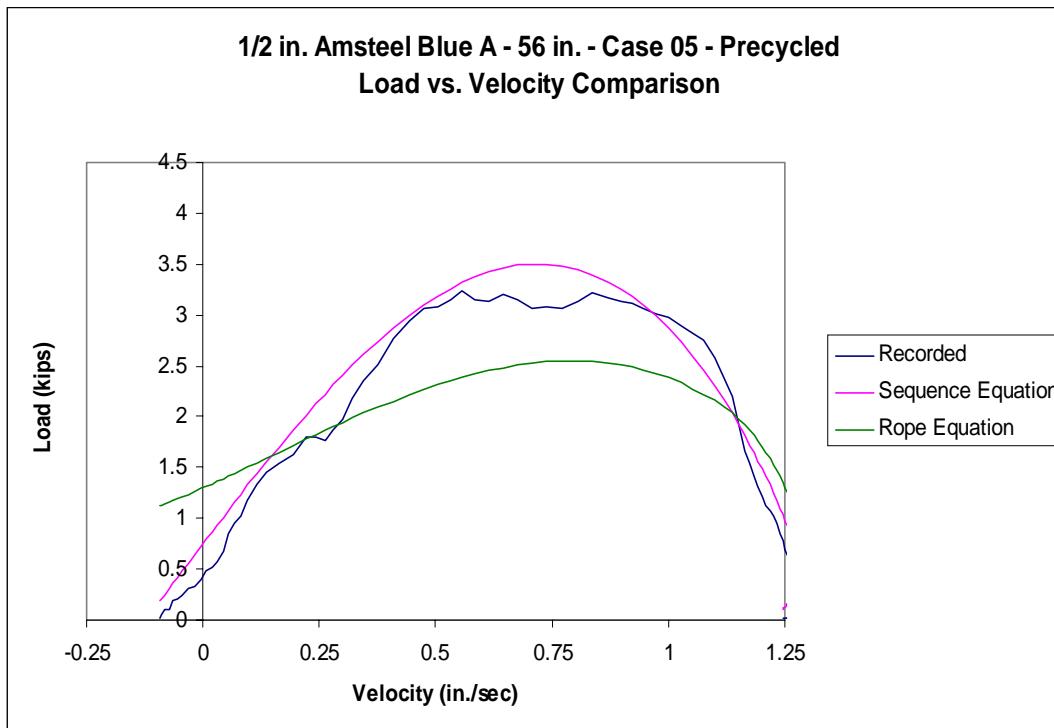


Figure C.3.4: Load vs. Velocity – Amsteel Blue A – Precycled – Cycle 5

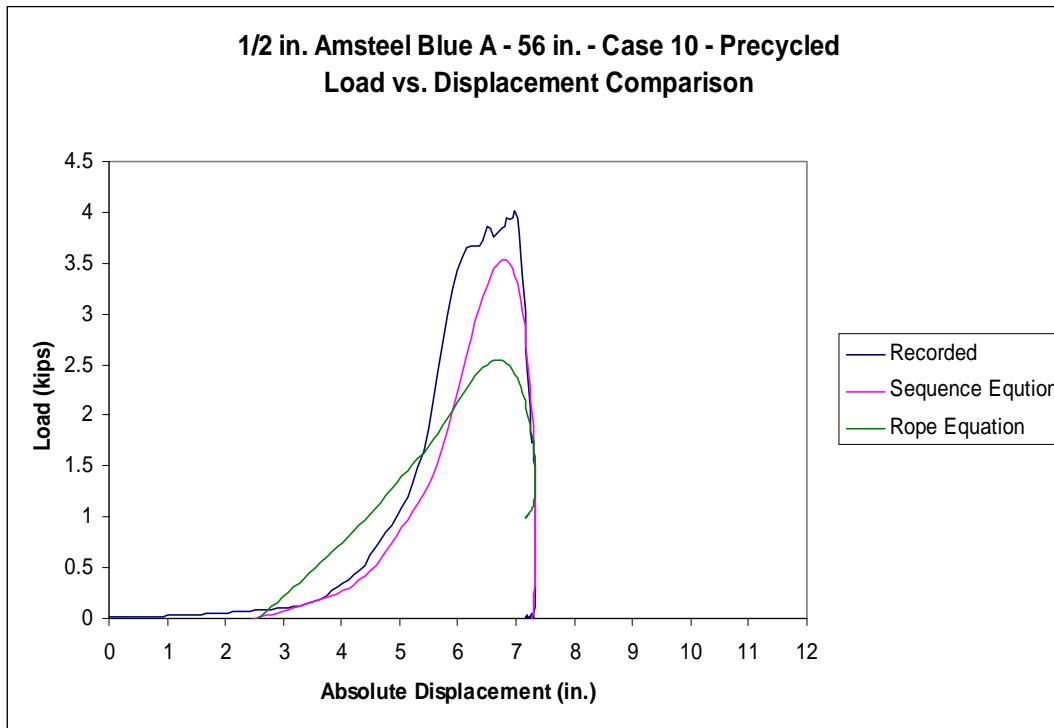


Figure C.3.5: Load vs. Displacement – Amsteel Blue A – Precycled – Cycle 10

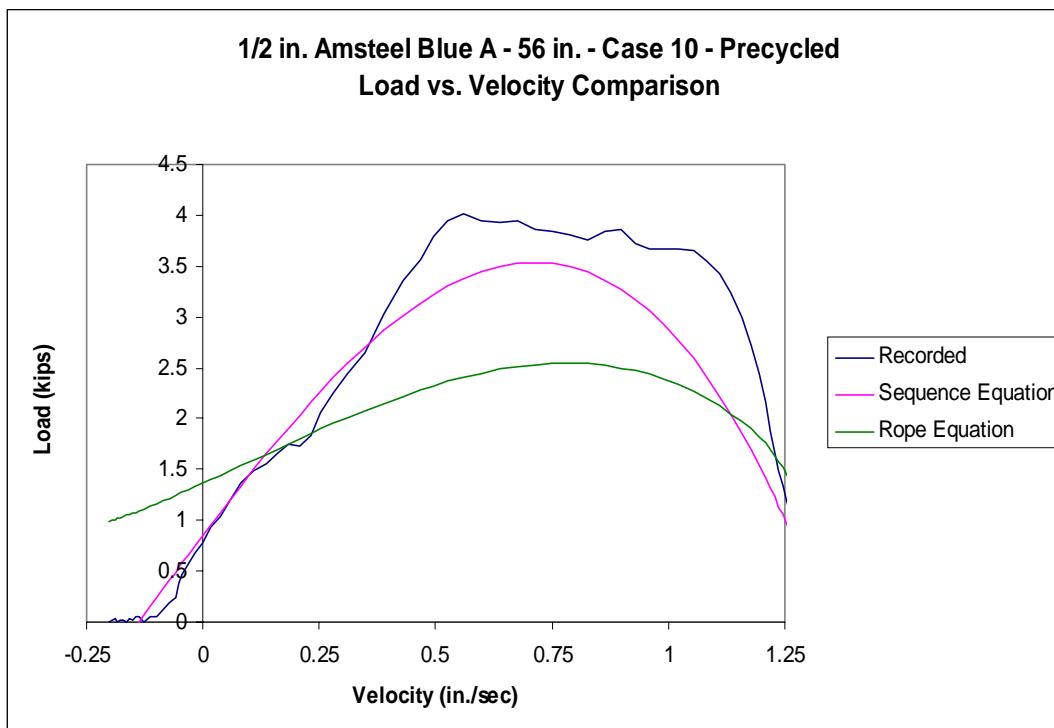


Figure C.3.6: Load vs. Velocity – Amsteel Blue A – Precycled – Cycle 10

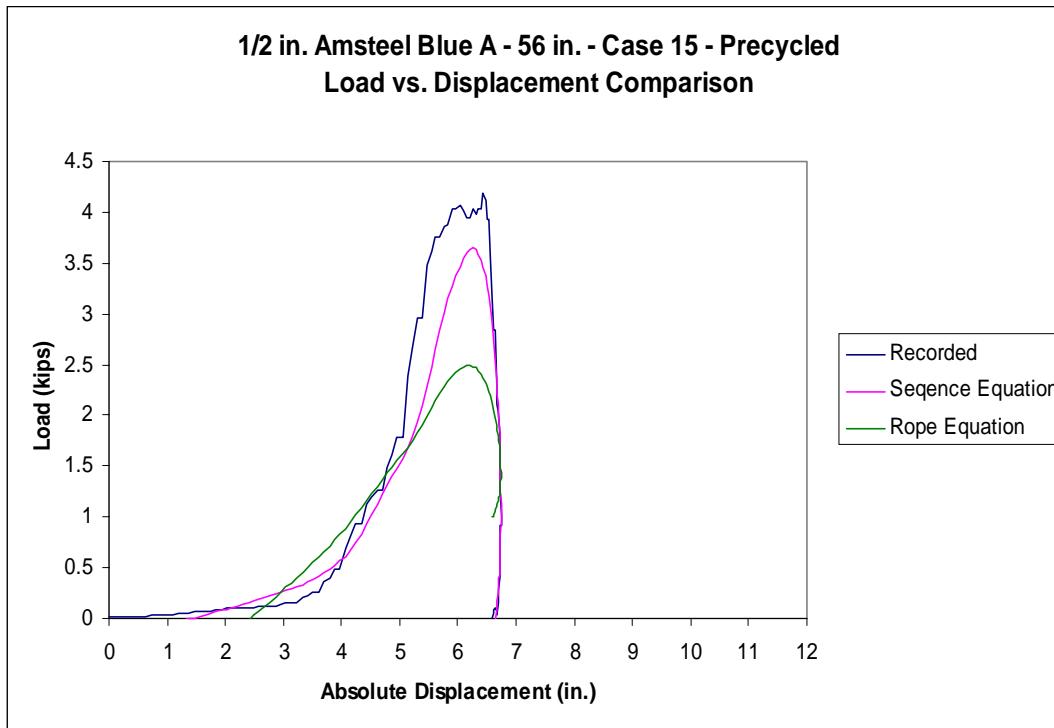


Figure C.3.7: Load vs. Displacement – Amsteel Blue A – Precycled – Cycle 15

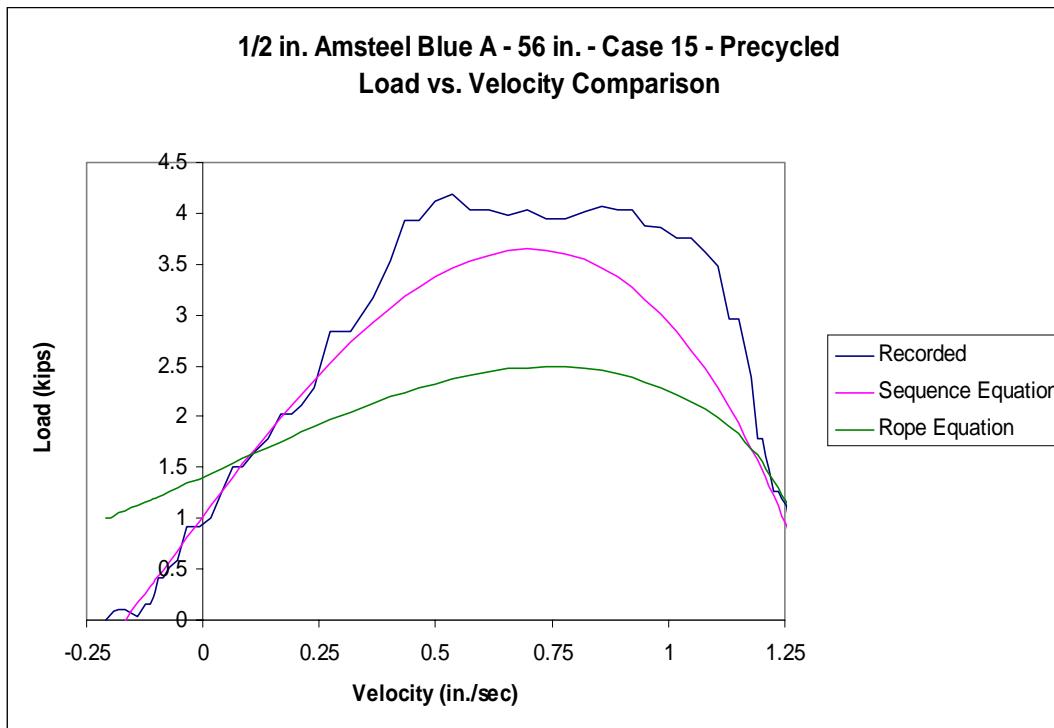


Figure C.3.8: Load vs. Velocity – Amsteel Blue A – Precycled – Cycle 15

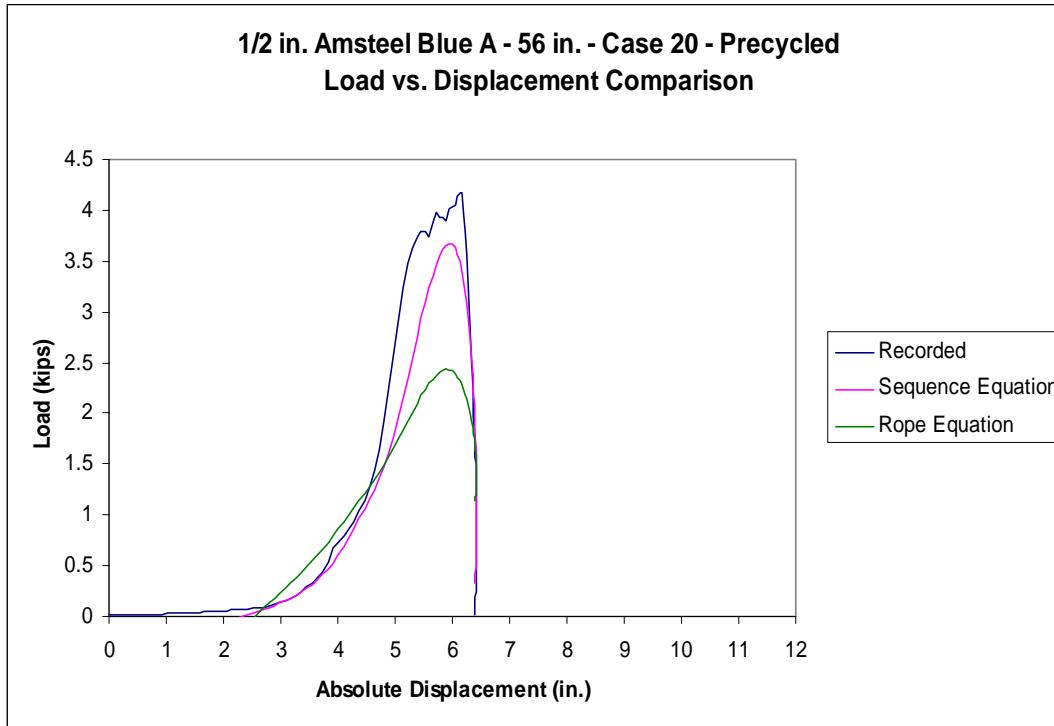


Figure C.3.9: Load vs. Displacement – Amsteel Blue A – Precycled – Cycle 20

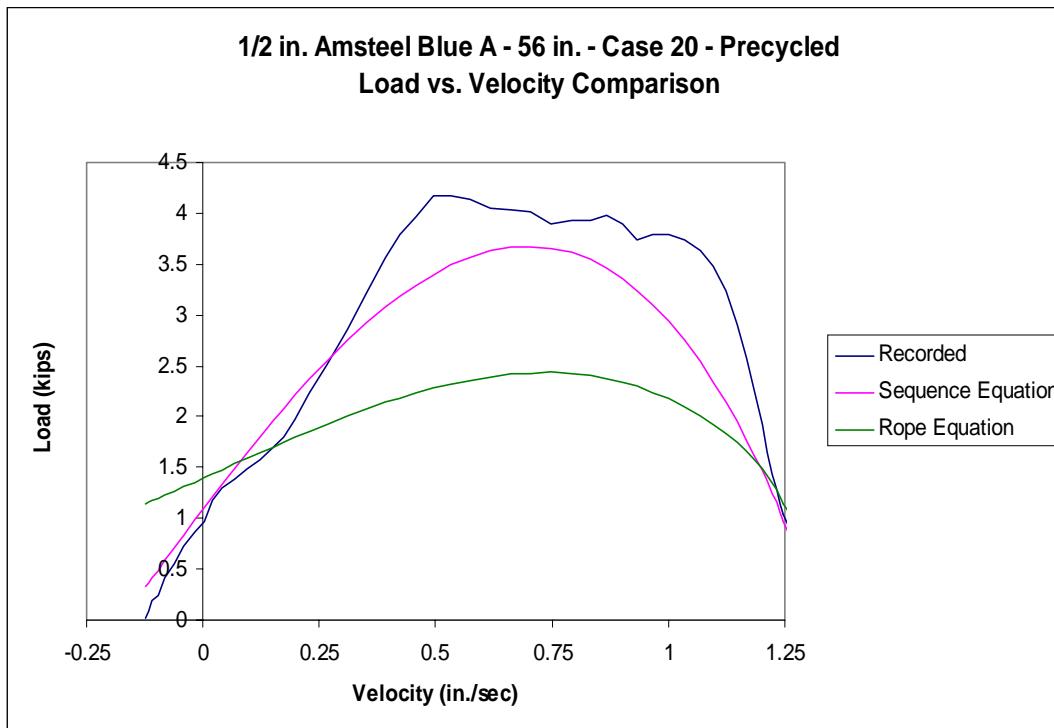


Figure C.3.10: Load vs. Velocity – Amsteel Blue A – Precycled – Cycle 20

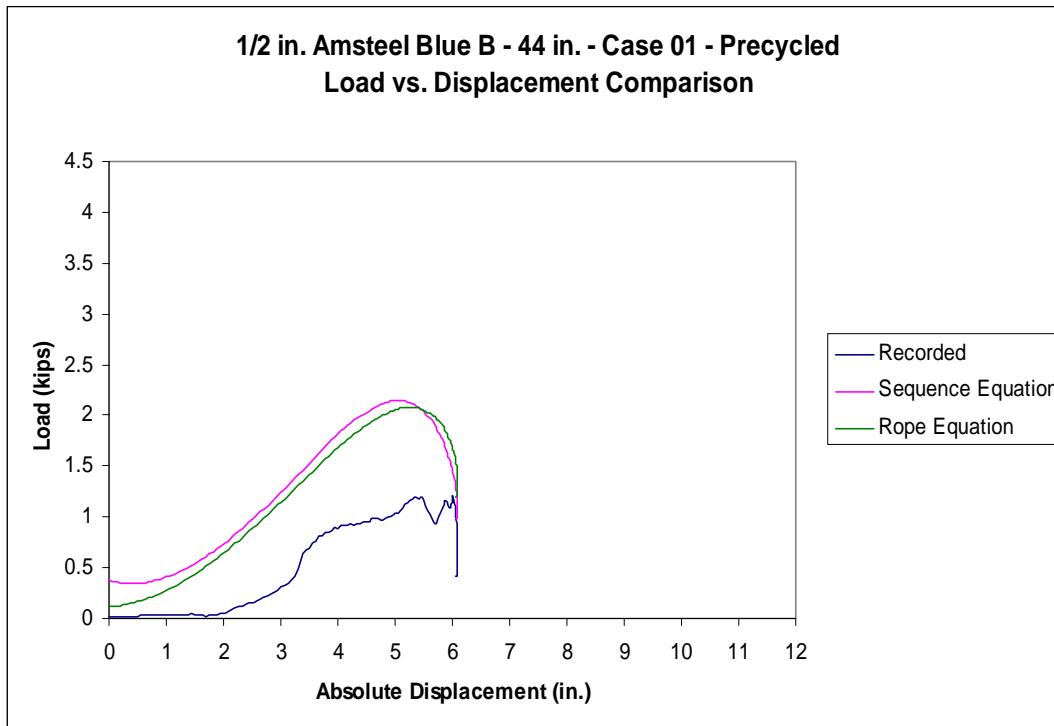


Figure C.3.11: Load vs. Displacement – Amsteel Blue B – Precycled – Cycle 1

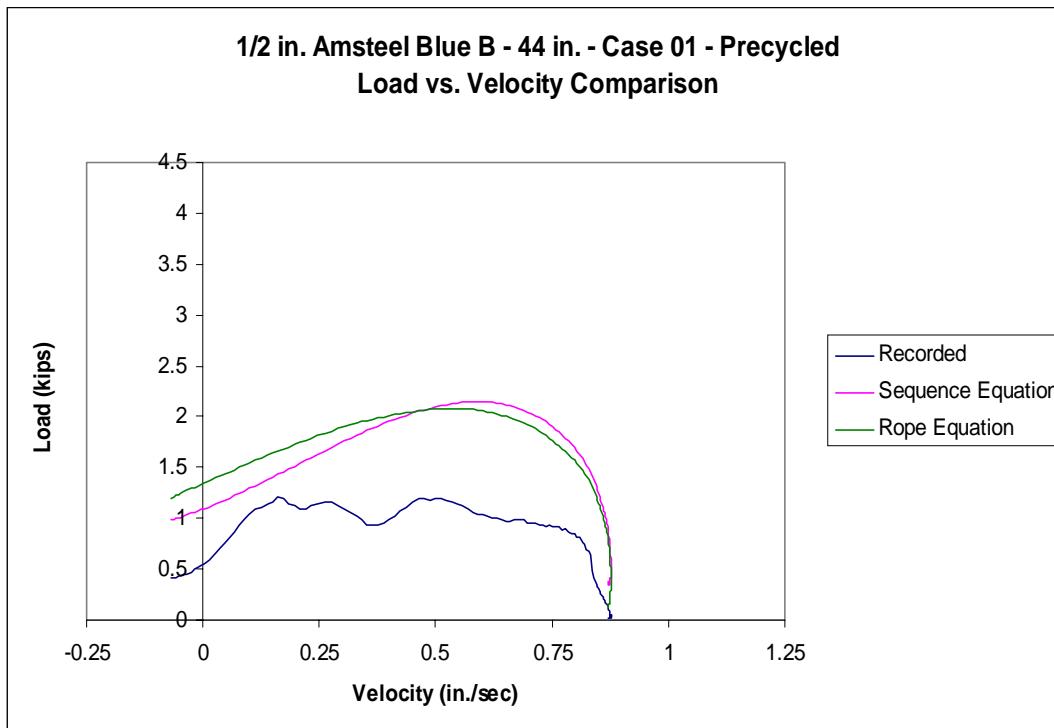


Figure C.3.12: Load vs. Velocity – Amsteel Blue B – Precycled – Cycle 1

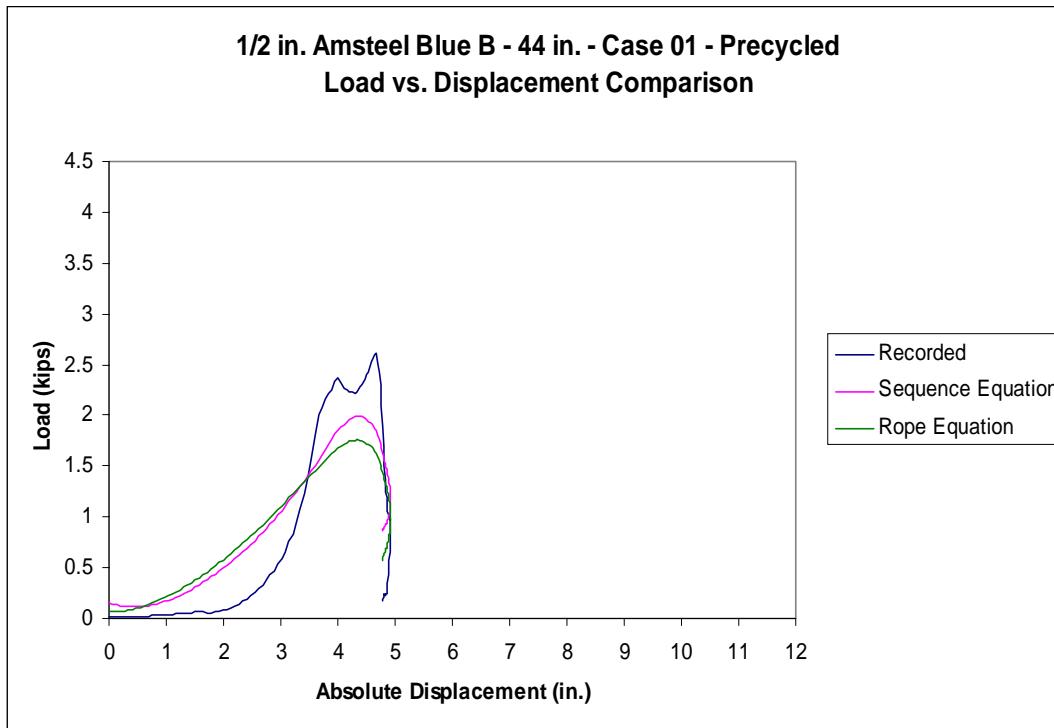


Figure C.3.13: Load vs. Displacement – Amsteel Blue B – Precycled – Cycle 5

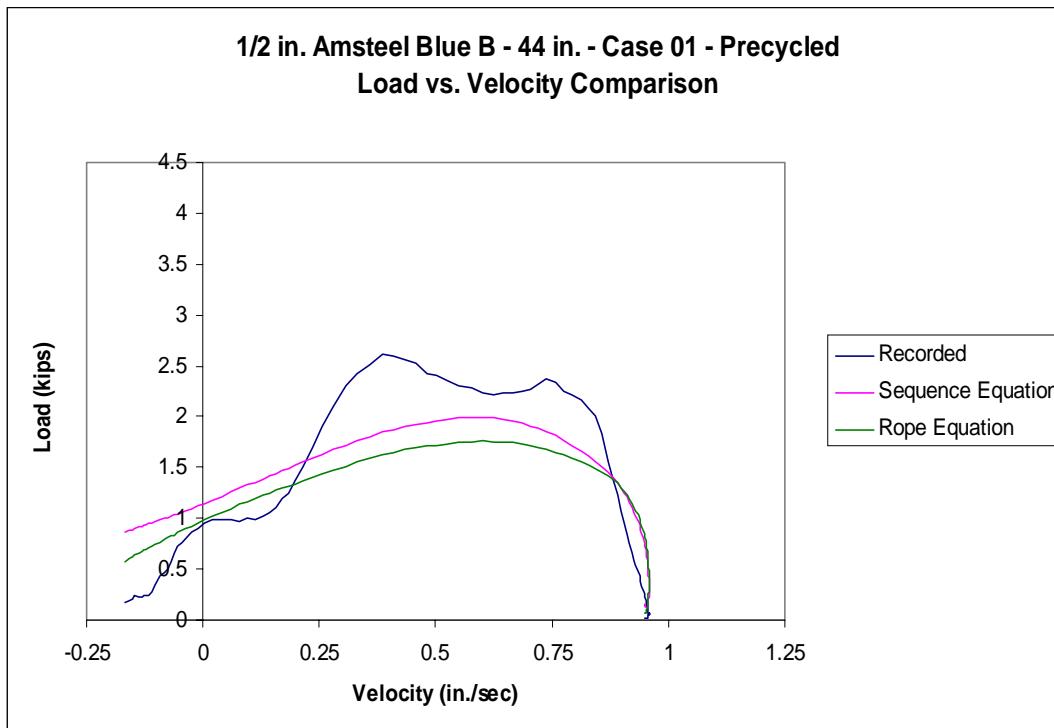


Figure C.3.14: Load vs. Velocity – Amsteel Blue B – Precycled – Cycle 5

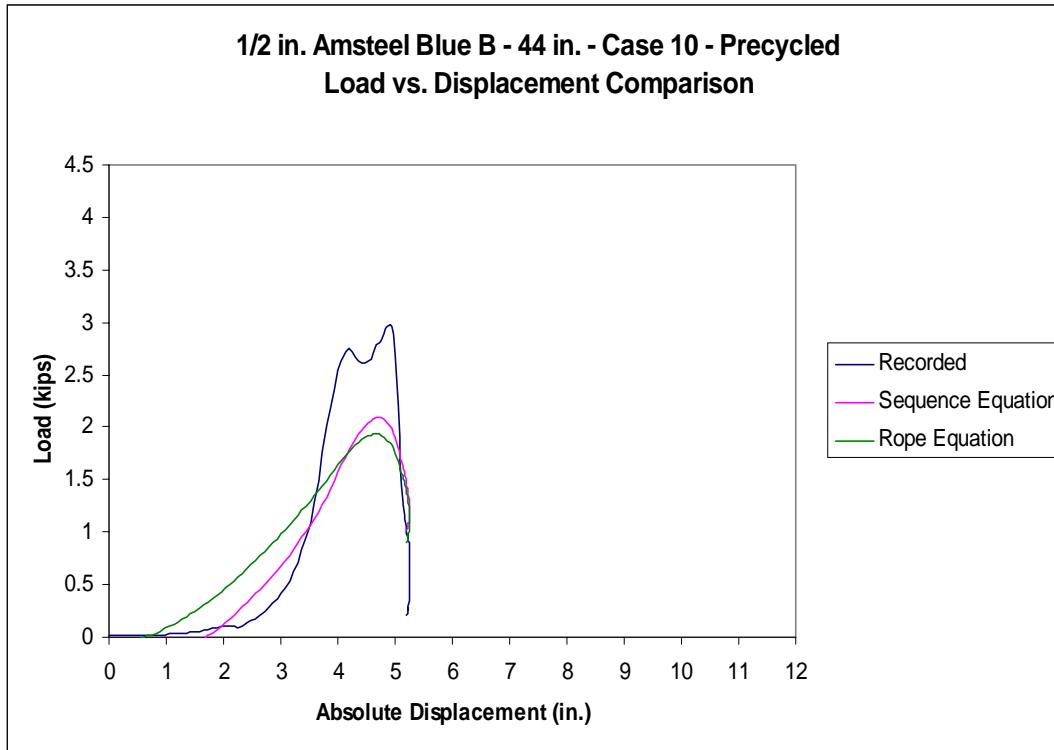


Figure C.3.15: Load vs. Displacement – Amsteel Blue B – Precycled – Cycle 10

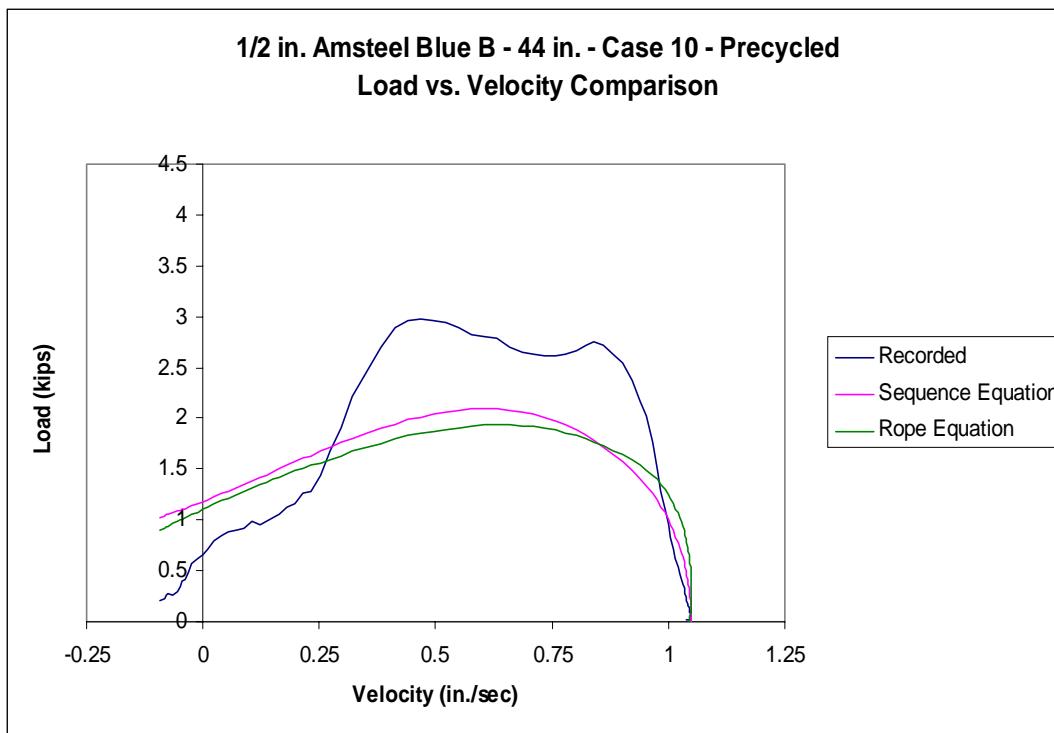


Figure C.3.16: Load vs. Velocity – Amsteel Blue B – Precycled – Cycle 10

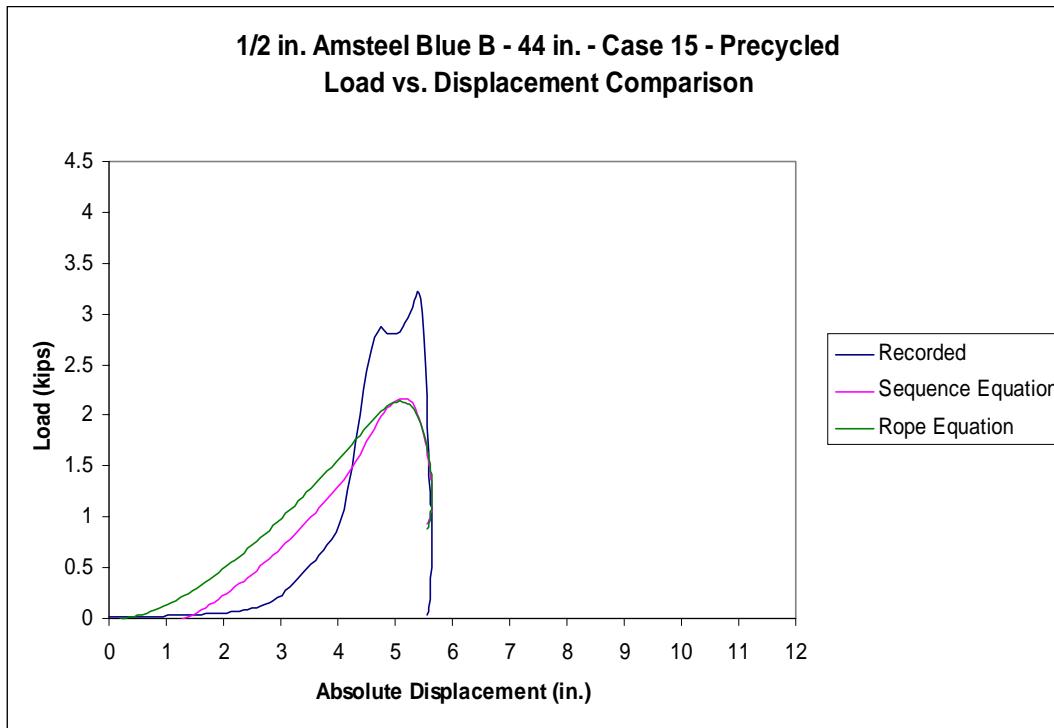


Figure C.3.17: Load vs. Displacement – Amsteel Blue B – Precycled – Cycle 15

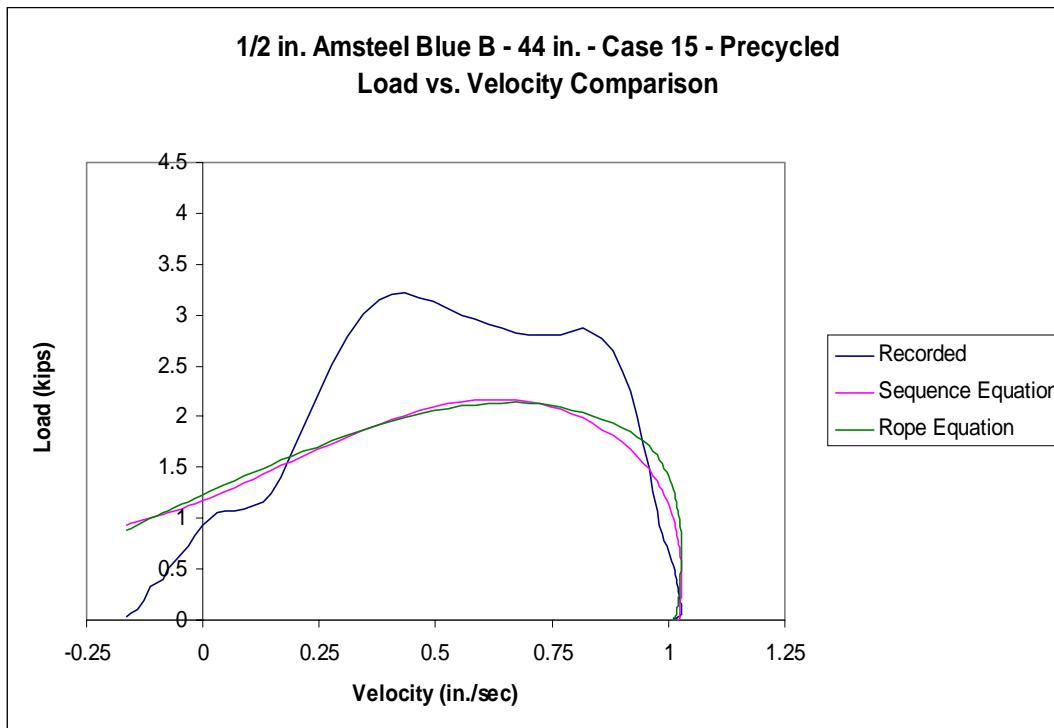


Figure C.3.18: Load vs. Velocity – Amsteel Blue B – Precycled – Cycle 15

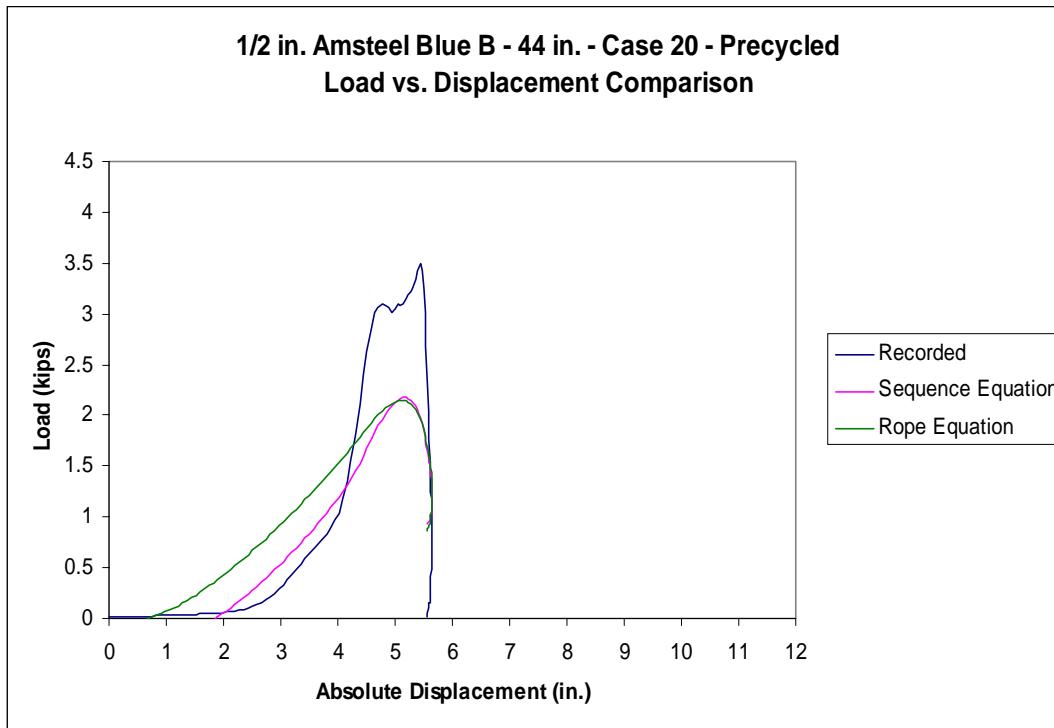


Figure C.3.19: Load vs. Displacement – Amsteel Blue B – Precycled – Cycle 20

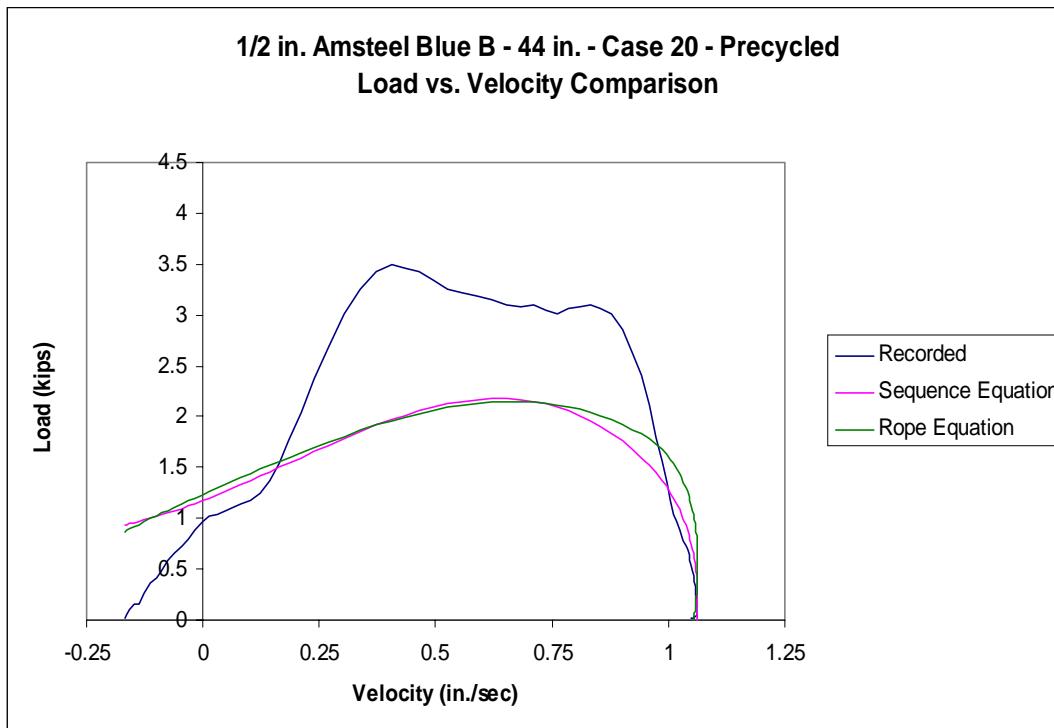


Figure C.3.20: Load vs. Velocity – Amsteel Blue B – Precycled – Cycle 20

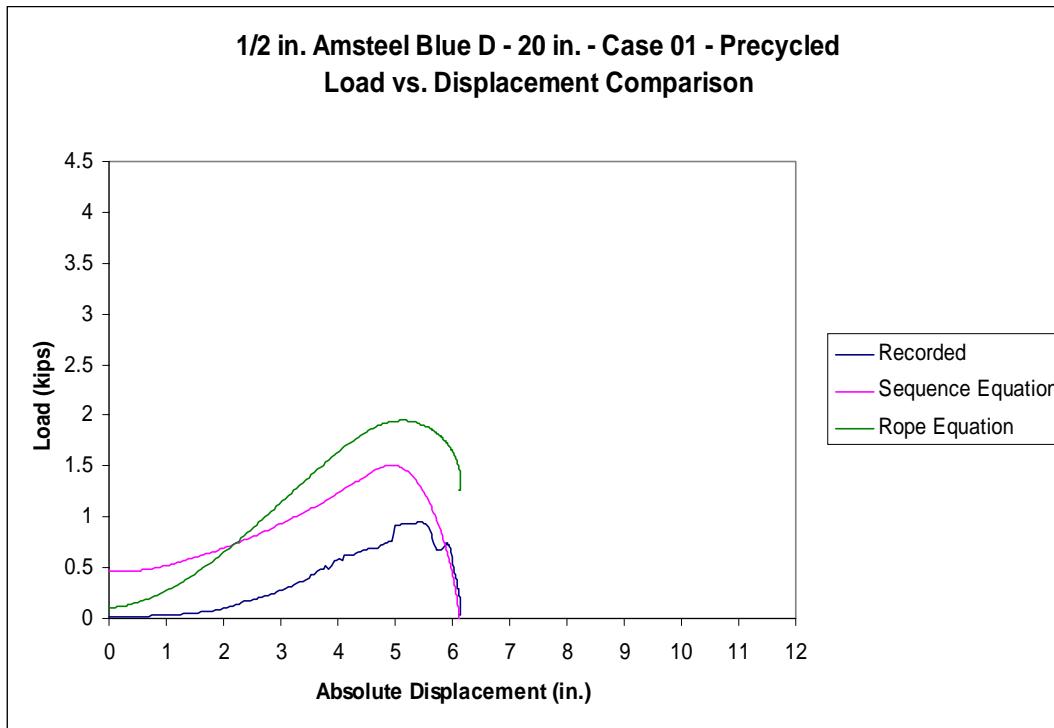


Figure C.3.21: Load vs. Displacement – Amsteel Blue D – Precycled – Cycle 1

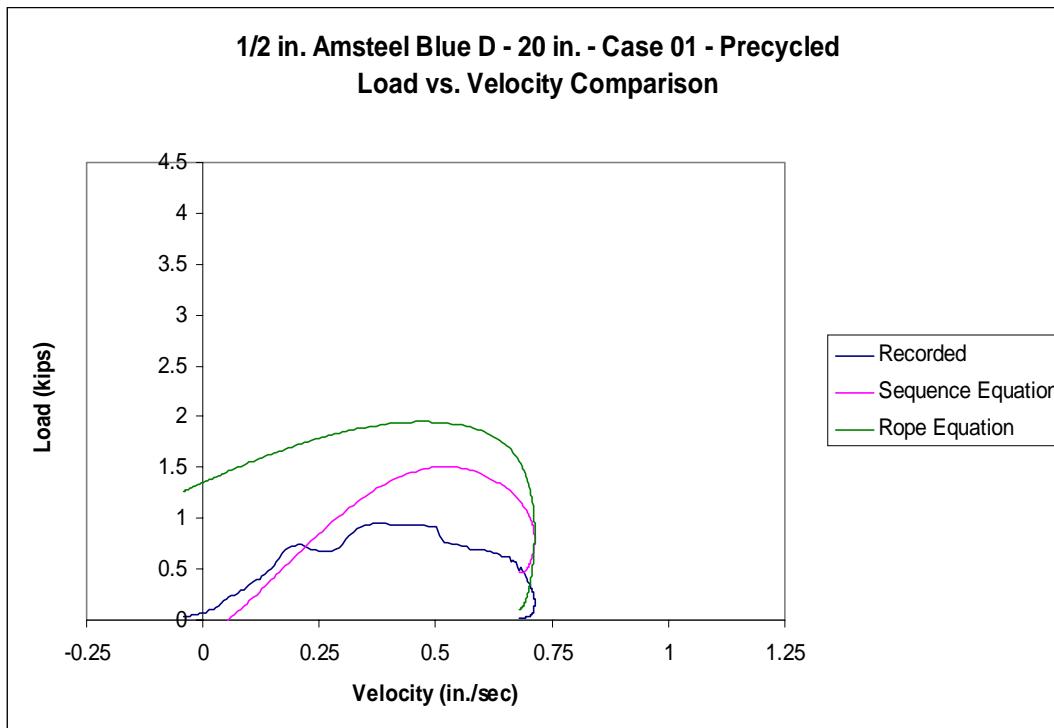


Figure C.3.22: Load vs. Velocity – Amsteel Blue D – Precycled – Cycle 1

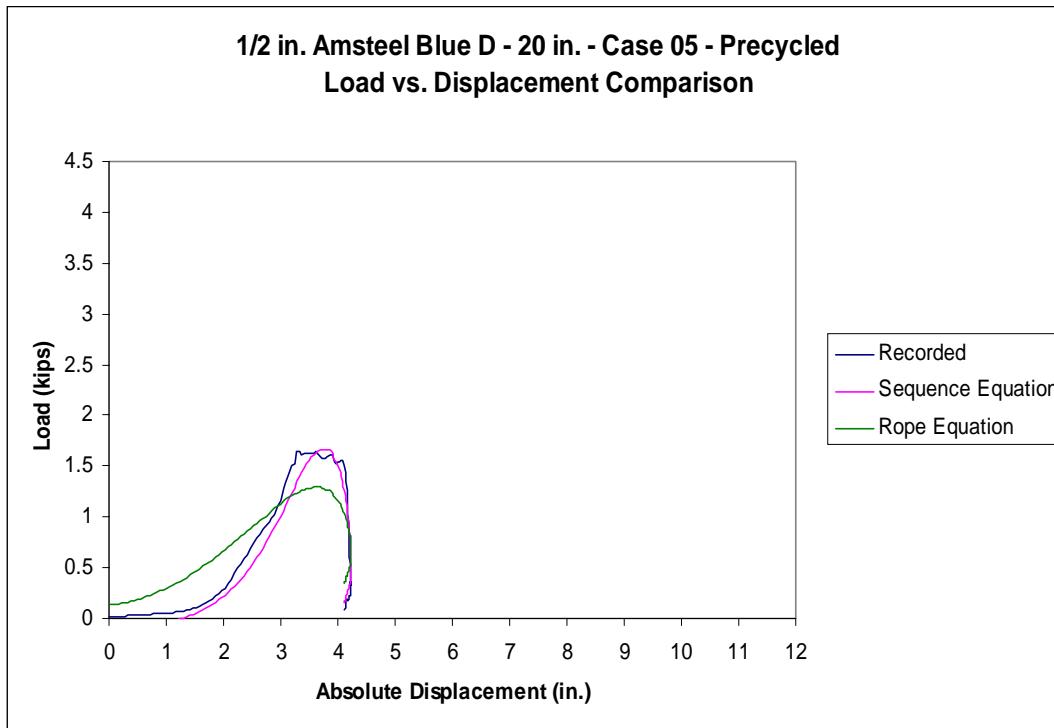


Figure C.3.23: Load vs. Displacement – Amsteel Blue D – Precycled – Cycle 5

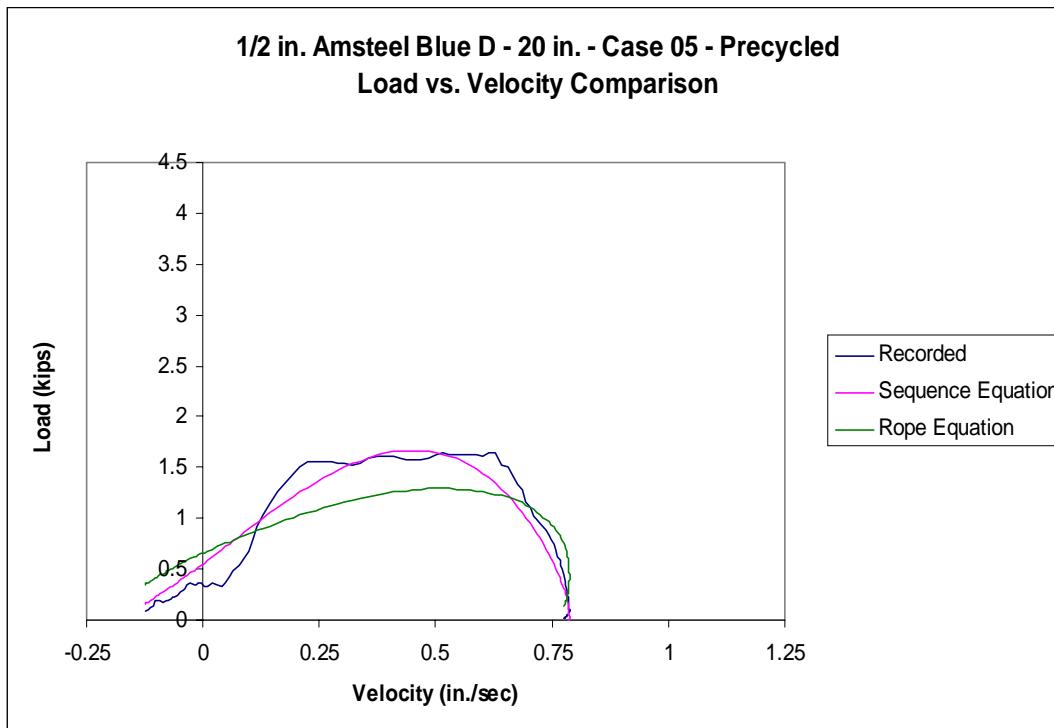


Figure C.3.24: Load vs. Velocity – Amsteel Blue D – Precycled – Cycle 5

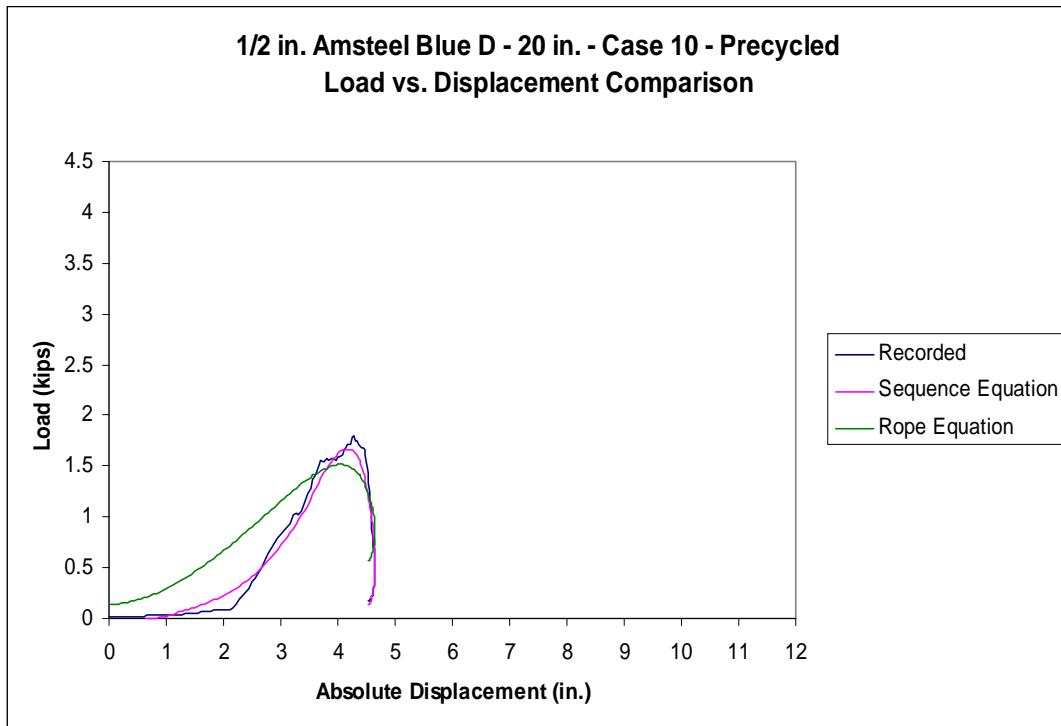


Figure C.3.25: Load vs. Displacement – Amsteel Blue D – Precycled – Cycle 10

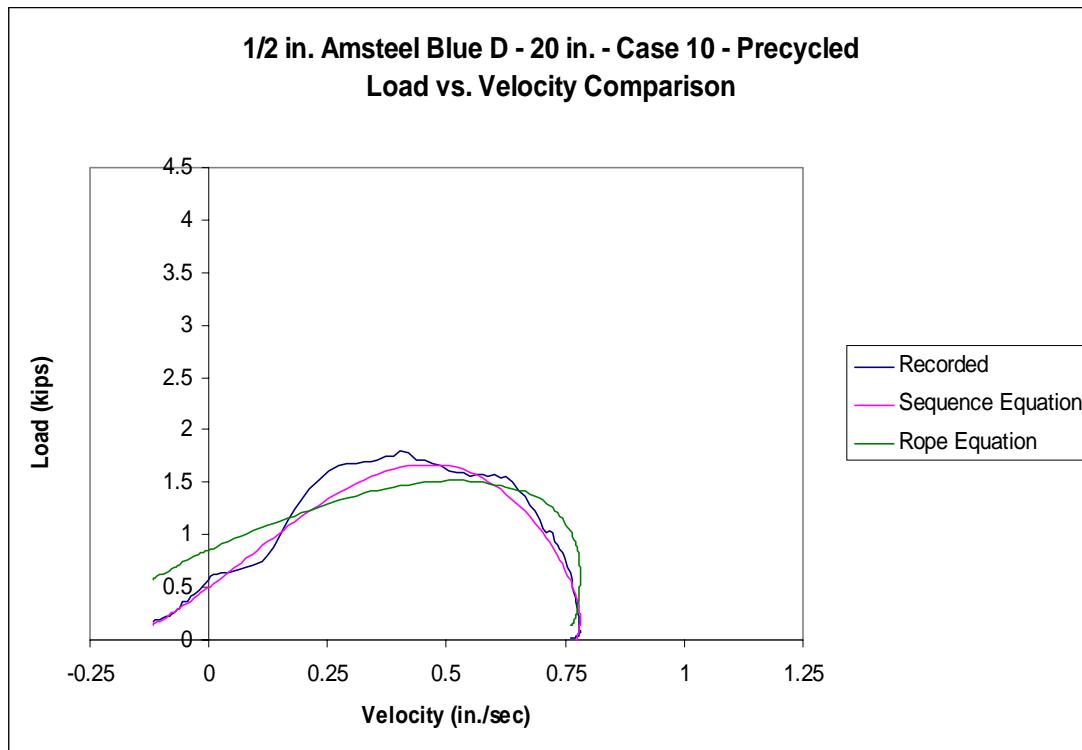


Figure C.3.26: Load vs. Velocity – Amsteel Blue D – Precycled – Cycle 10

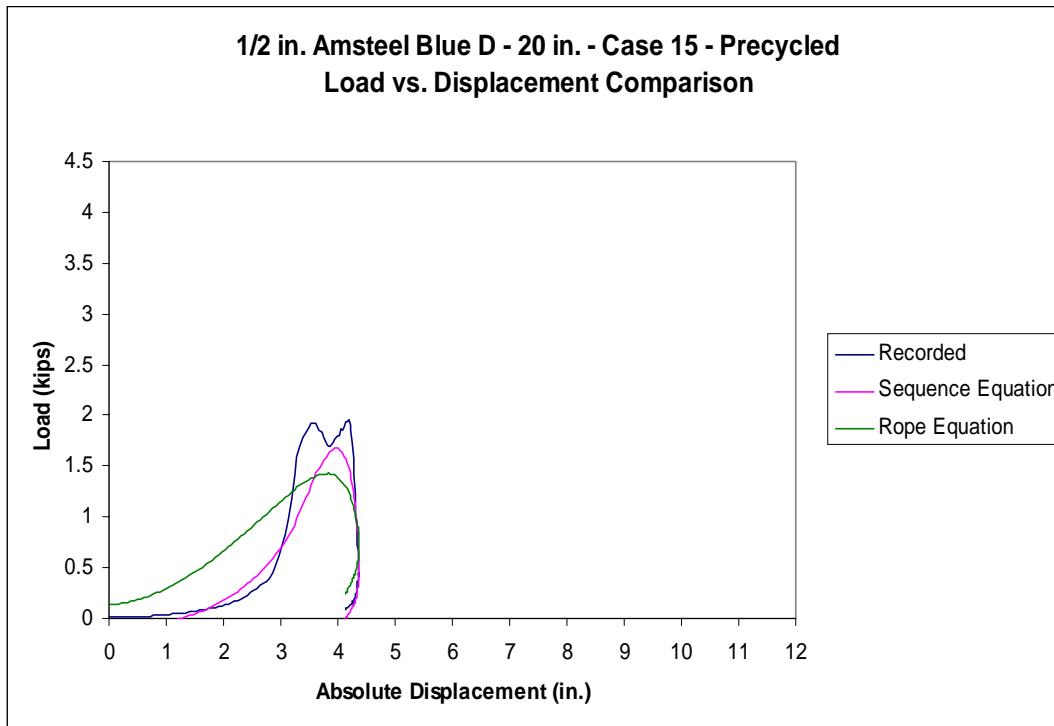


Figure C.3.27: Load vs. Displacement – Amsteel Blue D – Precycled – Cycle 15

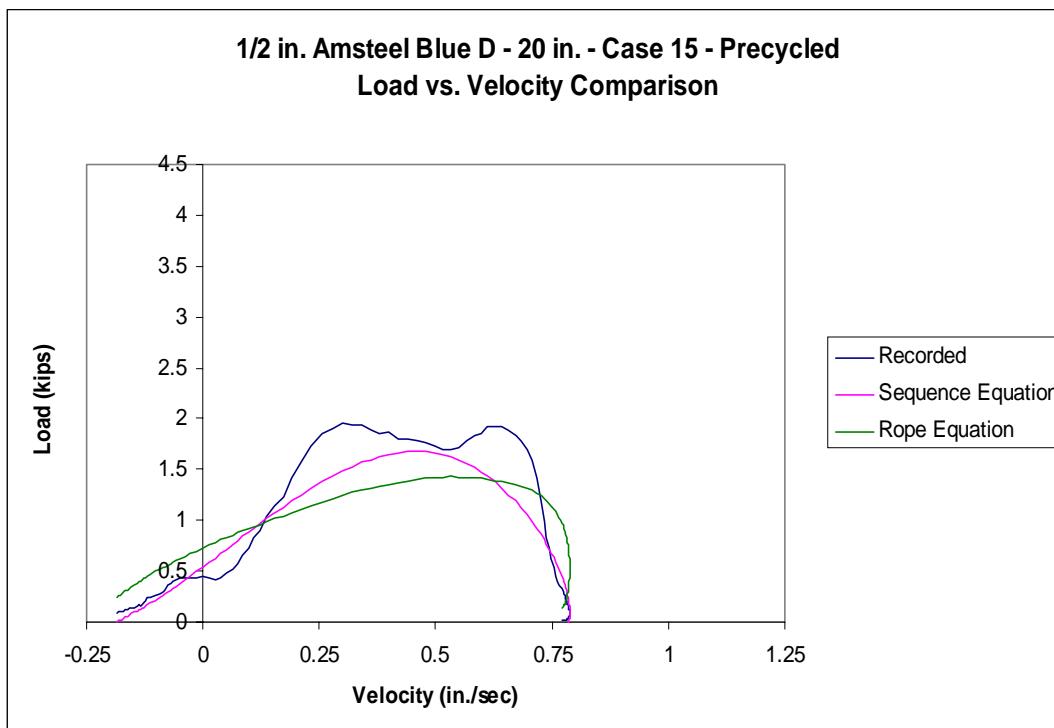


Figure C.3.28: Load vs. Velocity – Amsteel Blue D – Precycled – Cycle 15

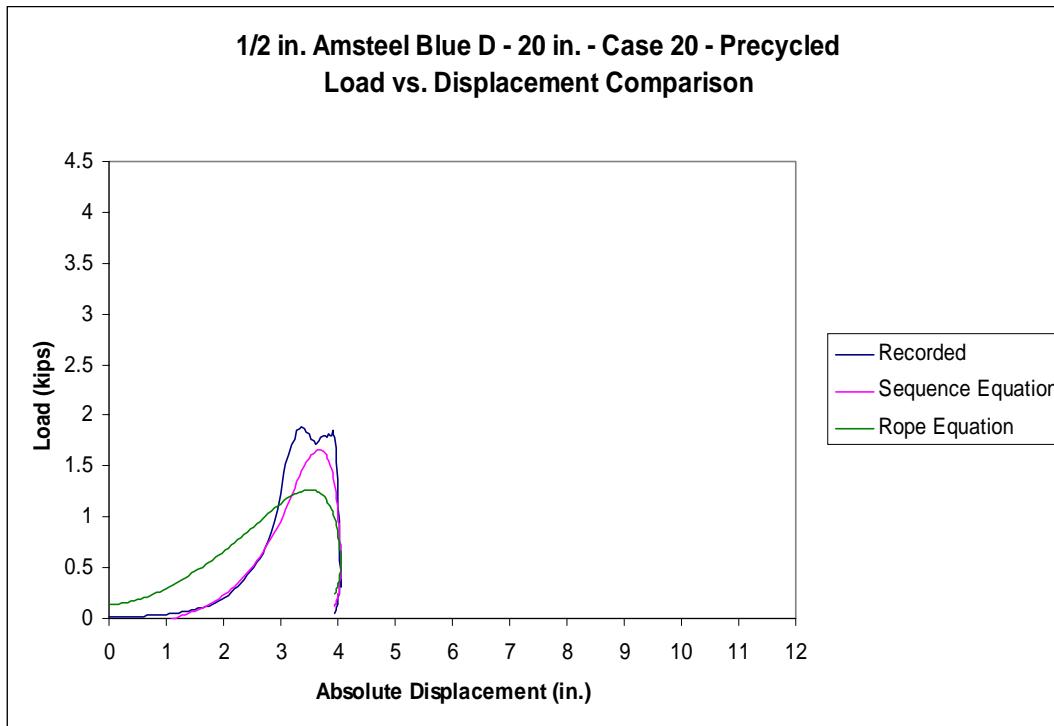


Figure C.3.29: Load vs. Displacement – Amsteel Blue D – Precycled – Cycle 20

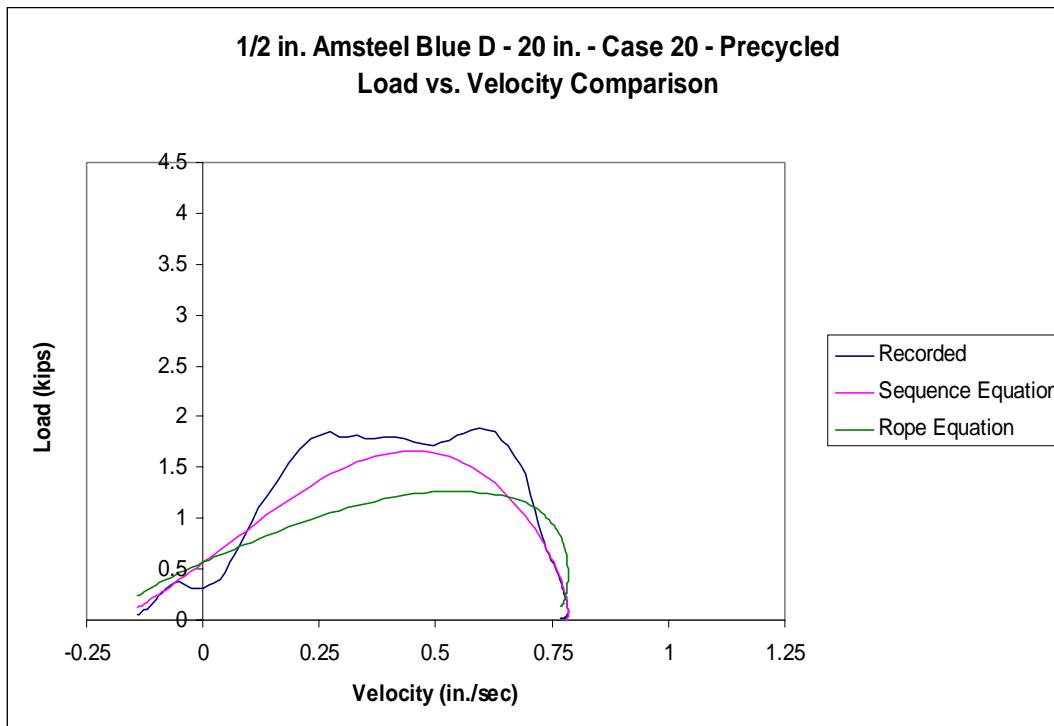


Figure C.3.30: Load vs. Velocity – Amsteel Blue D – Precycled – Cycle 20

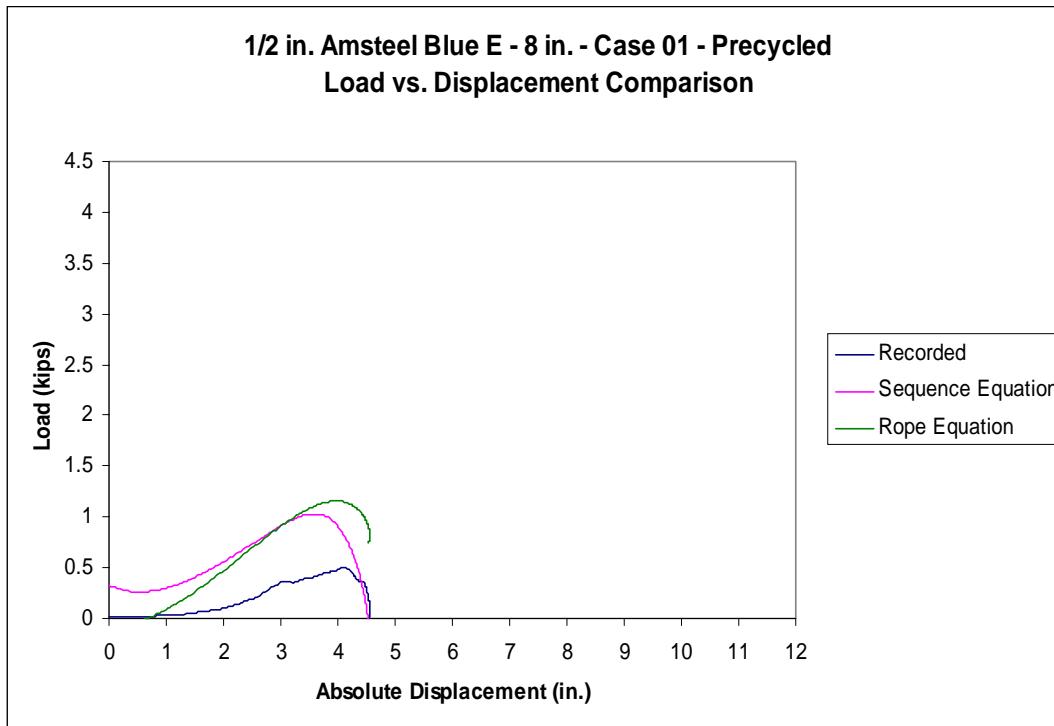


Figure C.3.31: Load vs. Displacement – Amsteel Blue E – Precycled – Cycle 1

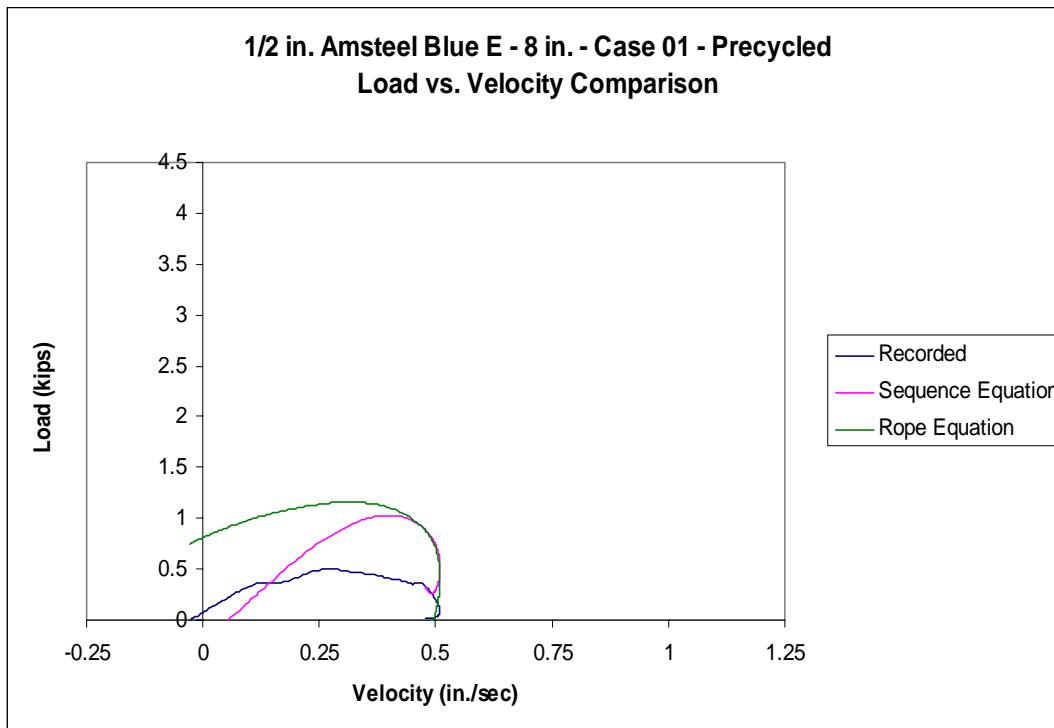


Figure C.3.32: Load vs. Velocity – Amsteel Blue E – Precycled – Cycle 1

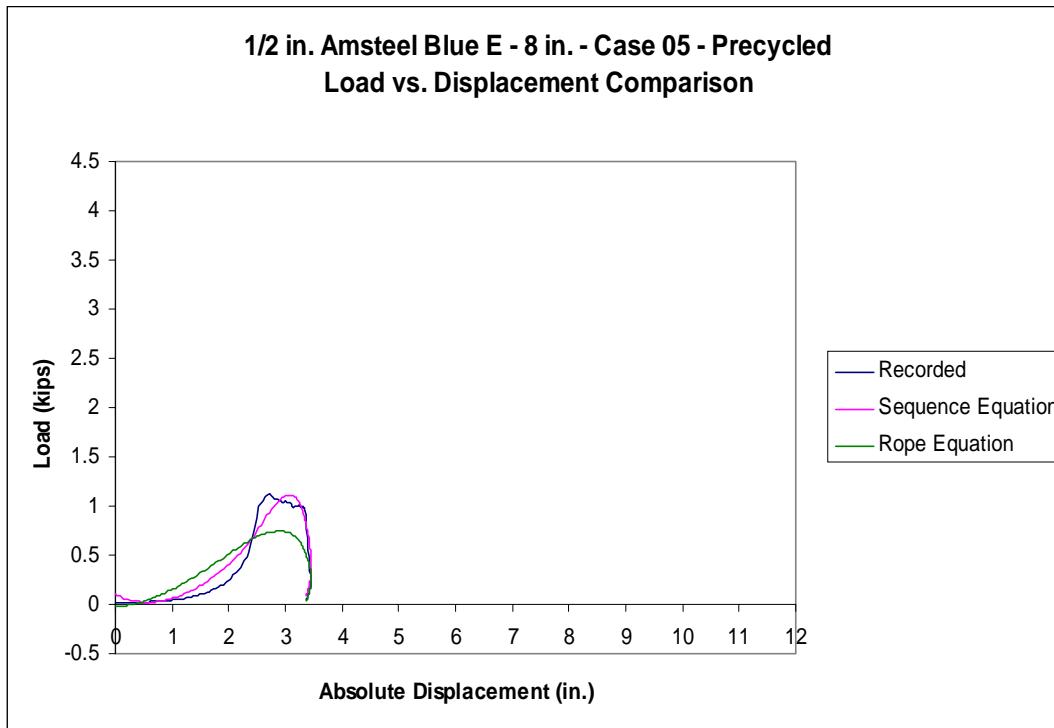


Figure C.3.33: Load vs. Displacement – Amsteel Blue E – Precycled – Cycle 5

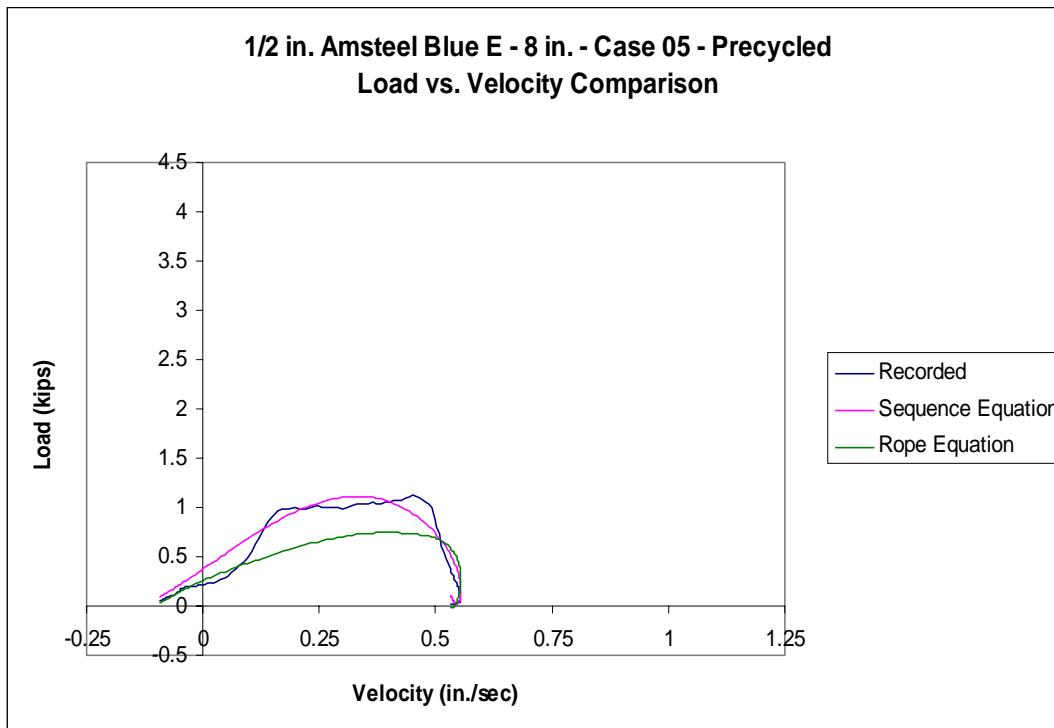


Figure C.3.34: Load vs. Velocity – Amsteel Blue E – Precycled – Cycle 5

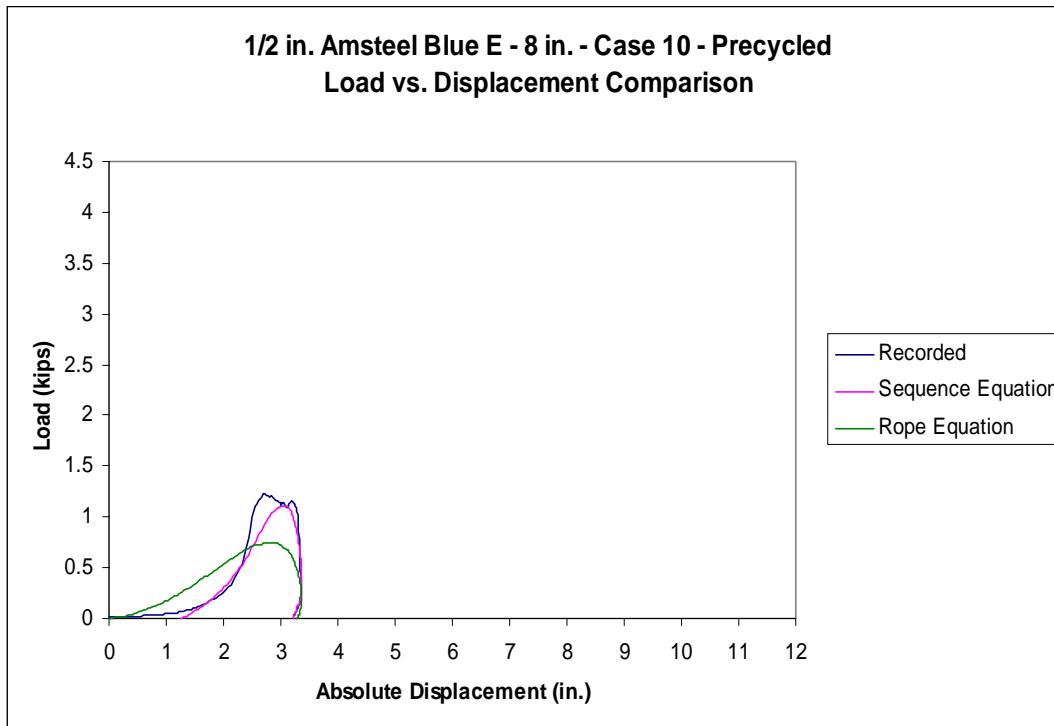


Figure C.3.35: Load vs. Displacement – Amsteel Blue E – Precycled – Cycle 10

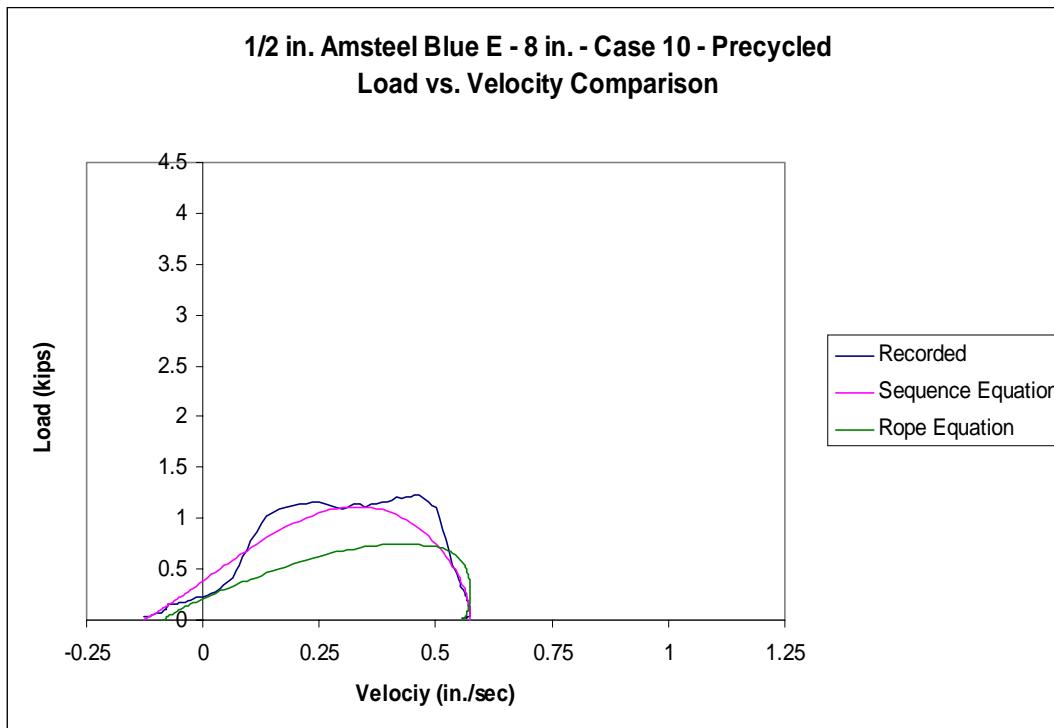


Figure C.3.36: Load vs. Velocity – Amsteel Blue E – Precycled – Cycle 10

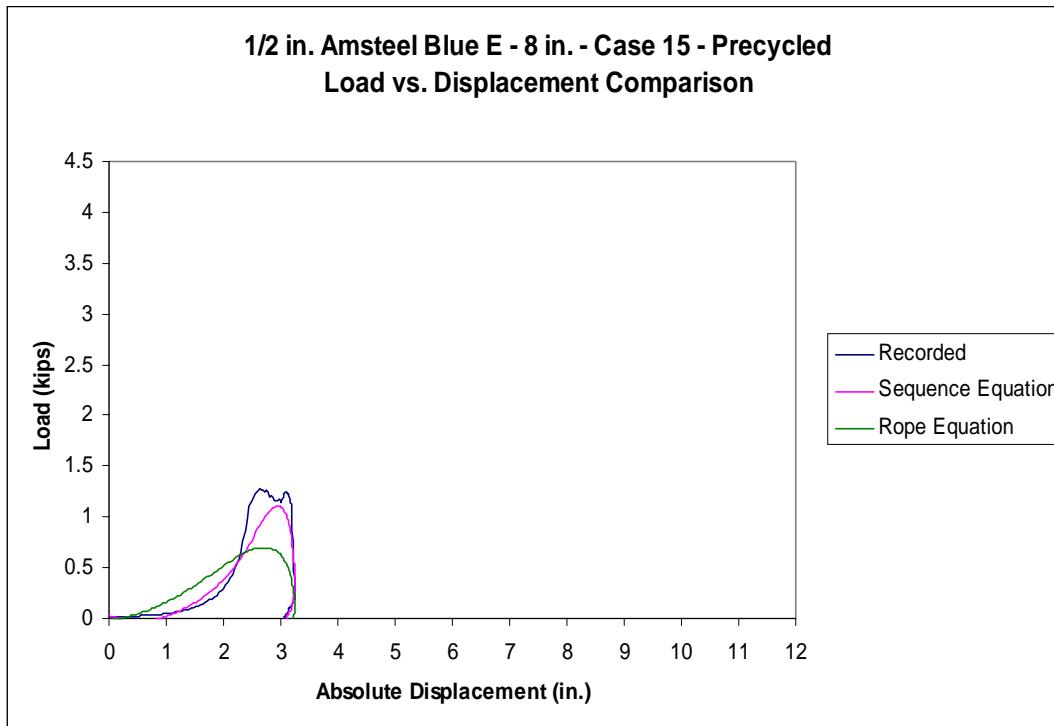


Figure C.3.37: Load vs. Displacement – Amsteel Blue E – Precycled – Cycle 15

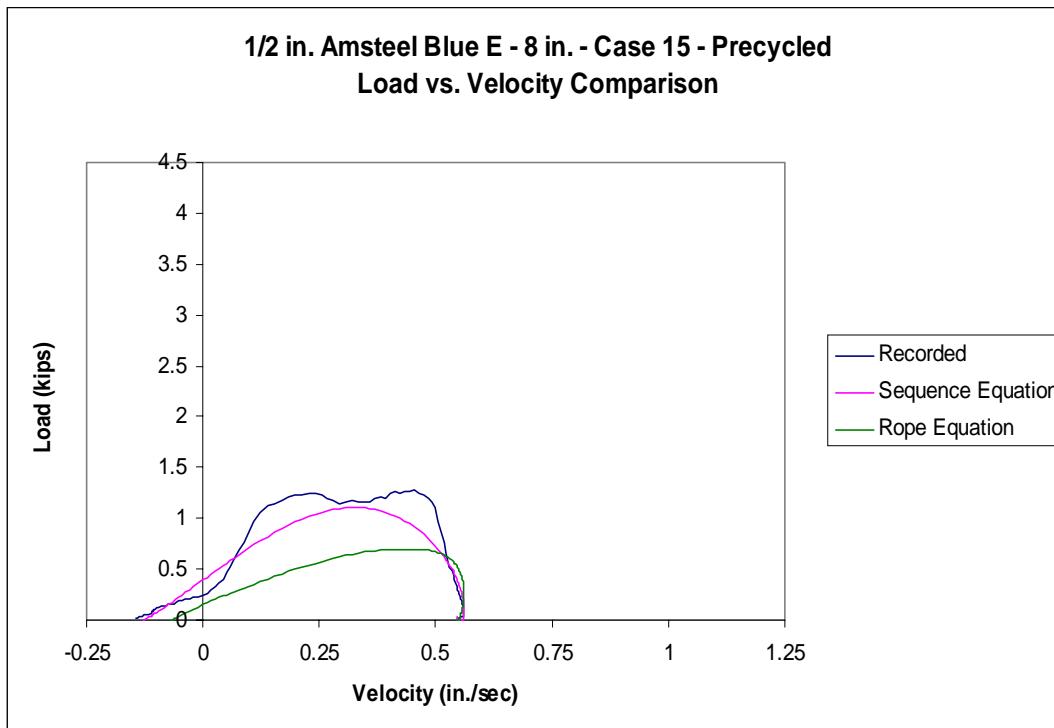


Figure C.3.38: Load vs. Velocity – Amsteel Blue E – Precycled – Cycle 15

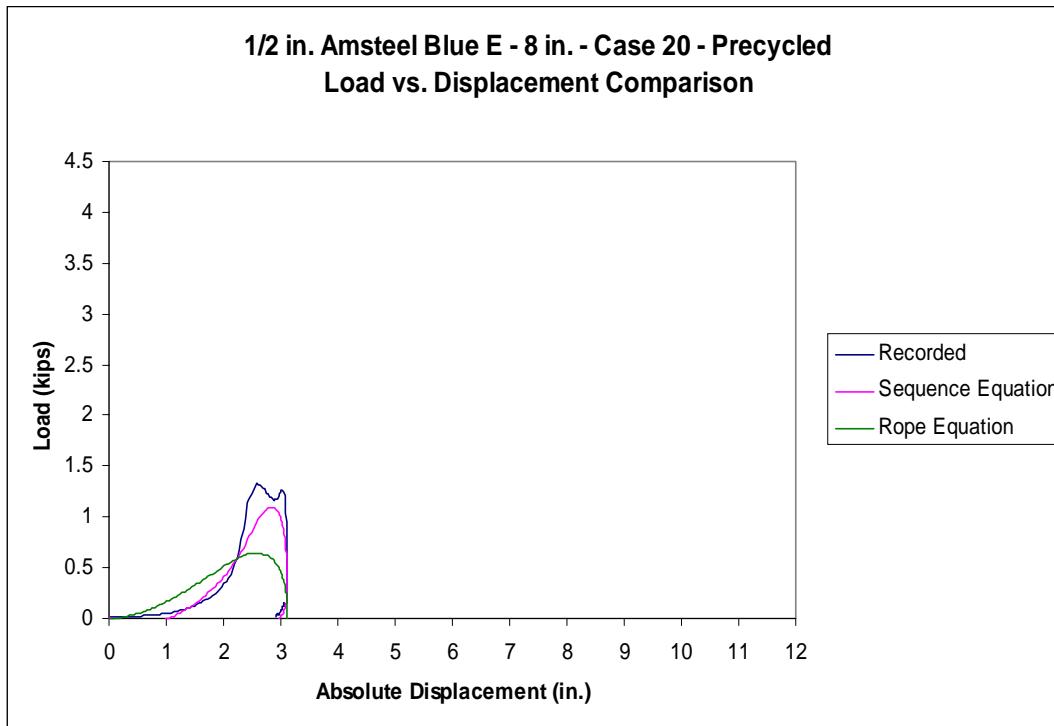


Figure C.3.39: Load vs. Displacement – Amsteel Blue E – Precycled – Cycle 20

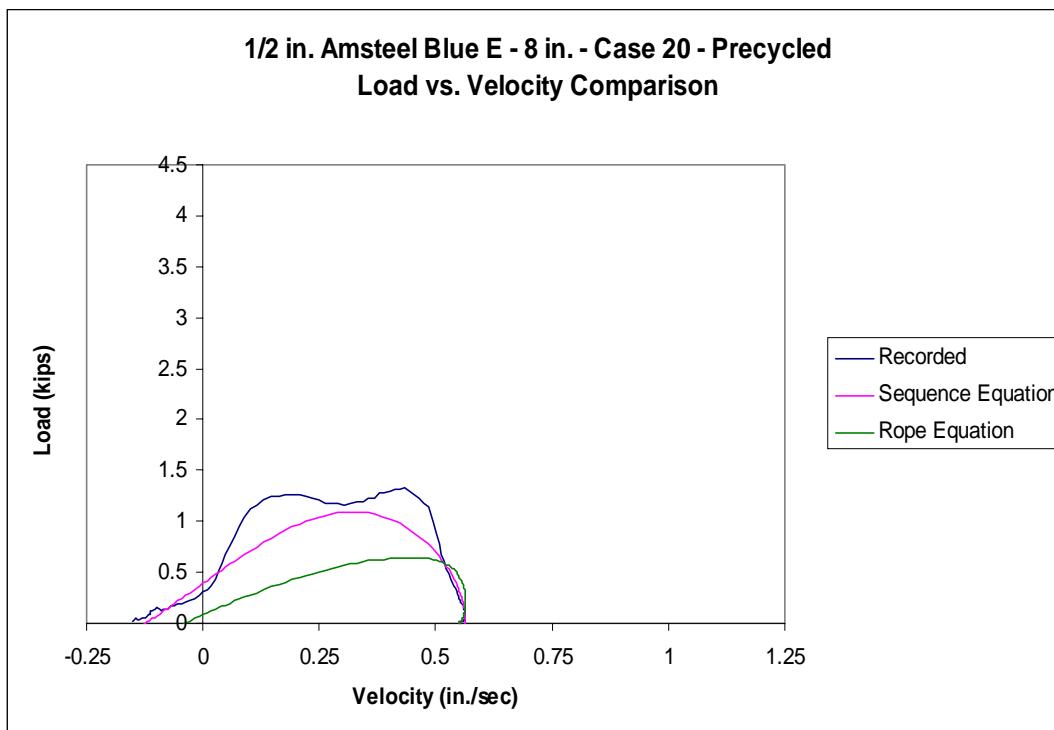


Figure C.3.40: Load vs. Velocity – Amsteel Blue E – Precycled – Cycle 20

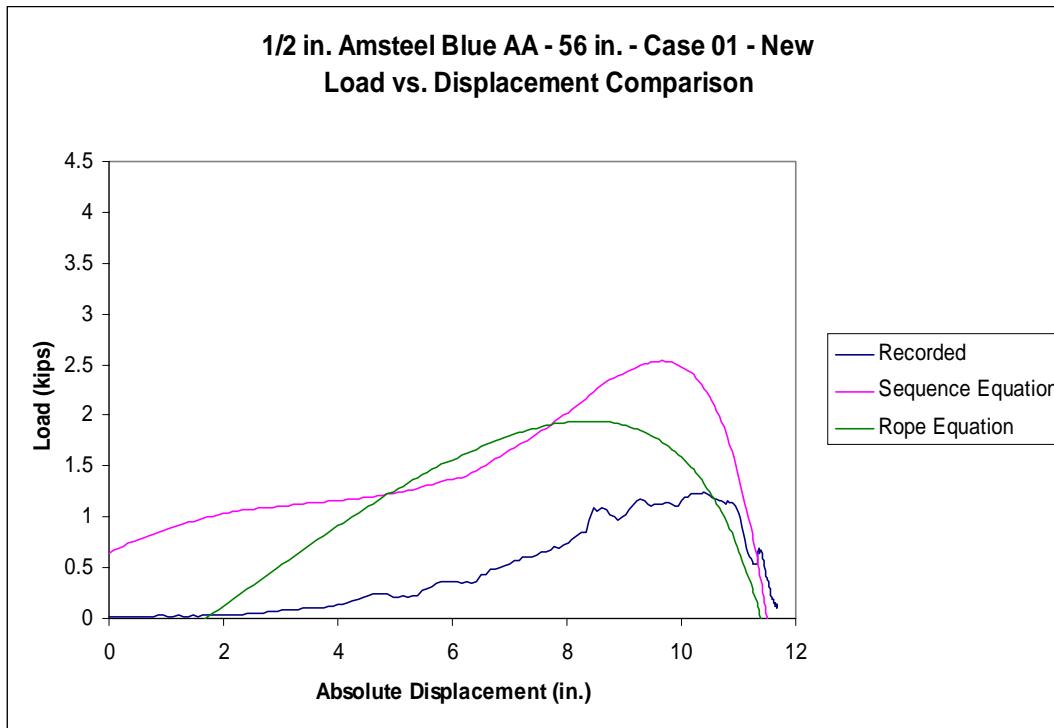


Figure C.3.41: Load vs. Displacement – Amsteel Blue AA – New – Cycle 1

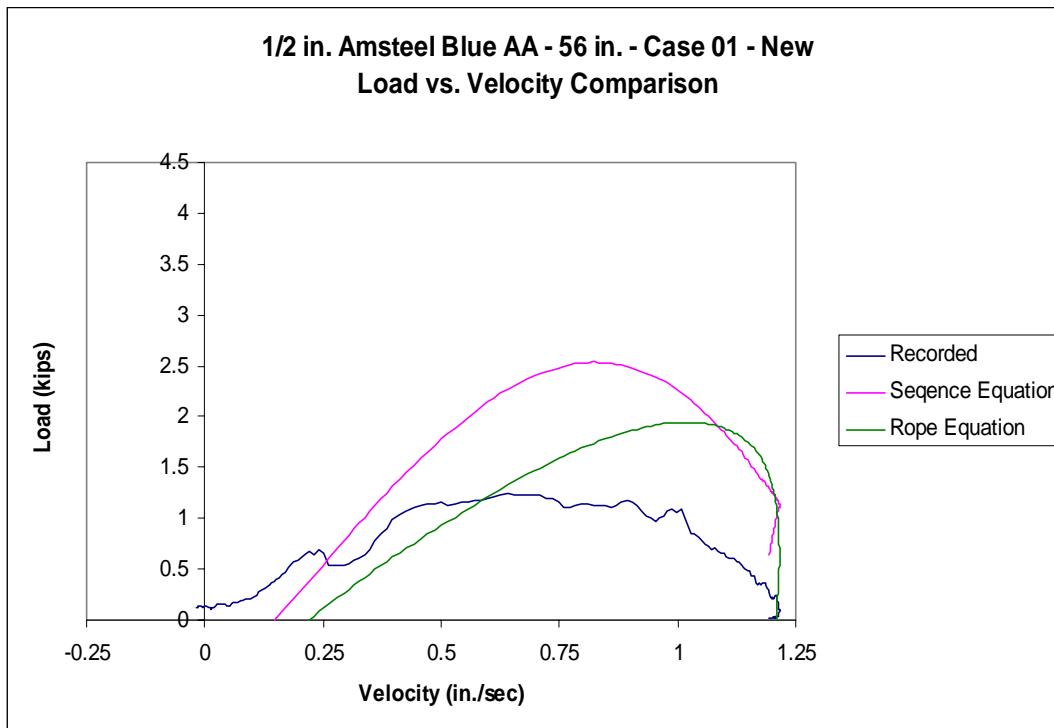


Figure C.3.42: Load vs. Velocity – Amsteel Blue AA – New – Cycle 1

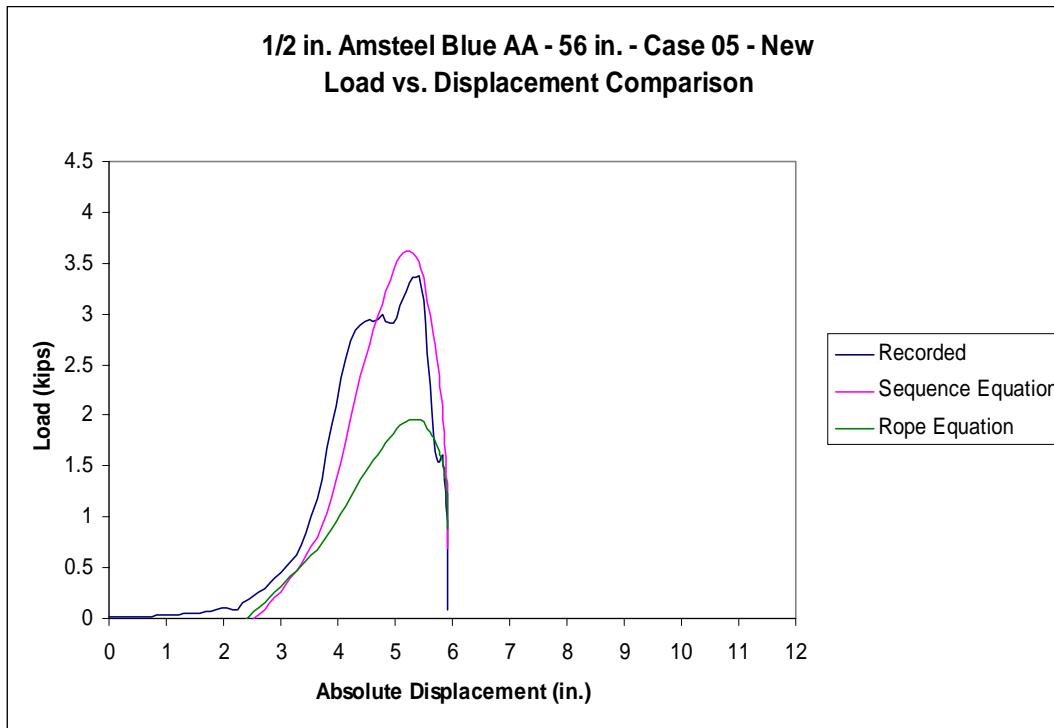


Figure C.3.43: Load vs. Displacement – Amsteel Blue AA – New – Cycle 5

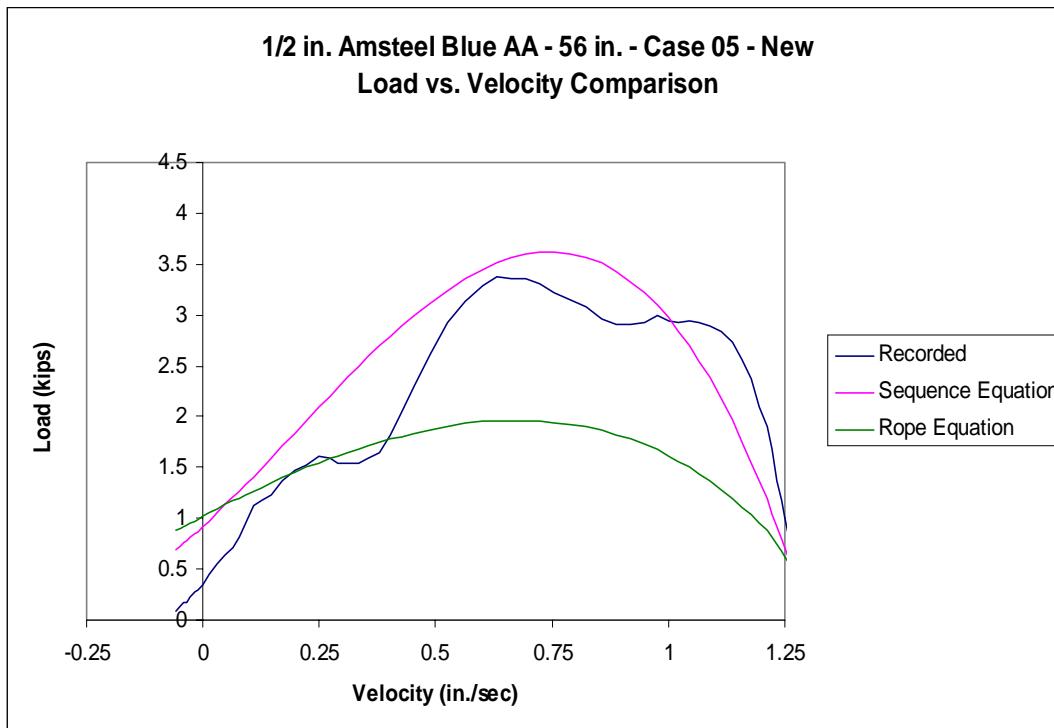


Figure C.3.44: Load vs. Velocity – Amsteel Blue AA – New – Cycle 5

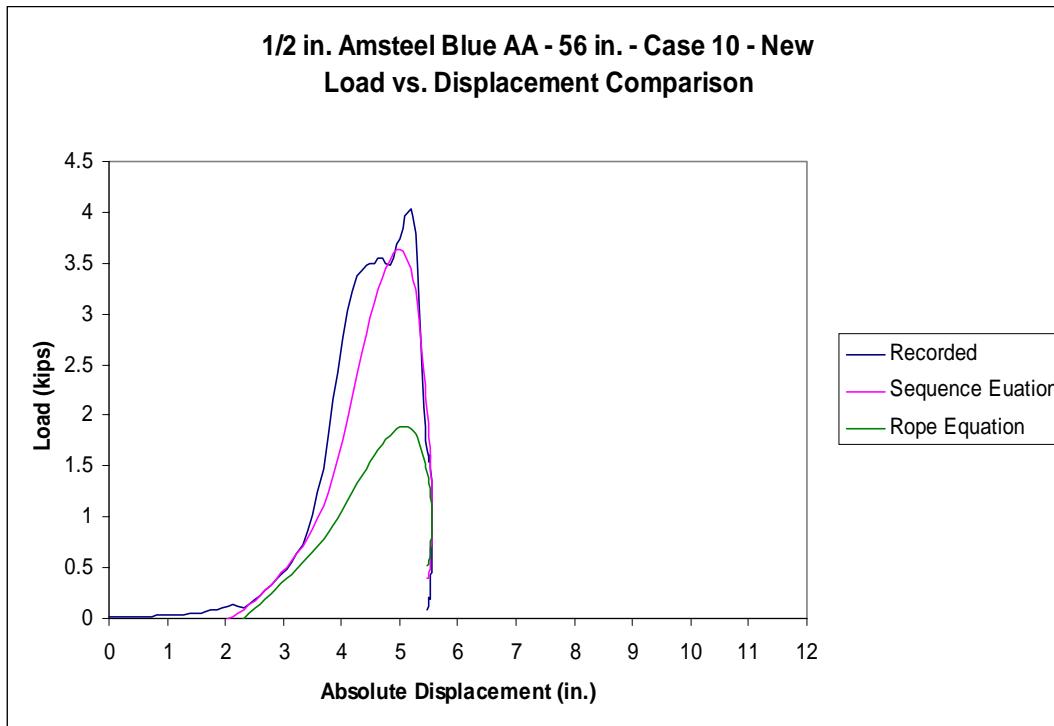


Figure C.3.45: Load vs. Displacement – Amsteel Blue AA – New – Cycle 10

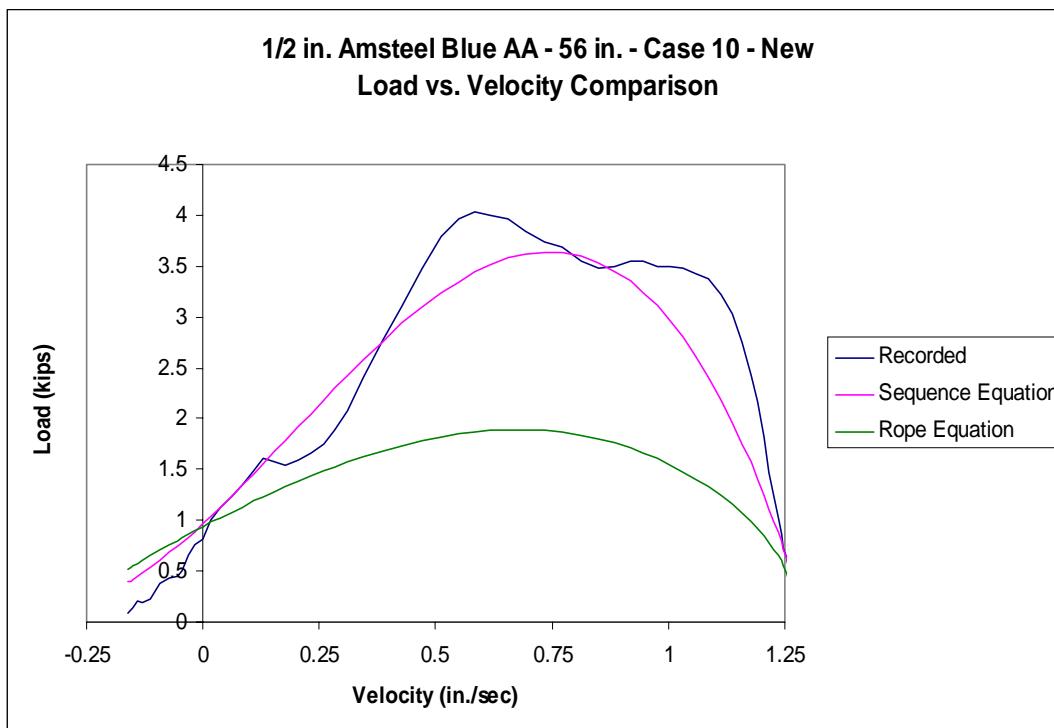


Figure C.3.46: Load vs. Velocity – Amsteel Blue AA – New – Cycle 10

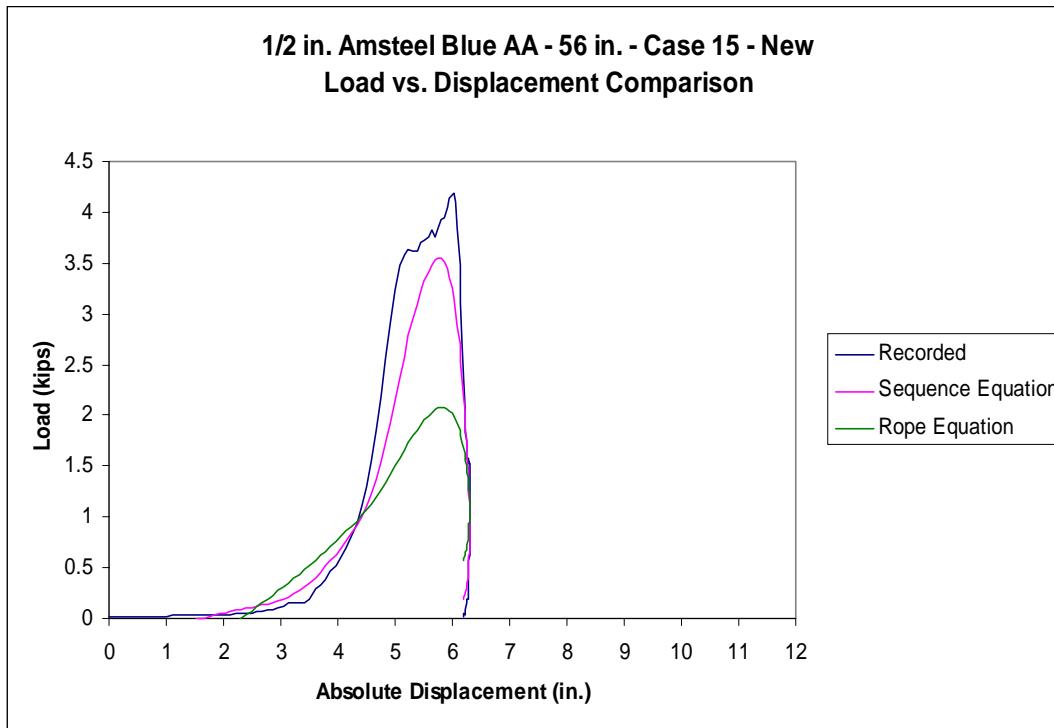


Figure C.3.47: Load vs. Displacement – Amsteel Blue AA – New – Cycle 15

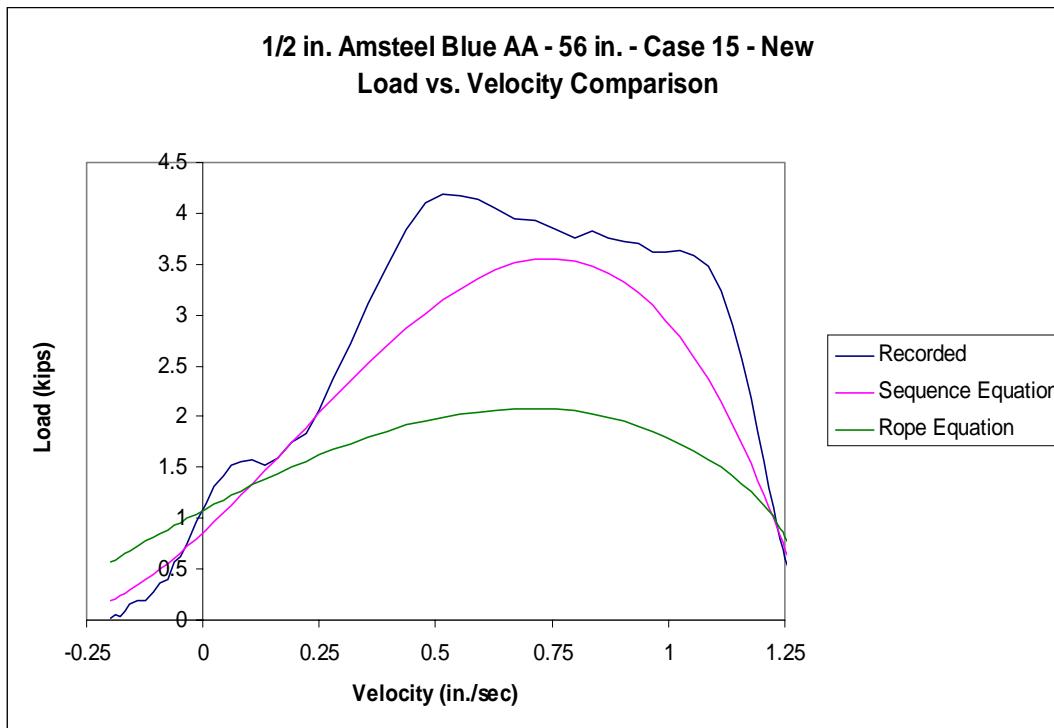


Figure C.3.48: Load vs. Velocity – Amsteel Blue AA – New – Cycle 15

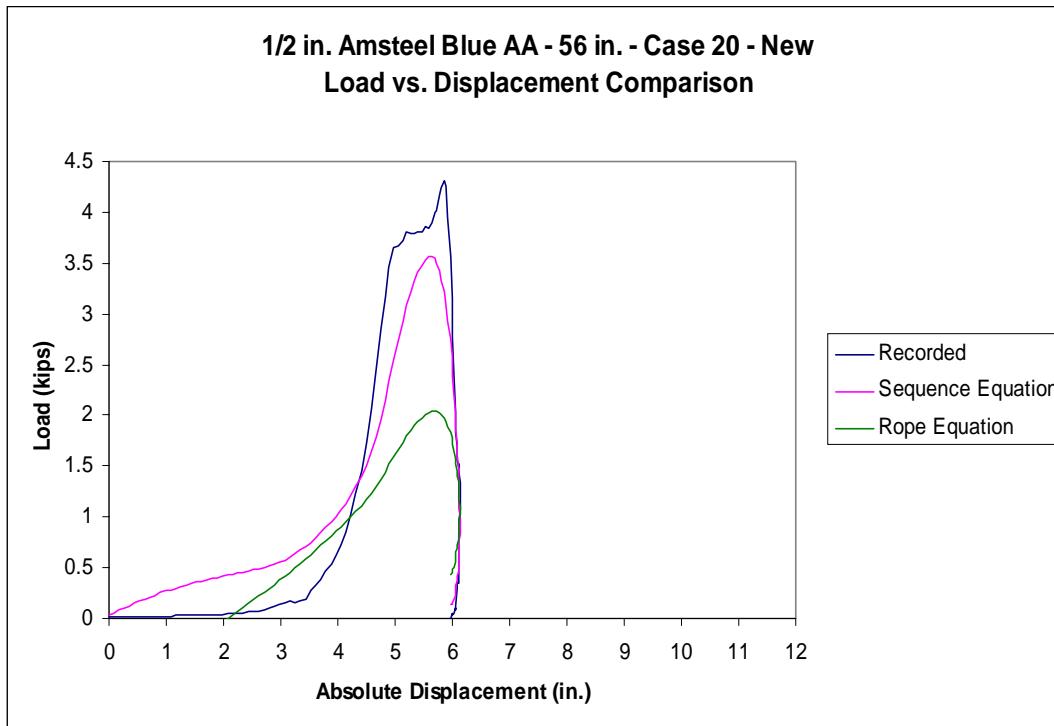


Figure C.3.49: Load vs. Displacement – Amsteel Blue AA – New – Cycle 20

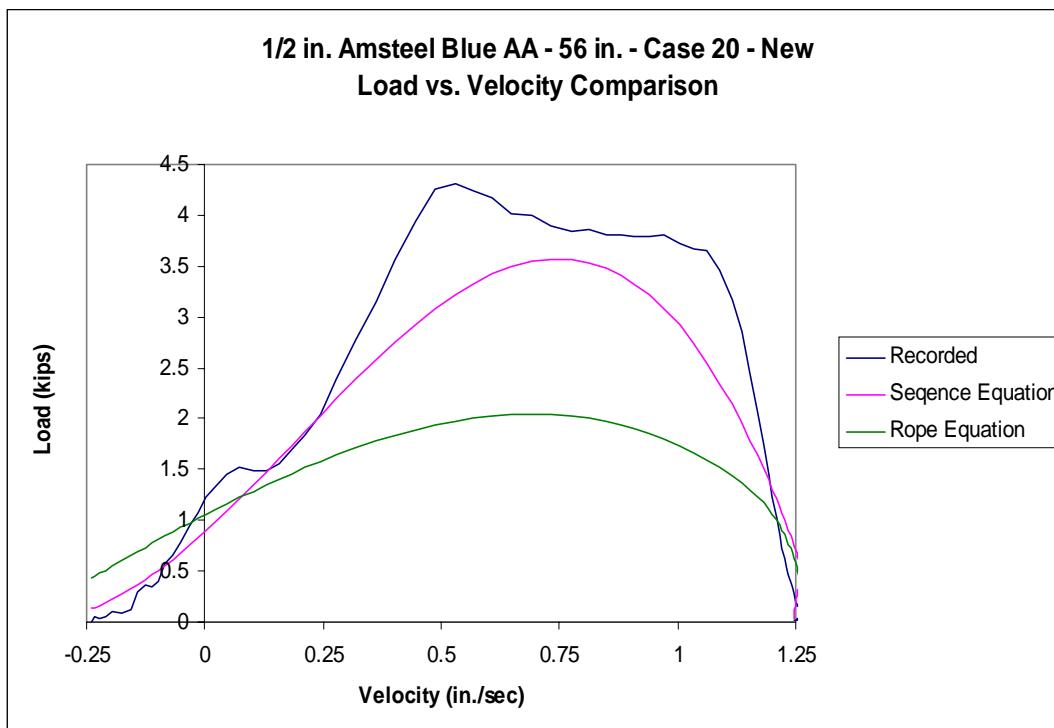


Figure C.3.50: Load vs. Velocity – Amsteel Blue AA – New – Cycle 20

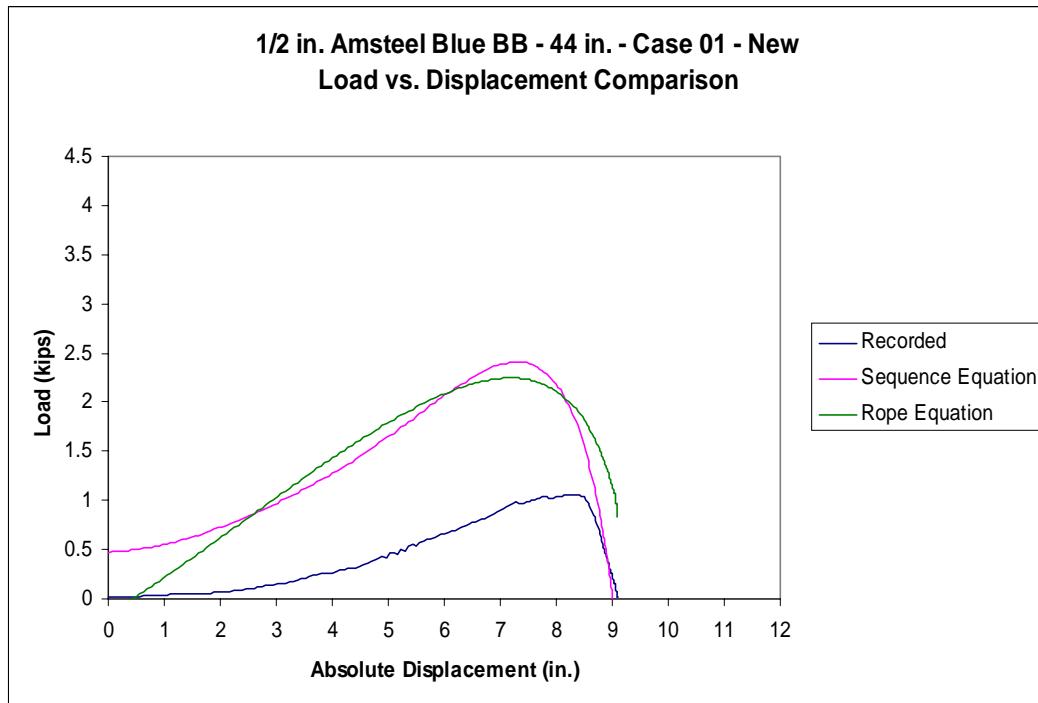


Figure C.3.51: Load vs. Displacement – Amsteel Blue BB – New – Cycle 1

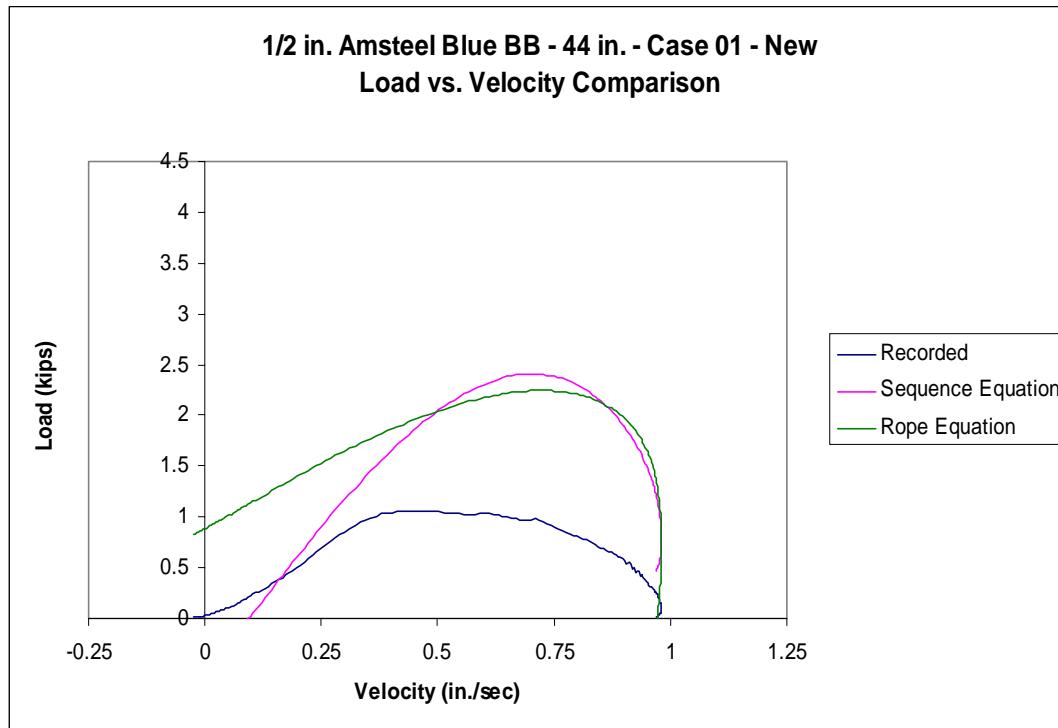


Figure C.3.52: Load vs. Velocity – Amsteel Blue BB – New – Cycle 1

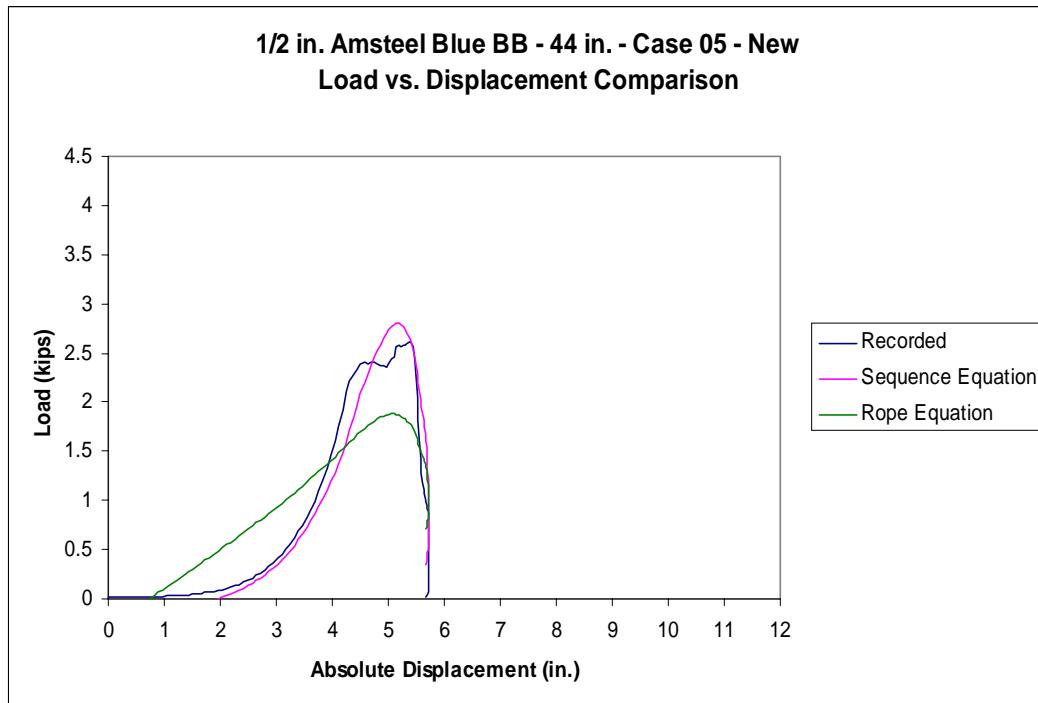


Figure C.3.53: Load vs. Displacement – Amsteel Blue BB – New – Cycle 5

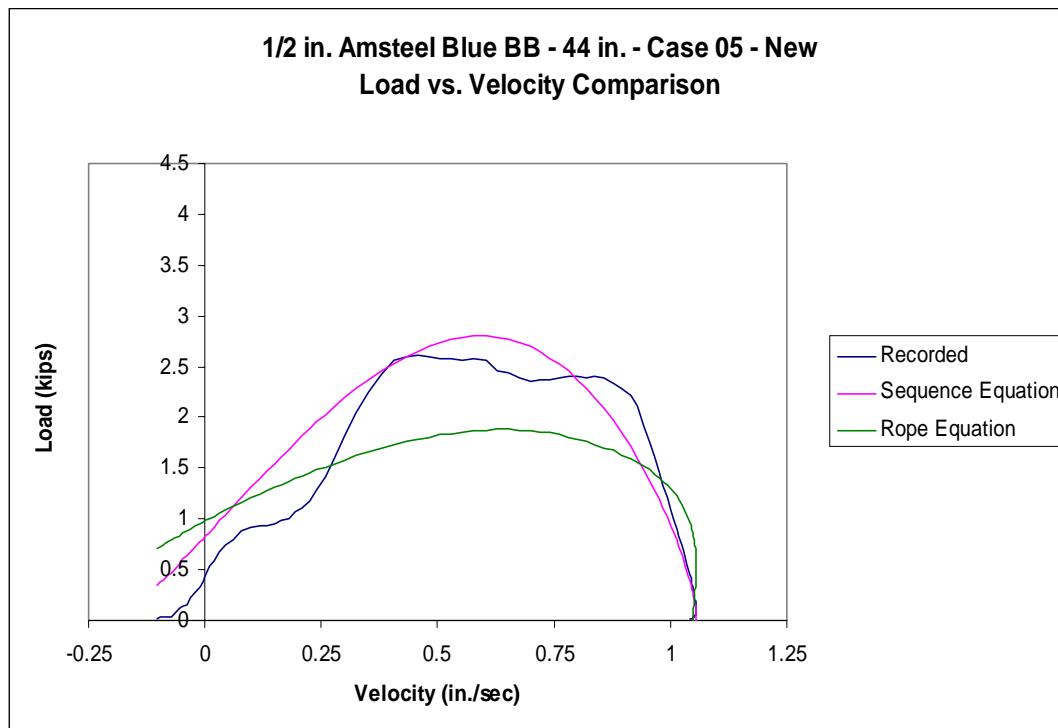


Figure C.3.54: Load vs. Velocity – Amsteel Blue BB – New – Cycle 5

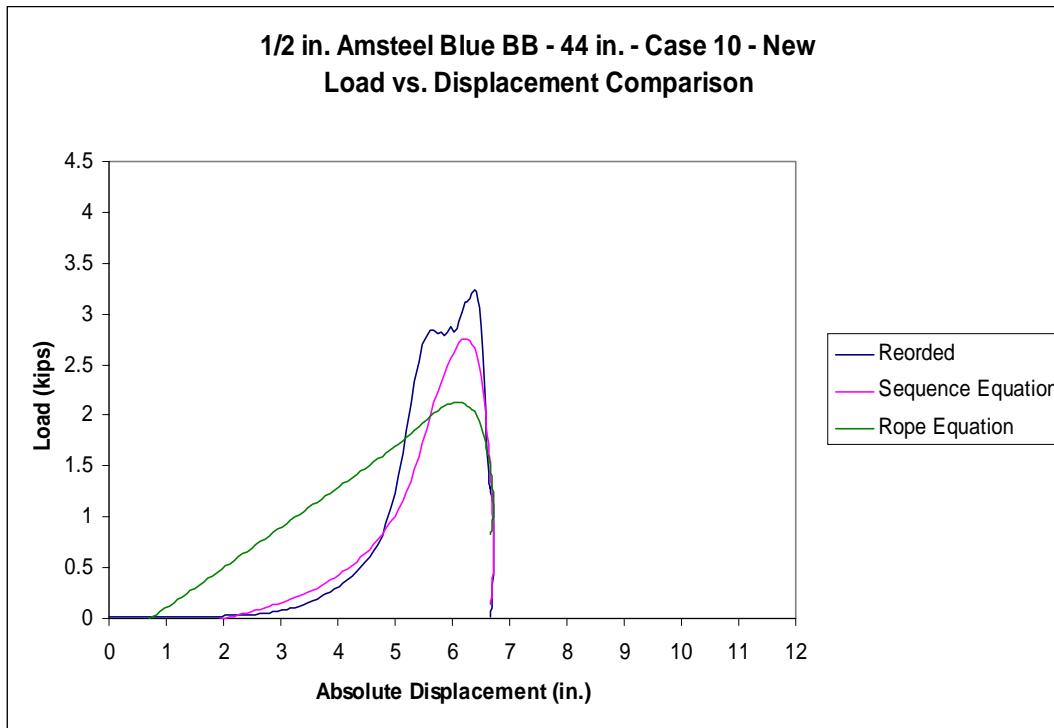


Figure C.3.55: Load vs. Displacement – Amsteel Blue BB – New – Cycle 10

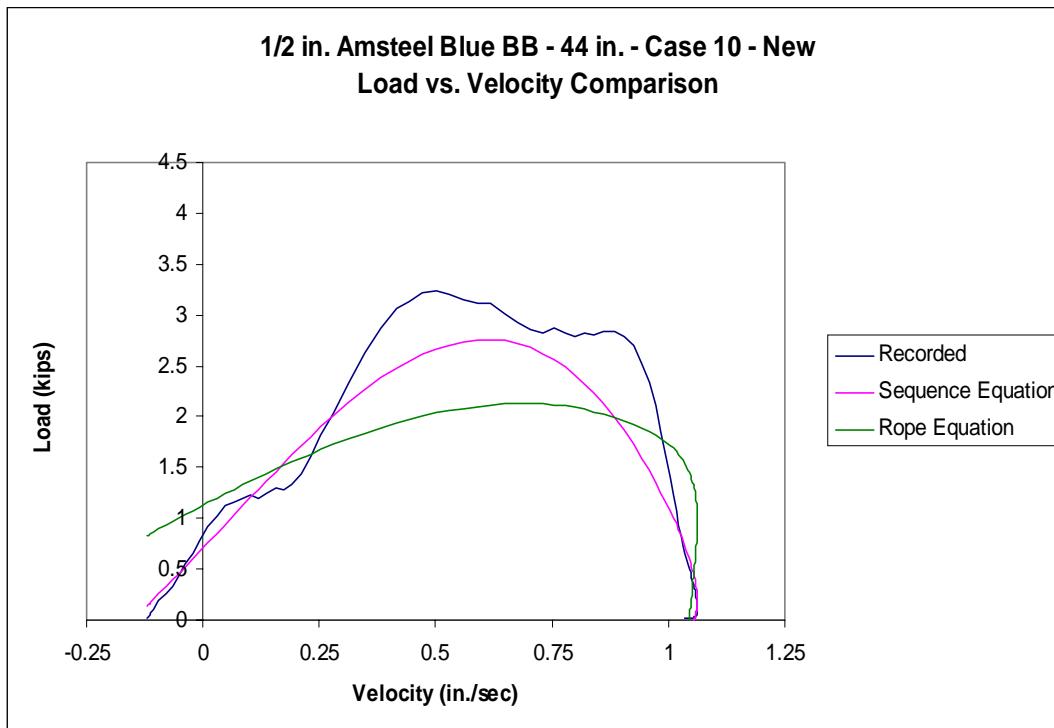


Figure C.3.56: Load vs. Velocity – Amsteel Blue BB – New – Cycle 10

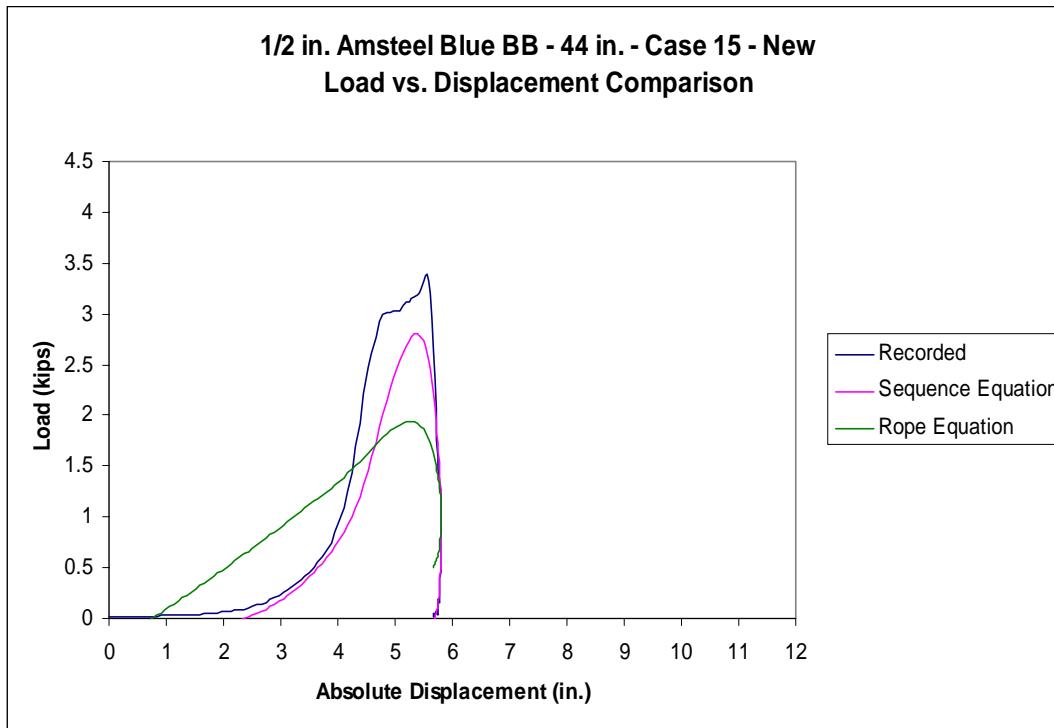


Figure C.3.57: Load vs. Displacement – Amsteel Blue BB – New – Cycle 15

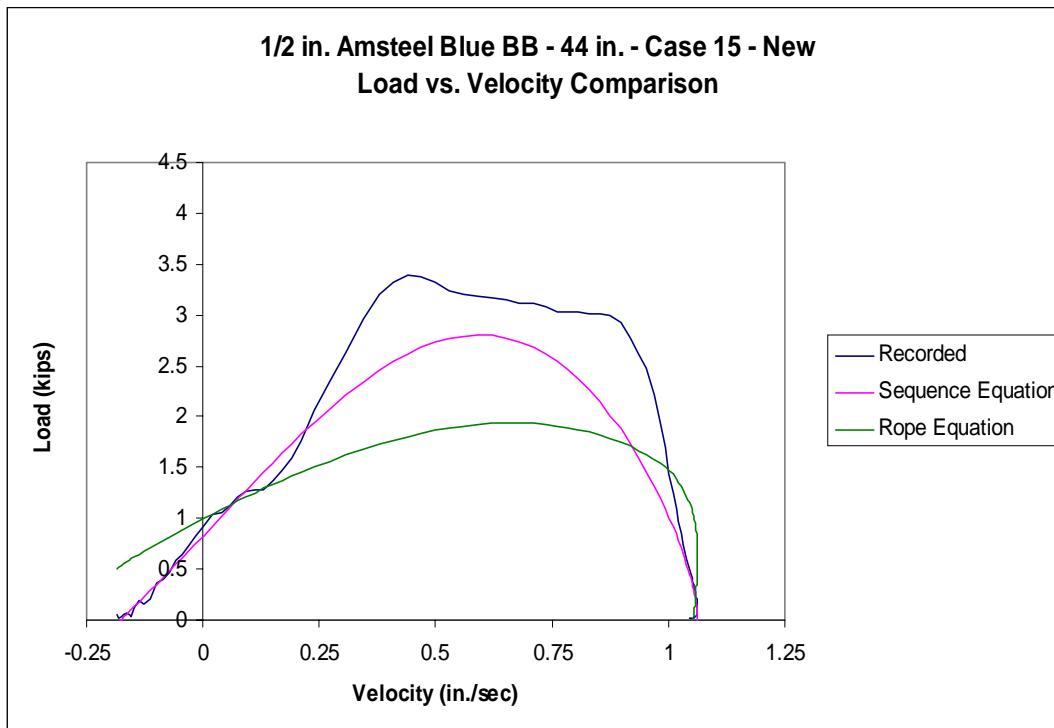


Figure C.3.58: Load vs. Velocity – Amsteel Blue BB – New – Cycle 15

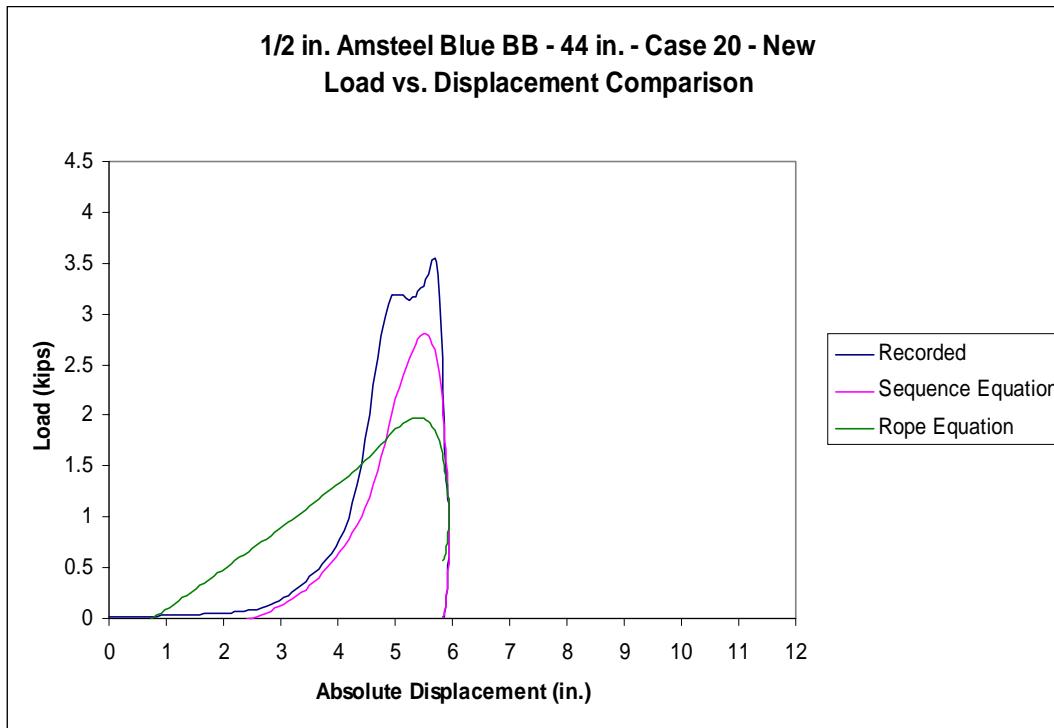


Figure C.3.59: Load vs. Displacement – Amsteel Blue BB – New – Cycle 20

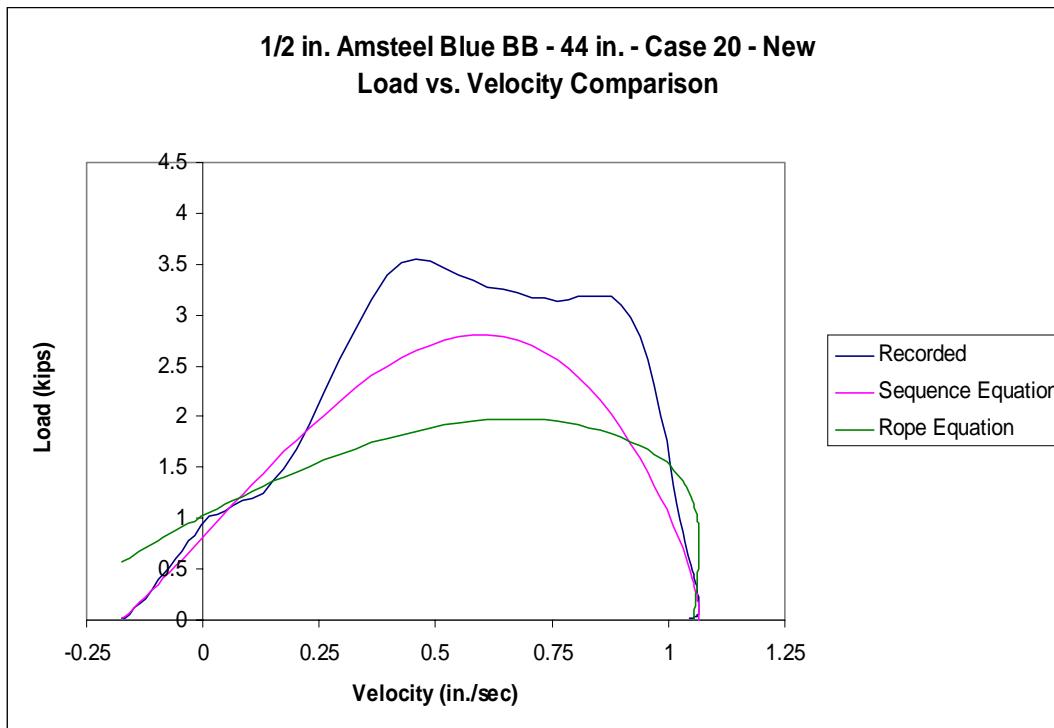


Figure C.3.60: Load vs. Velocity – Amsteel Blue BB – New – Cycle 20

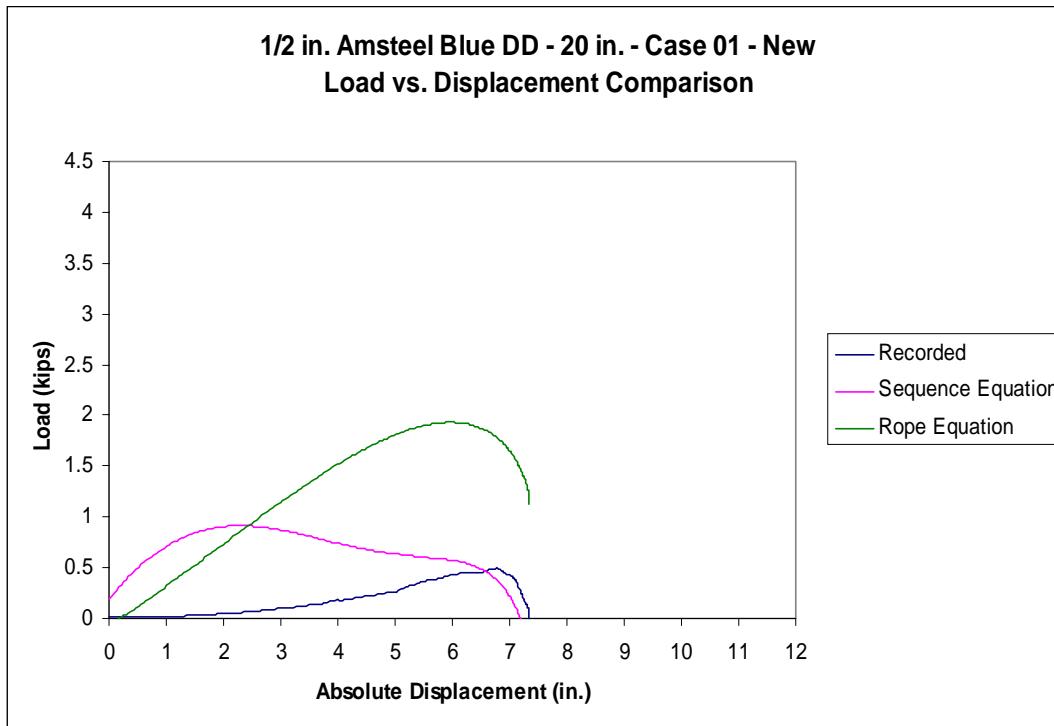


Figure C.3.61: Load vs. Displacement – Amsteel Blue DD – New – Cycle 1

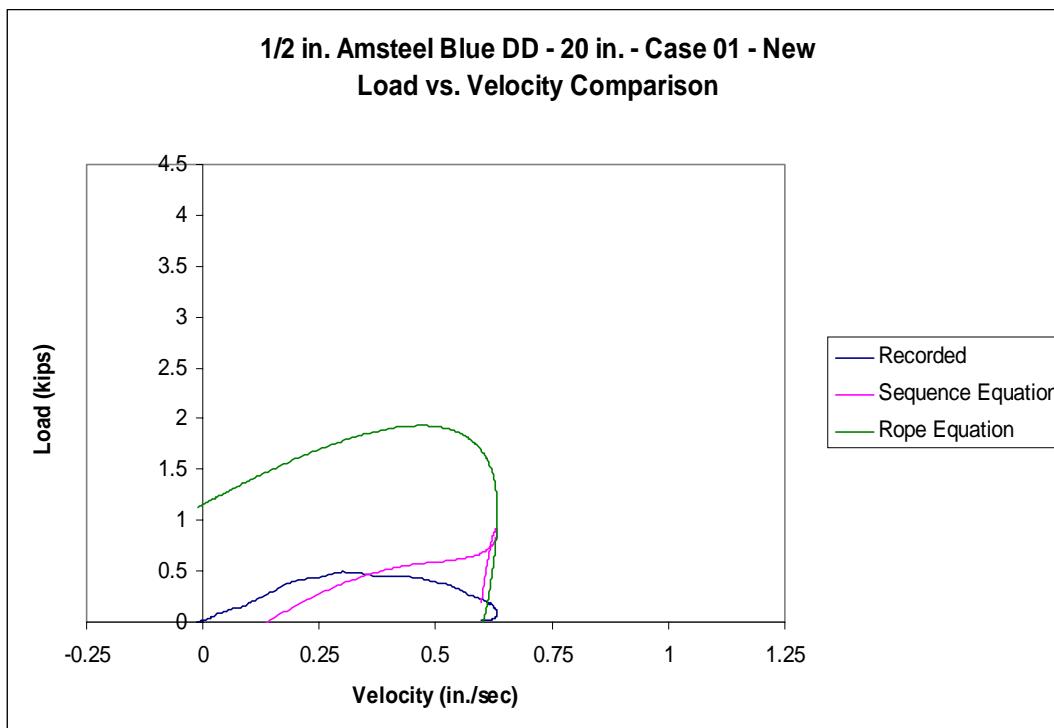


Figure C.3.62: Load vs. Velocity – Amsteel Blue DD – New – Cycle 1

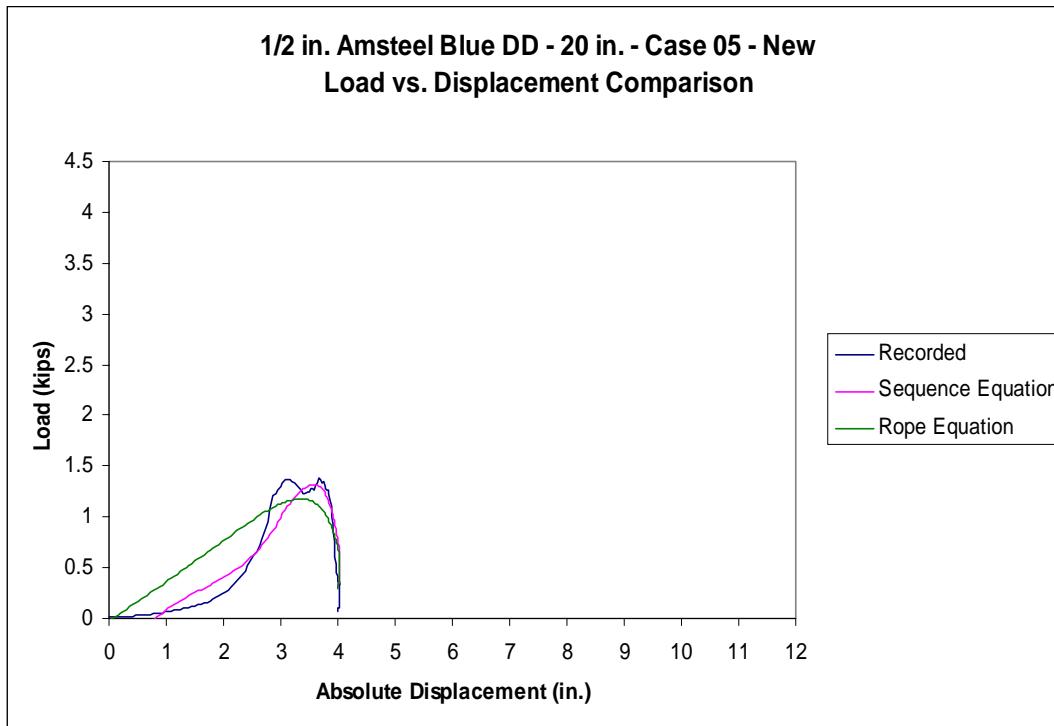


Figure C.3.63: Load vs. Displacement – Amsteel Blue DD – New – Cycle 5

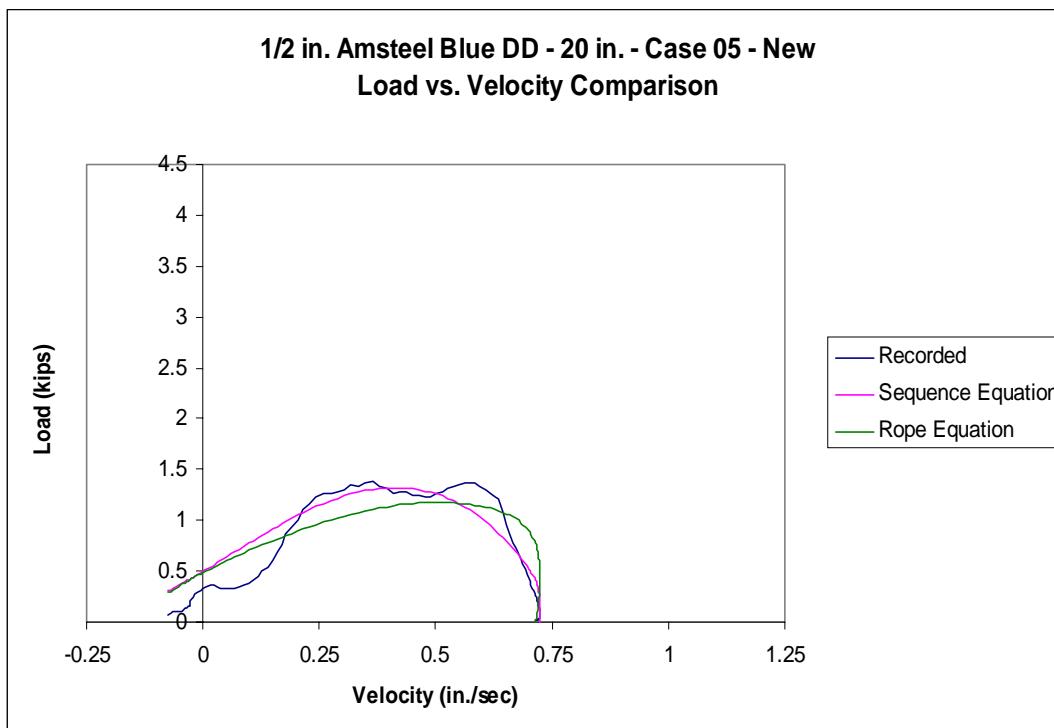


Figure C.3.64: Load vs. Velocity – Amsteel Blue DD – New – Cycle 5

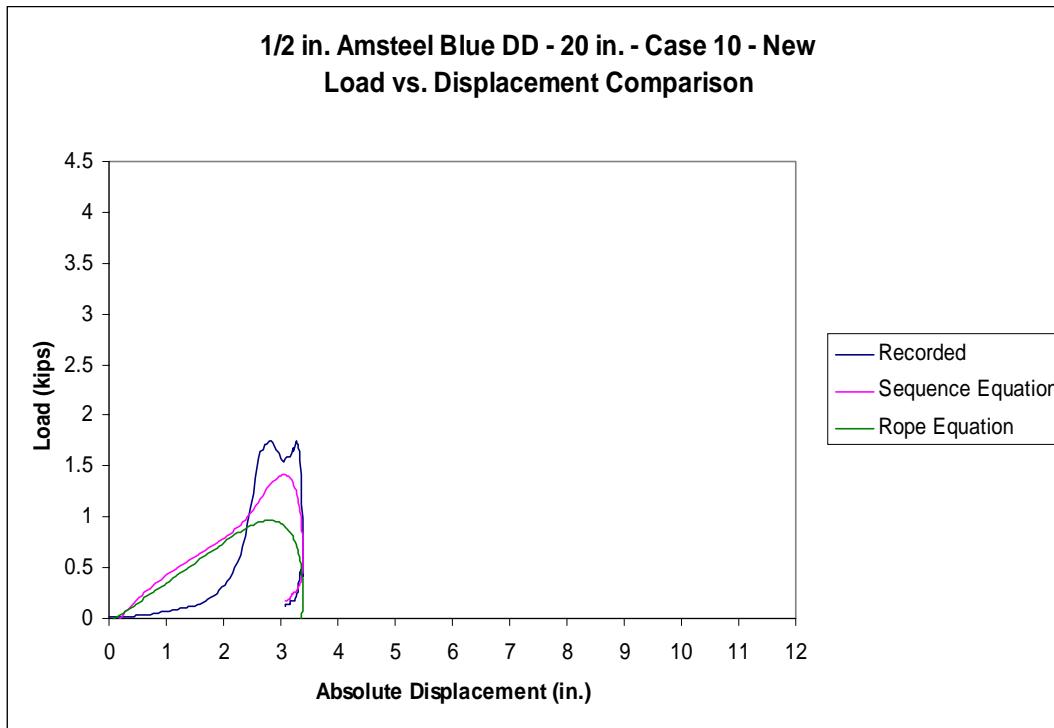


Figure C.3.65: Load vs. Displacement – Amsteel Blue DD – New – Cycle 10

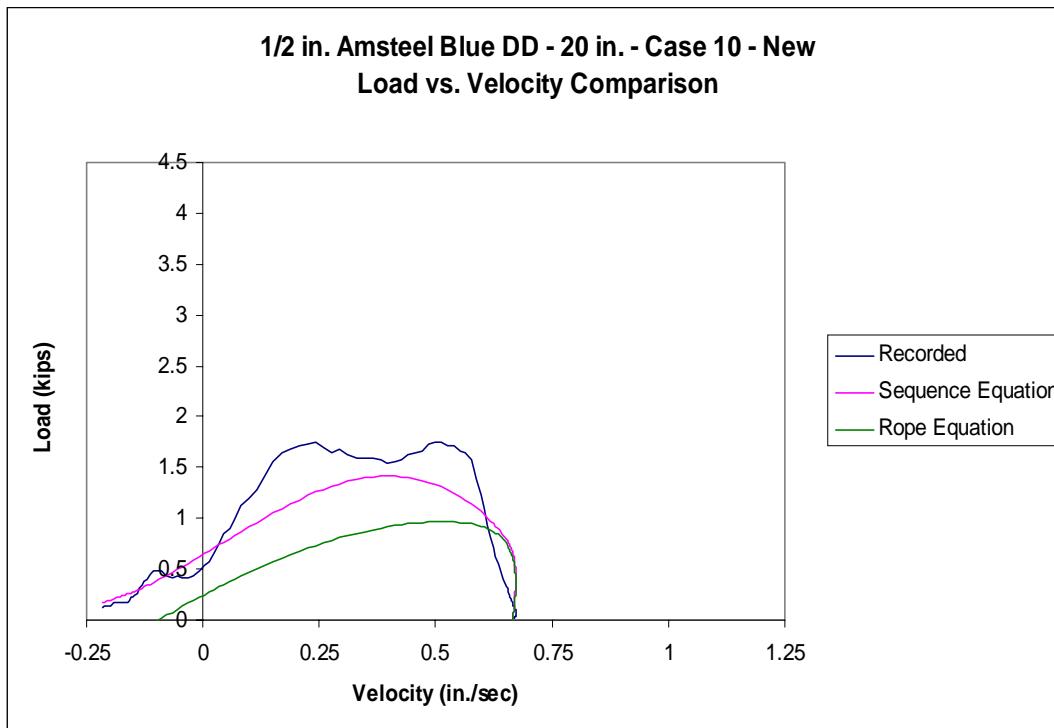


Figure C.3.66: Load vs. Velocity – Amsteel Blue DD – New – Cycle 10

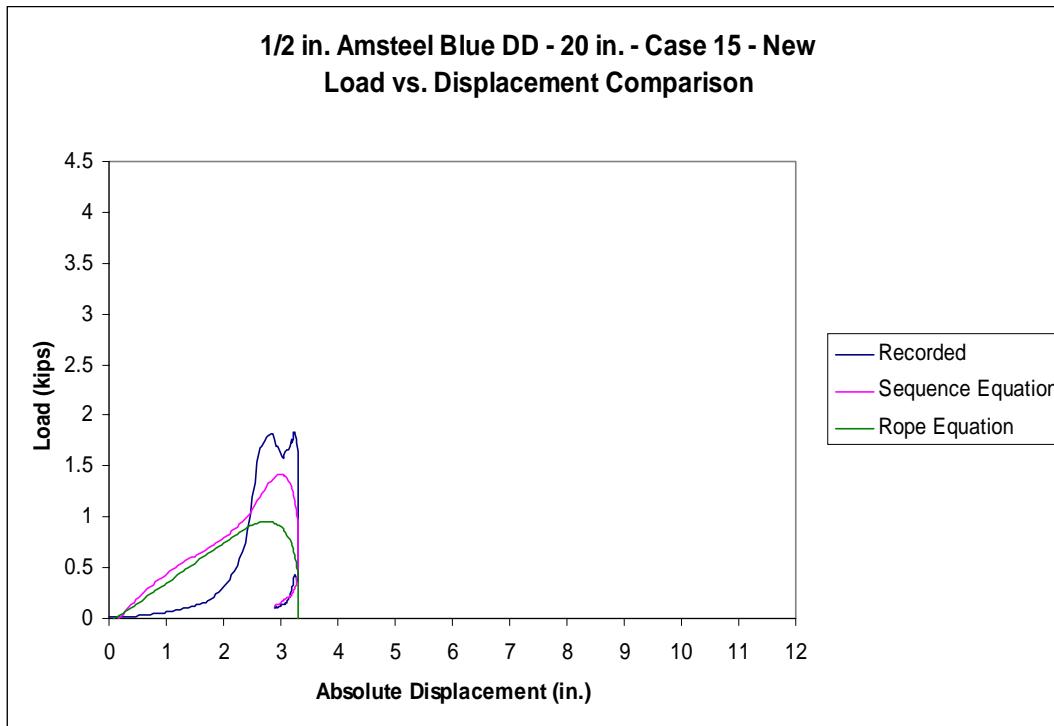


Figure C.3.67: Load vs. Displacement – Amsteel Blue DD – New – Cycle 15

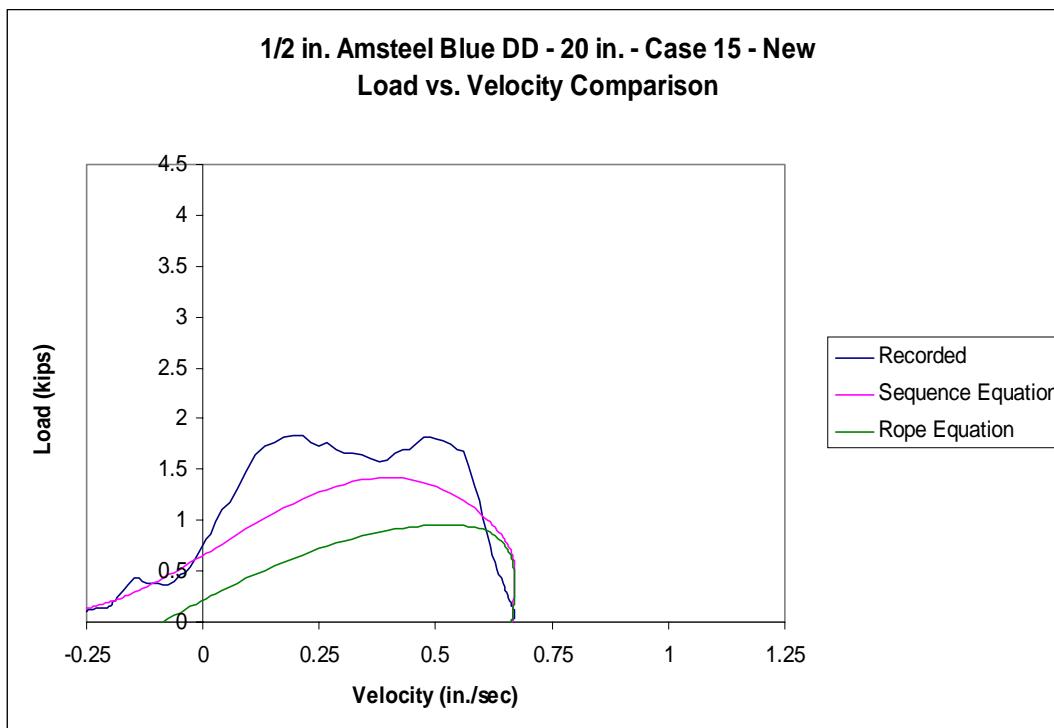


Figure C.3.68: Load vs. Velocity – Amsteel Blue DD – New – Cycle 15

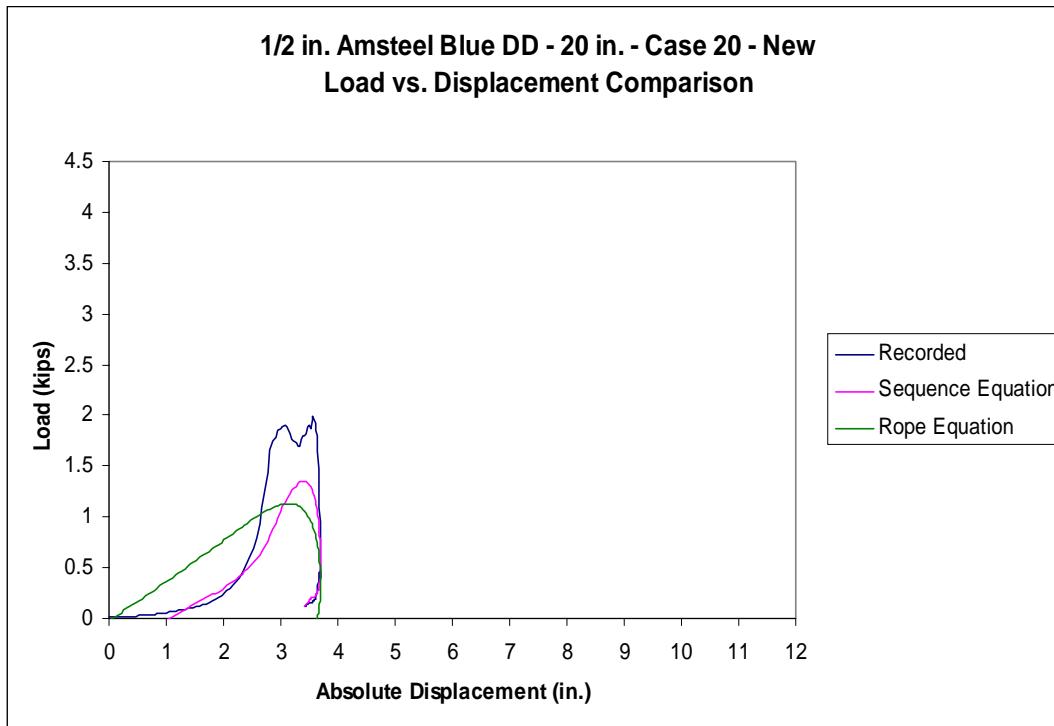


Figure C.3.69: Load vs. Displacement – Amsteel Blue DD – New – Cycle 20

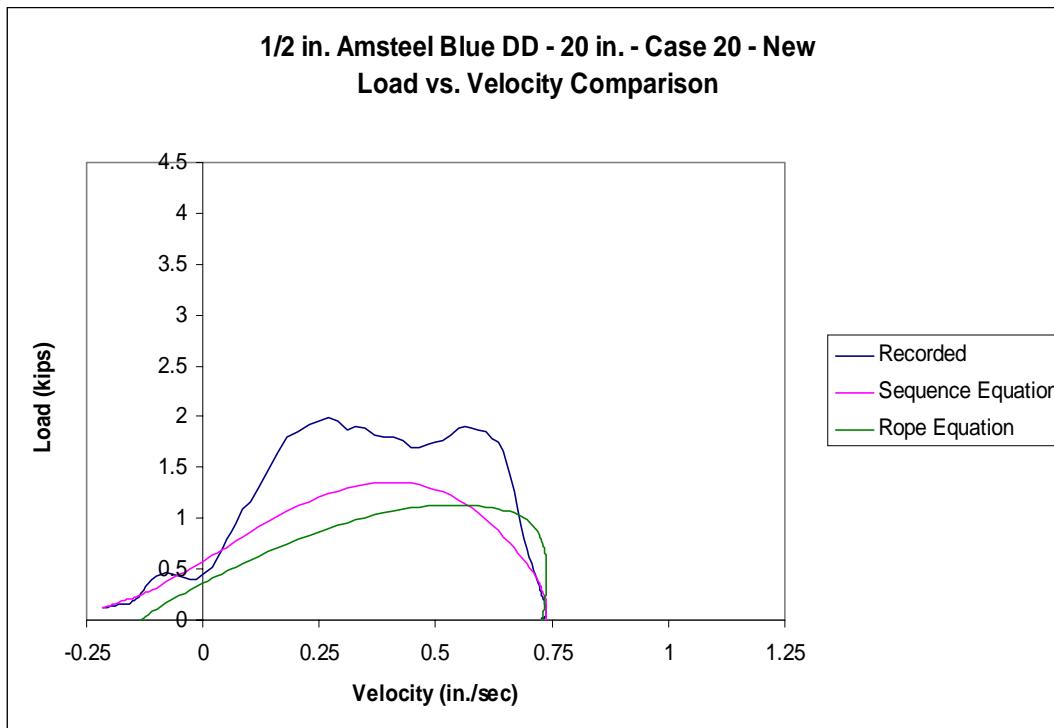


Figure C.3.70: Load vs. Velocity – Amsteel Blue DD – New – Cycle 20

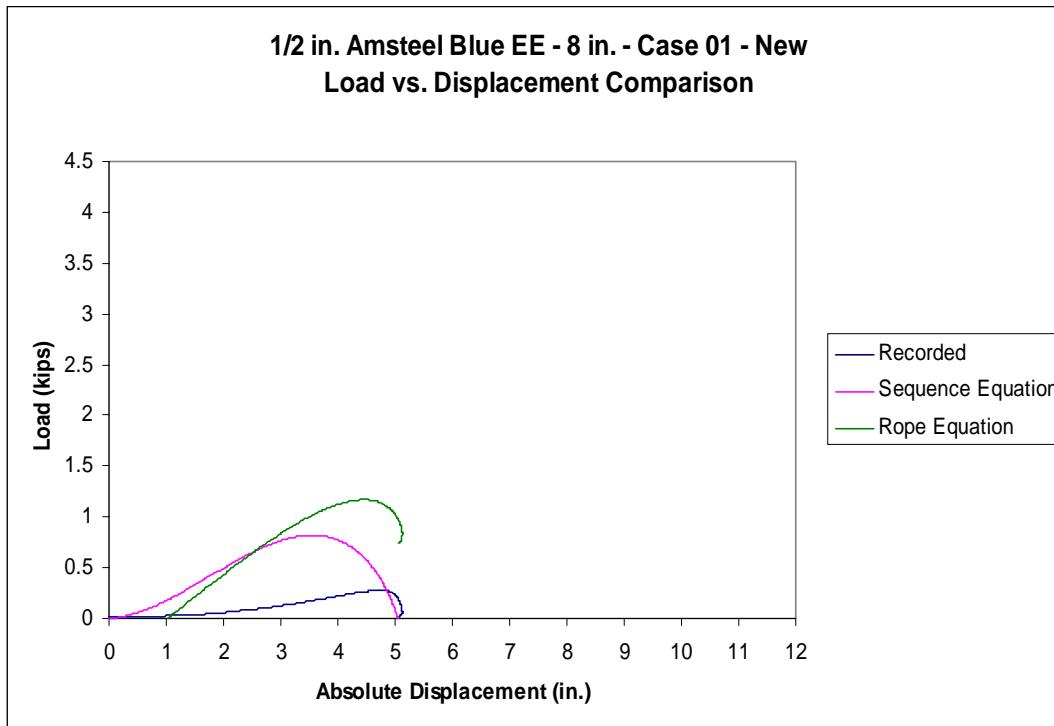


Figure C.3.71: Load vs. Displacement – Amsteel Blue EE – New – Cycle 1

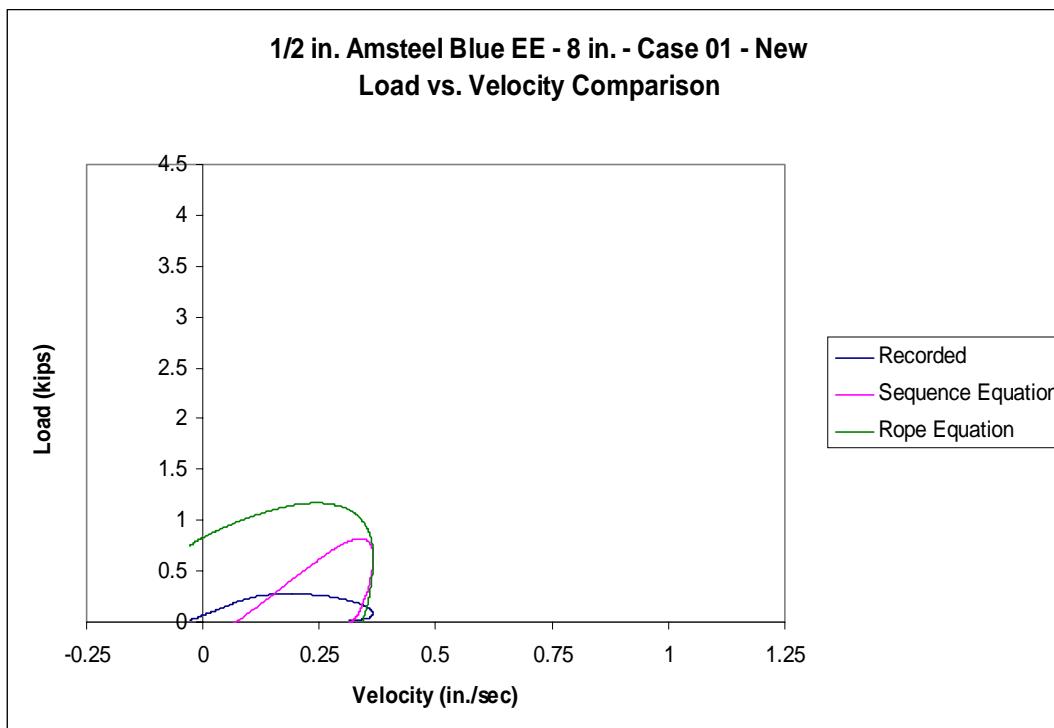


Figure C.3.72: Load vs. Velocity – Amsteel Blue EE – New – Cycle 1

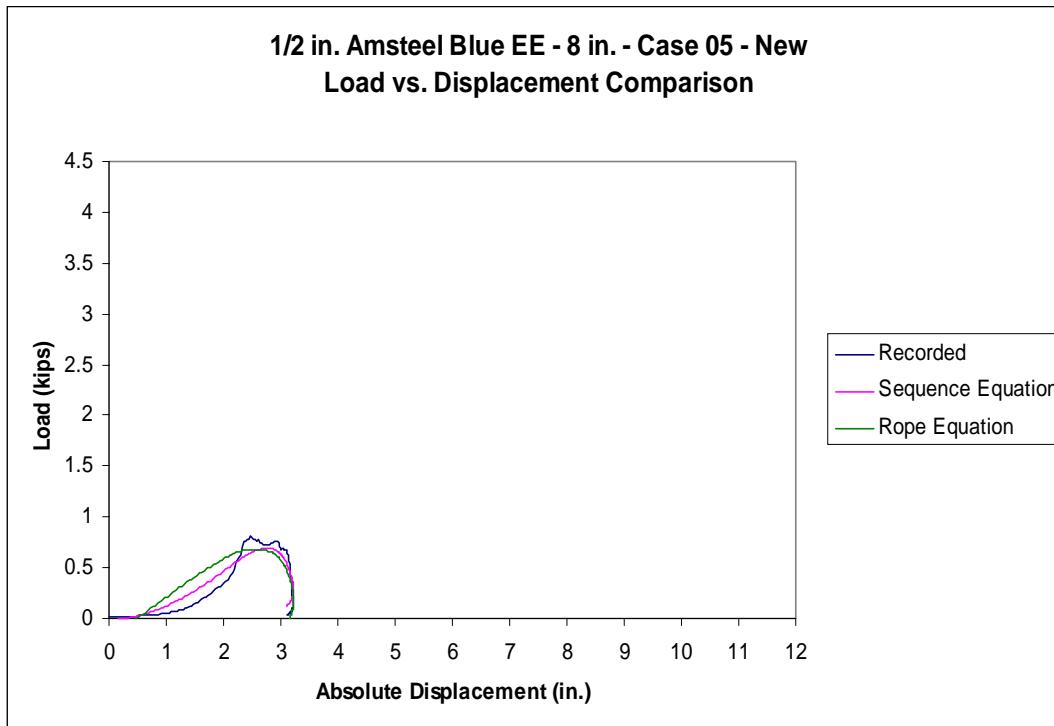


Figure C.3.73: Load vs. Displacement – Amsteel Blue EE – New – Cycle 5

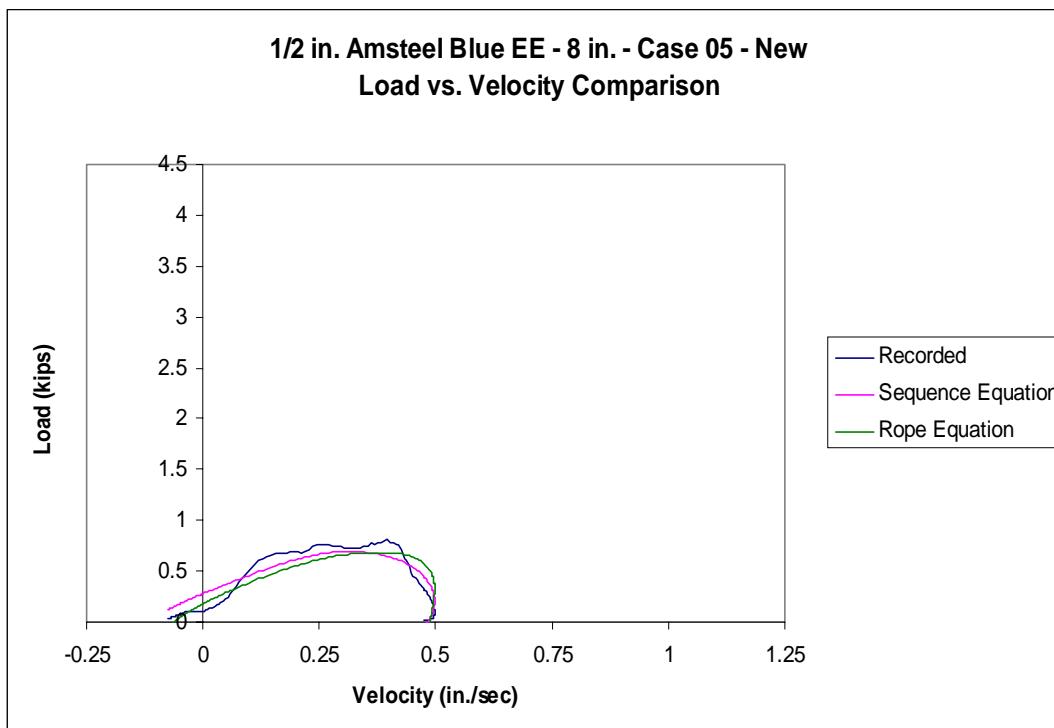


Figure C.3.74: Load vs. Velocity – Amsteel Blue EE – New – Cycle 5

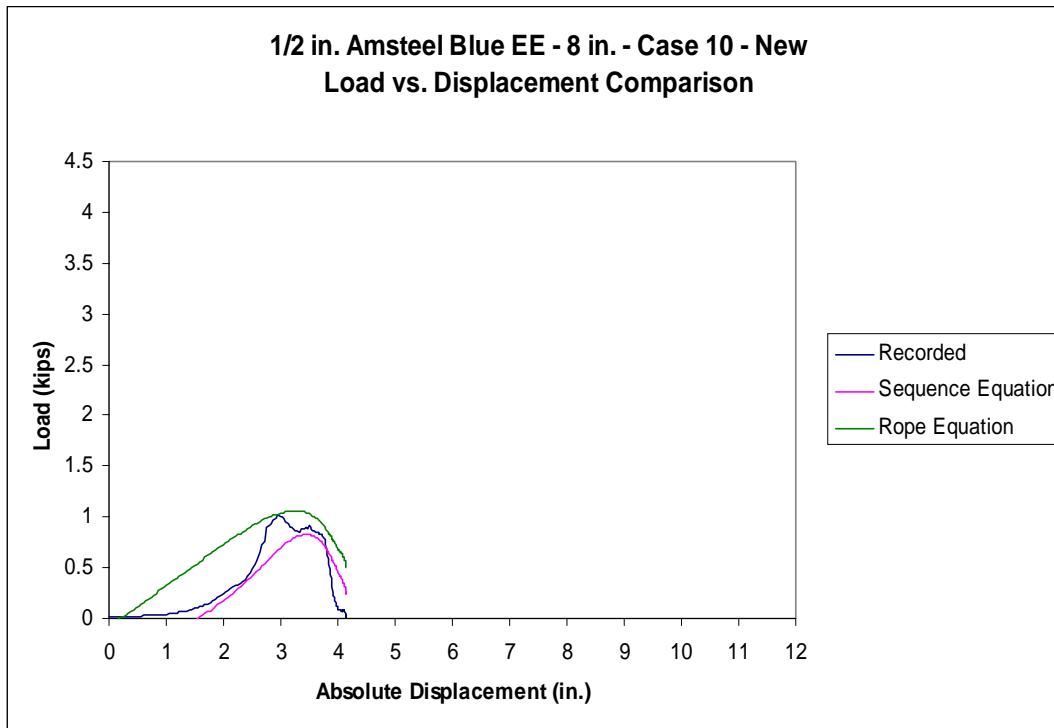


Figure C.3.75: Load vs. Displacement – Amsteel Blue EE – New – Cycle 10

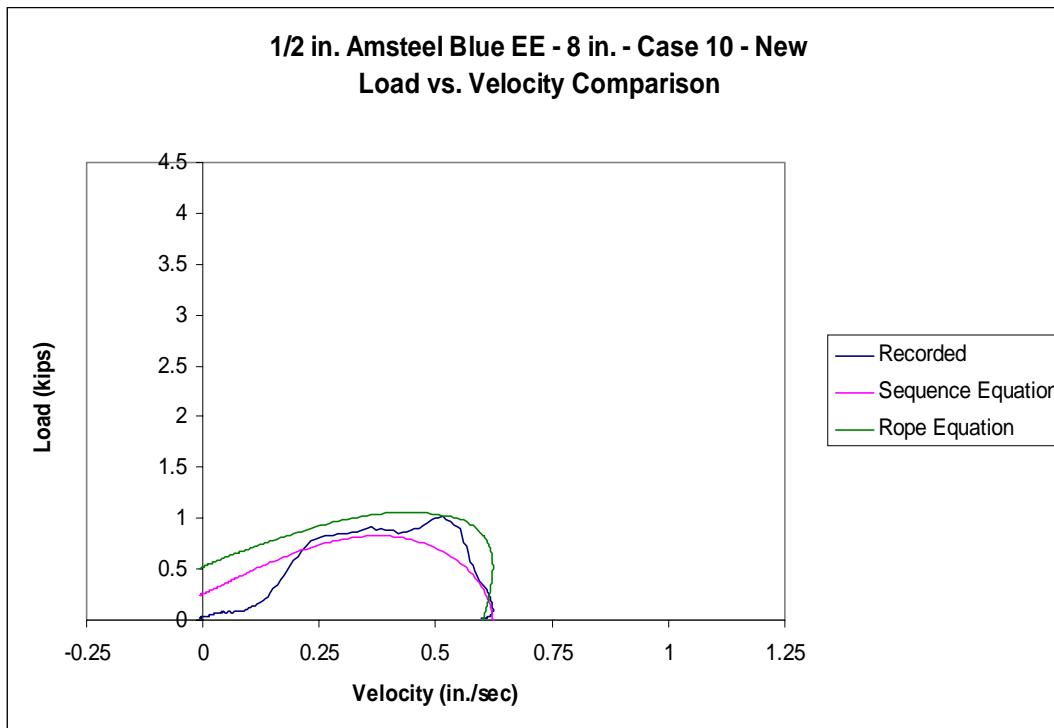


Figure C.3.76: Load vs. Velocity – Amsteel Blue EE – New – Cycle 10

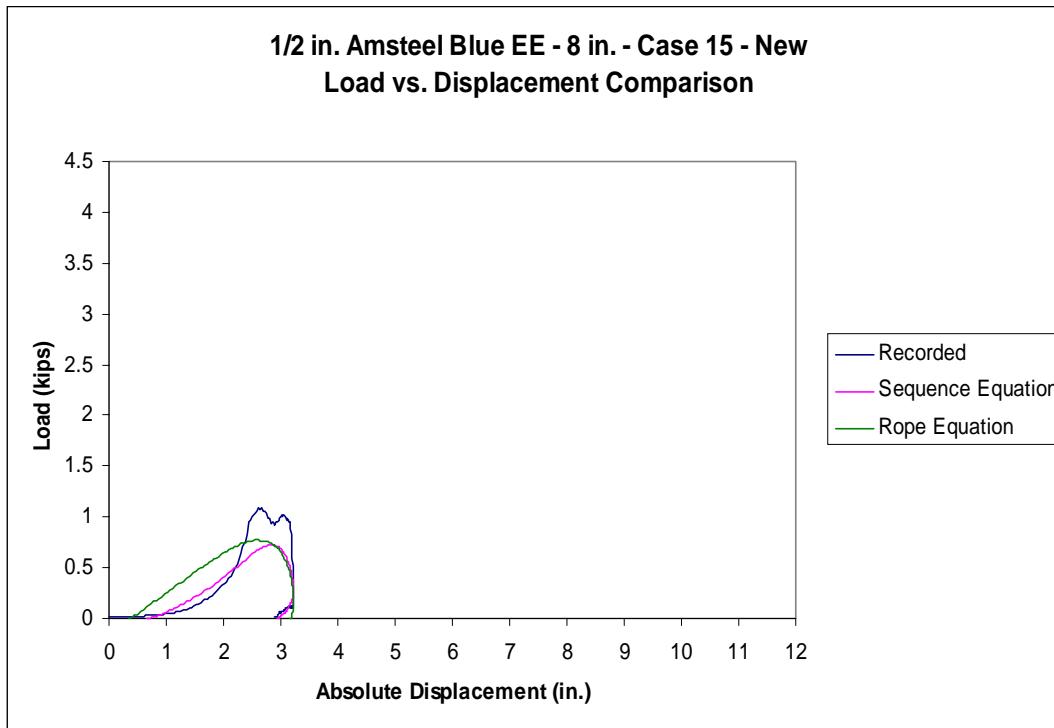


Figure C.3.77: Load vs. Displacement – Amsteel Blue EE – New – Cycle 15

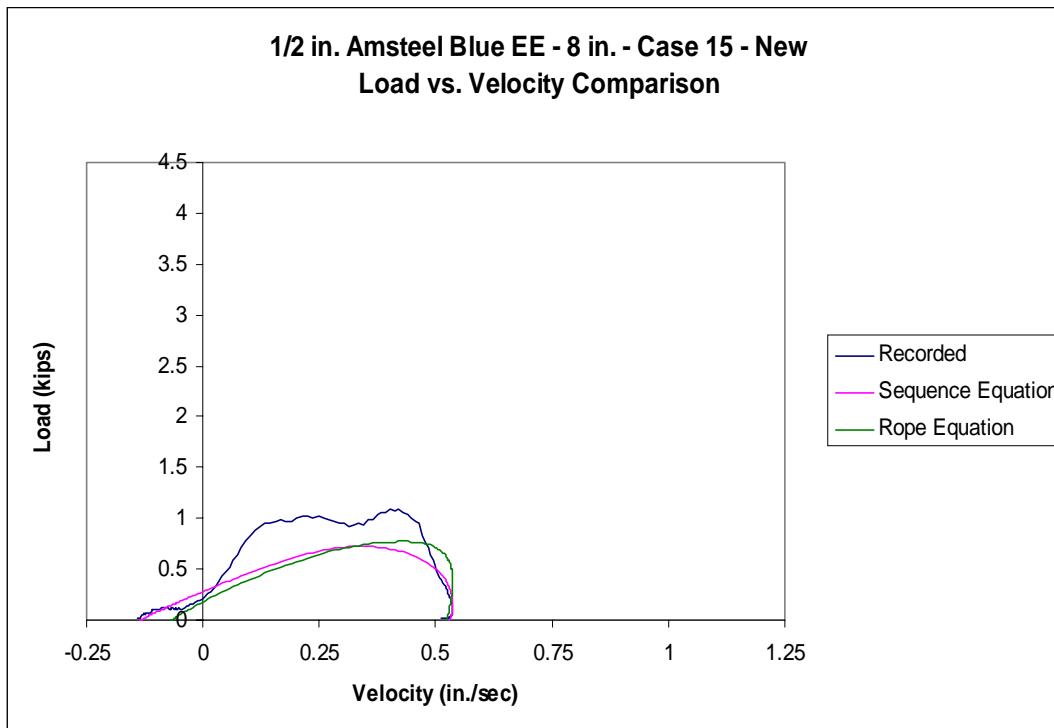


Figure C.3.78: Load vs. Velocity – Amsteel Blue EE – New – Cycle 15

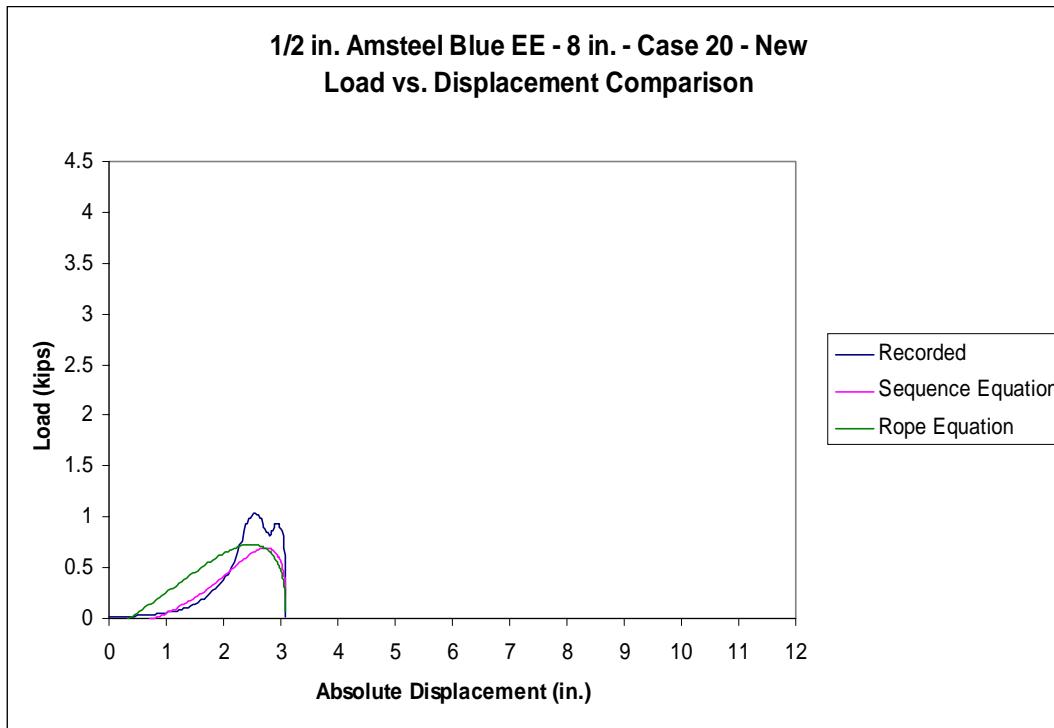


Figure C.3.79: Load vs. Displacement – Amsteel Blue EE – New – Cycle 20

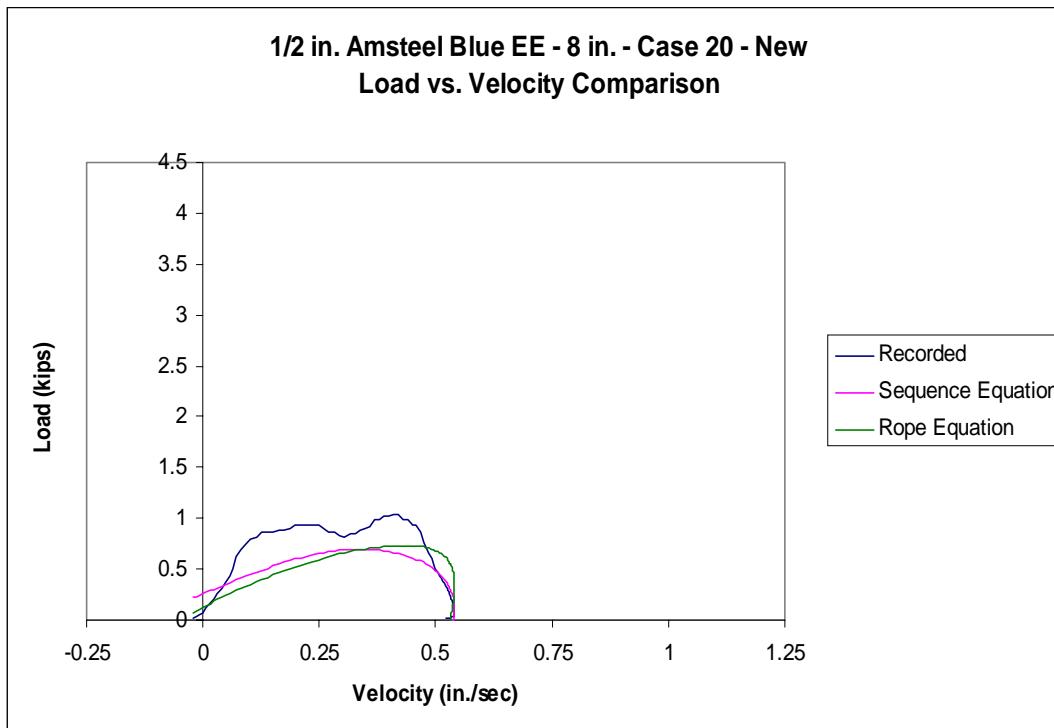


Figure C.3.80: Load vs. Velocity – Amsteel Blue EE – New – Cycle 20

C.4 Load vs. Displacement and Load vs. Velocity Plots for the Amsteel II Ropes – Model 4

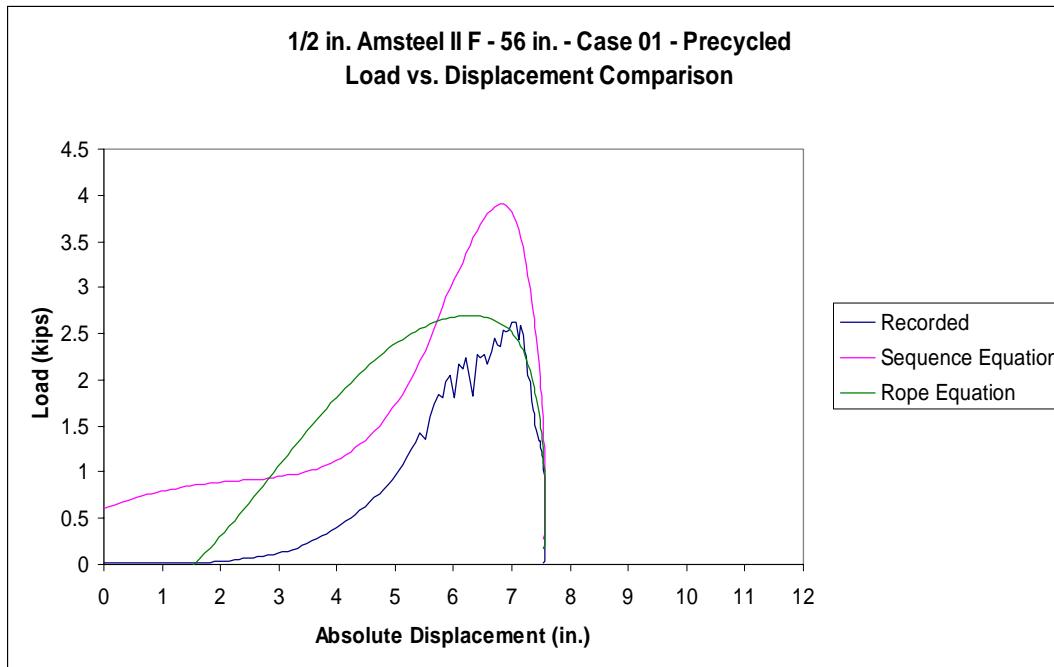


Figure C.4.1: Load vs. Displacement – Amsteel II F – Precycled – Cycle 1

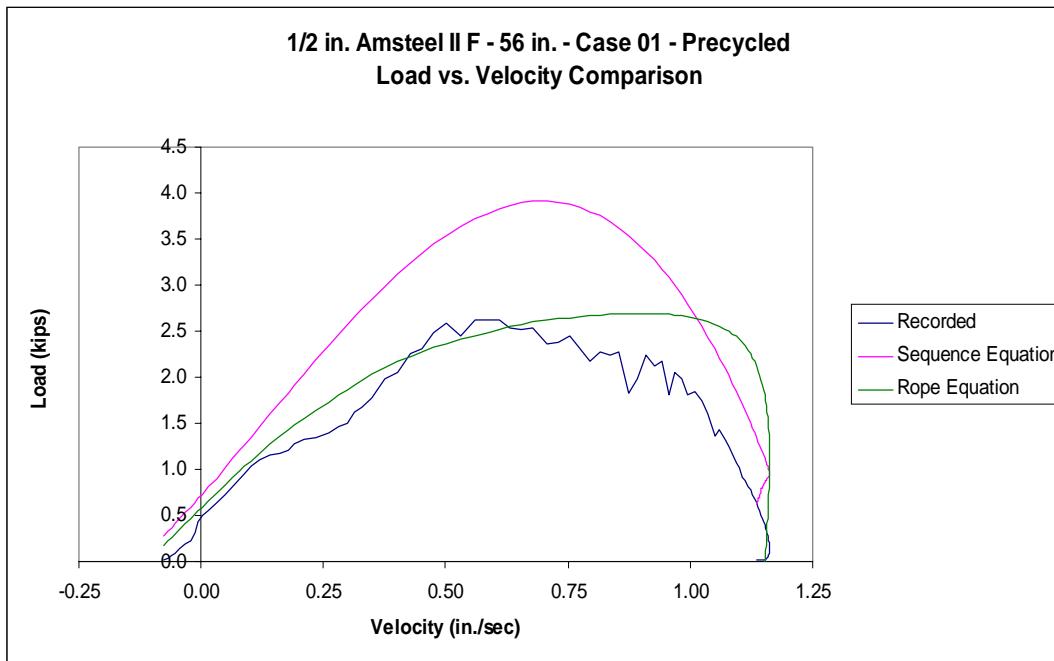


Figure C.4.2: Load vs. Velocity – Amsteel II F – Precycled – Cycle 1

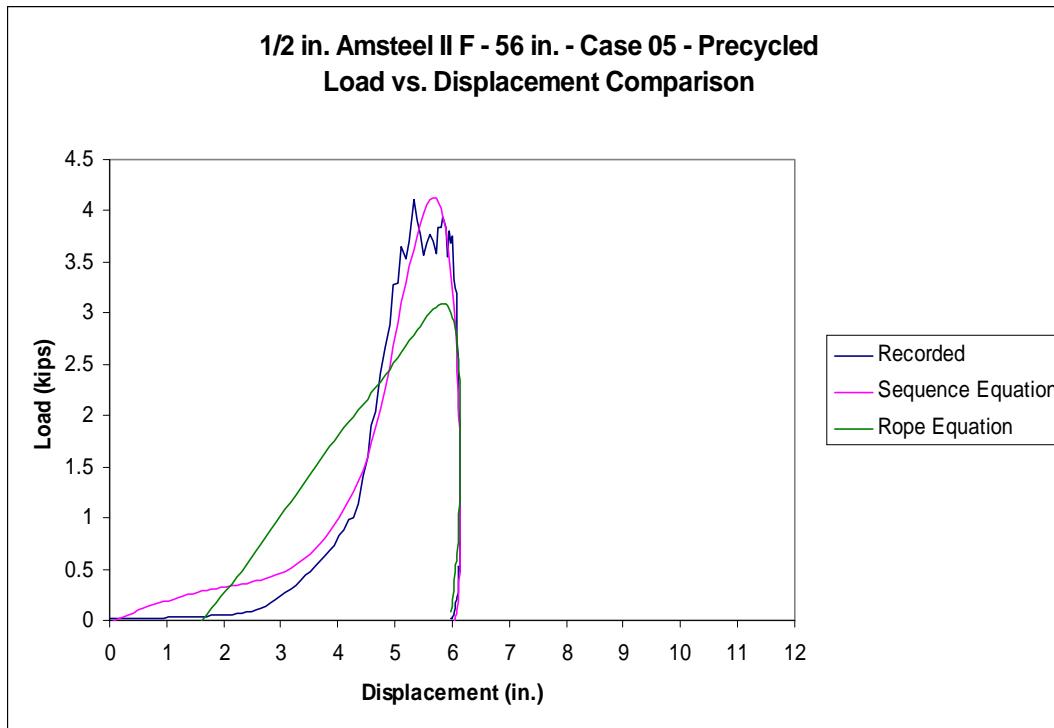


Figure C.4.3: Load vs. Displacement – Amsteel II F – Precycled – Cycle 5

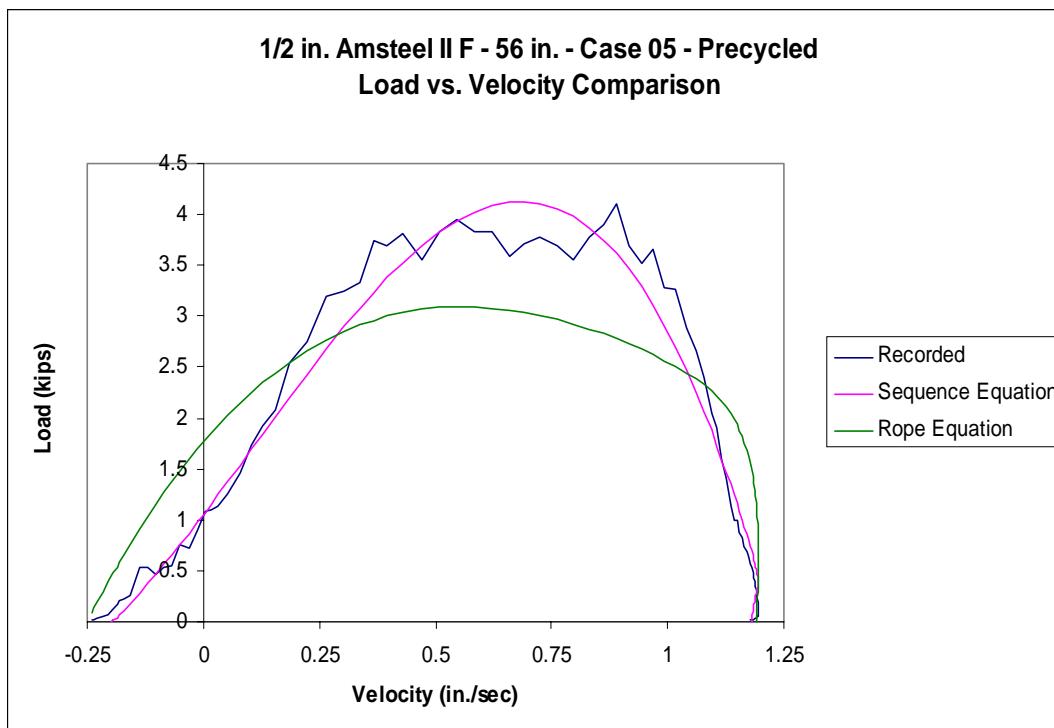


Figure C.4.4: Load vs. Velocity – Amsteel II F – Precycled – Cycle 5

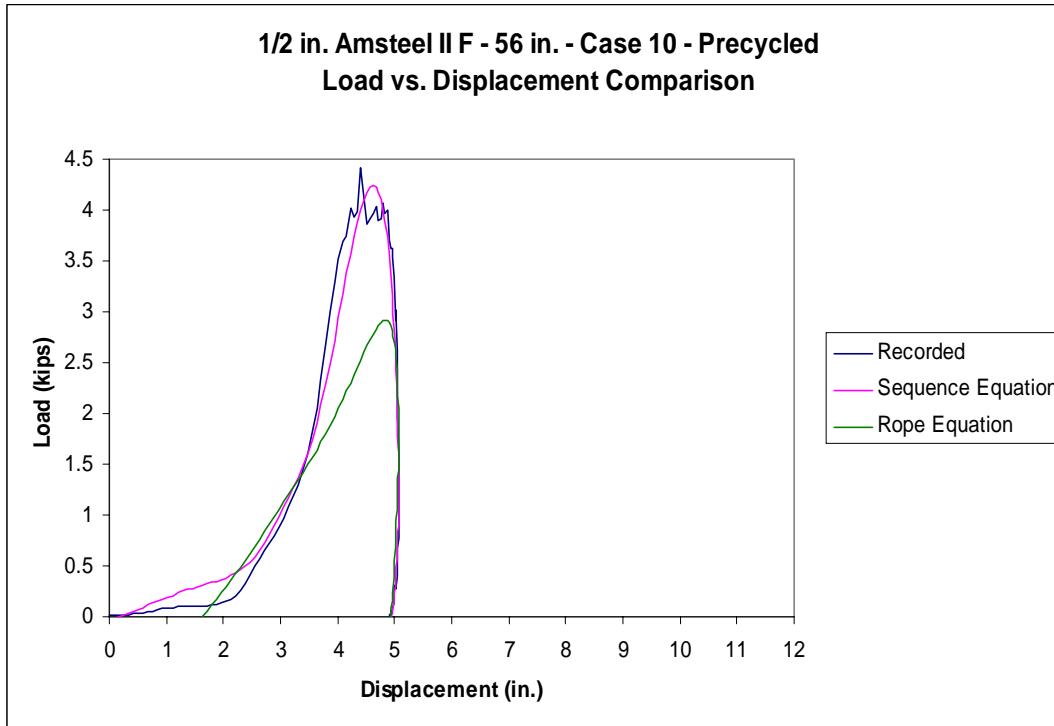


Figure C.4.5: Load vs. Displacement – Amsteel II F – Precycled – Cycle 10

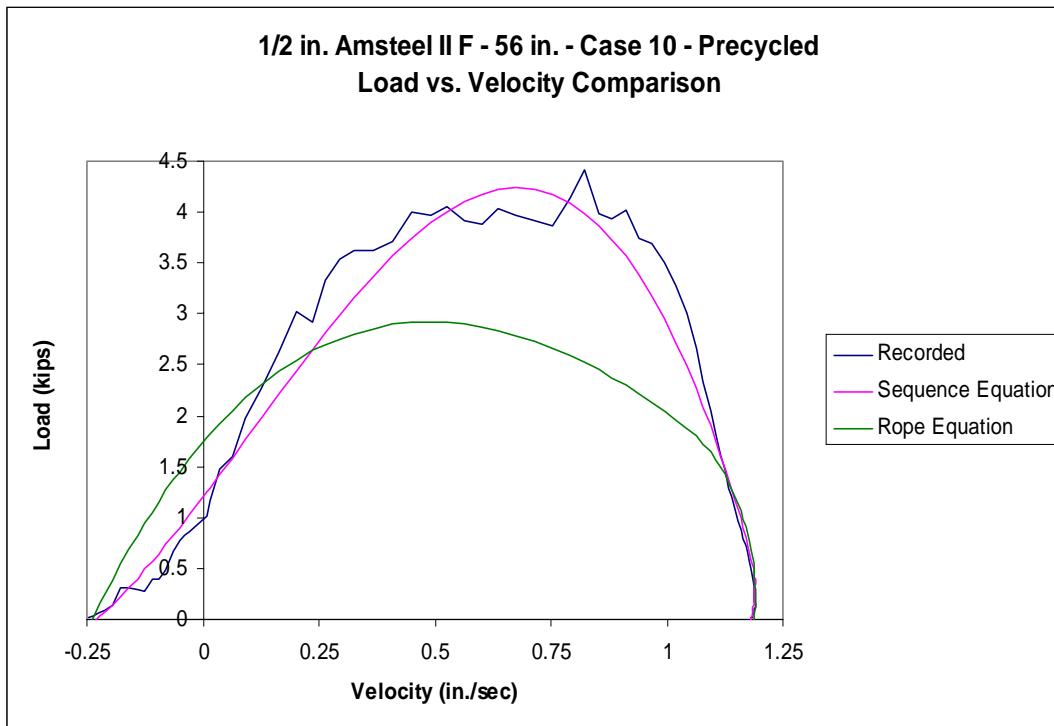


Figure C.4.6: Load vs. Velocity – Amsteel II F – Precycled – Cycle 10

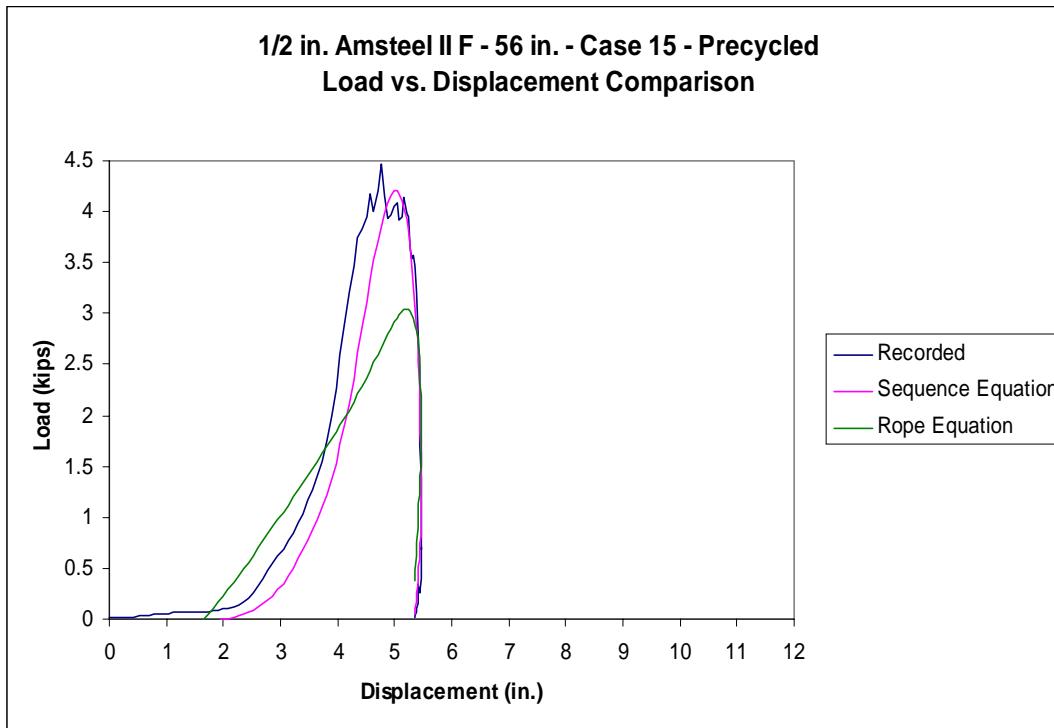


Figure C.4.7: Load vs. Displacement – Amsteel II F – Precycled – Cycle 15

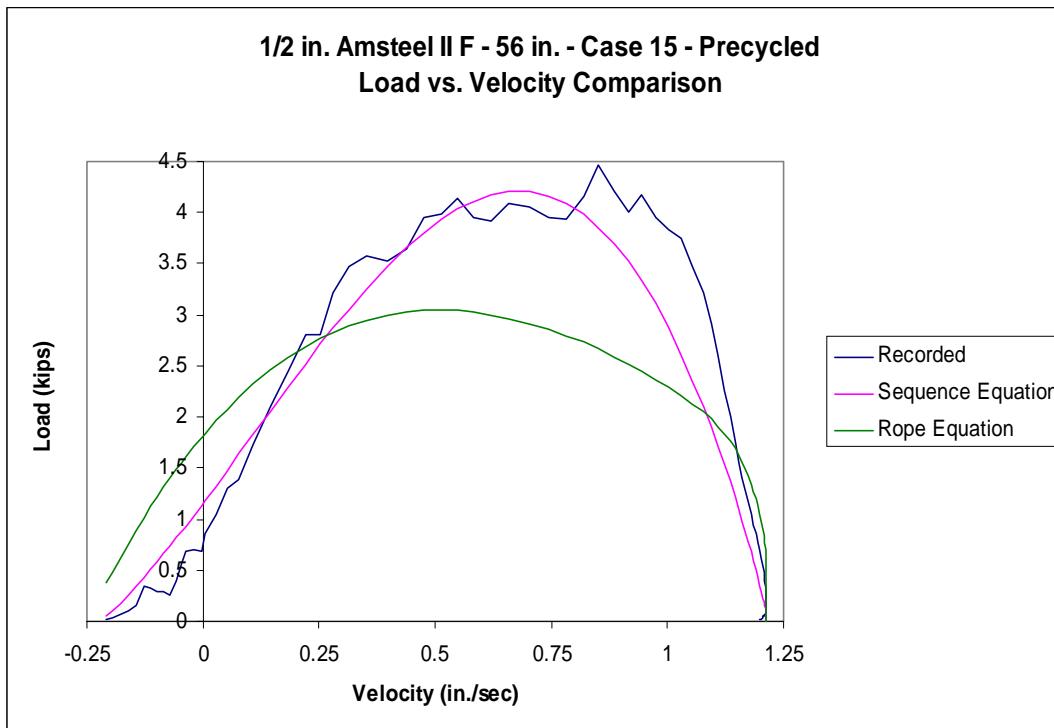


Figure C.4.8: Load vs. Velocity – Amsteel II F – Precycled – Cycle 15

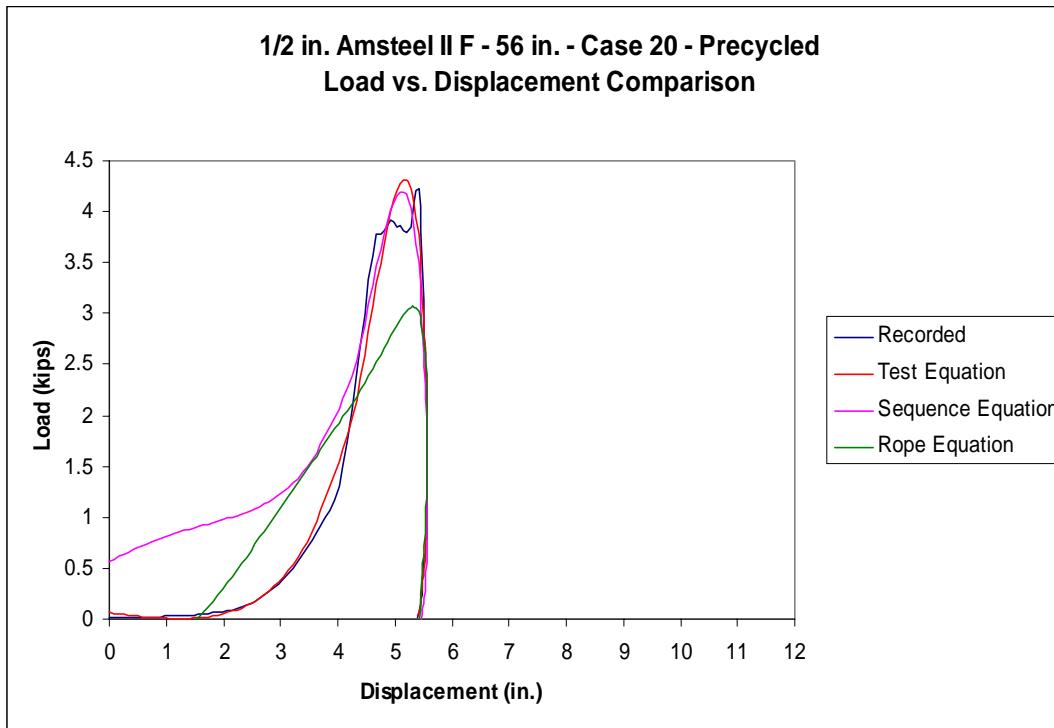


Figure C.4.9: Load vs. Displacement – Amsteel II F – Precycled – Cycle 20

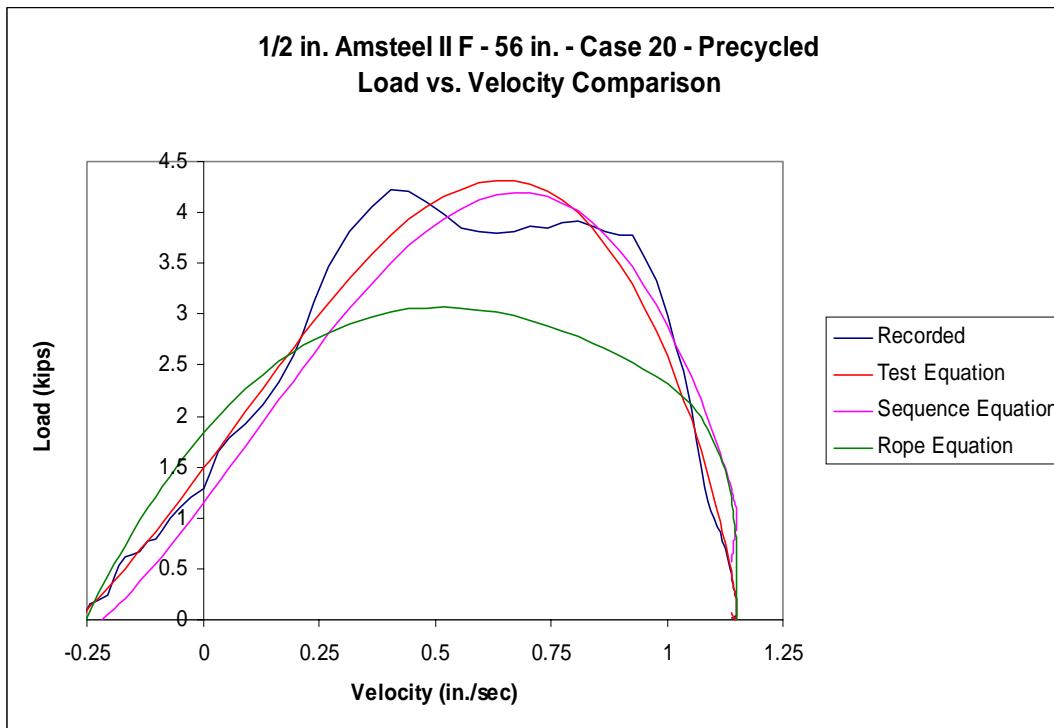


Figure C.4.10: Load vs. Velocity – Amsteel II F – Precycled – Cycle 20

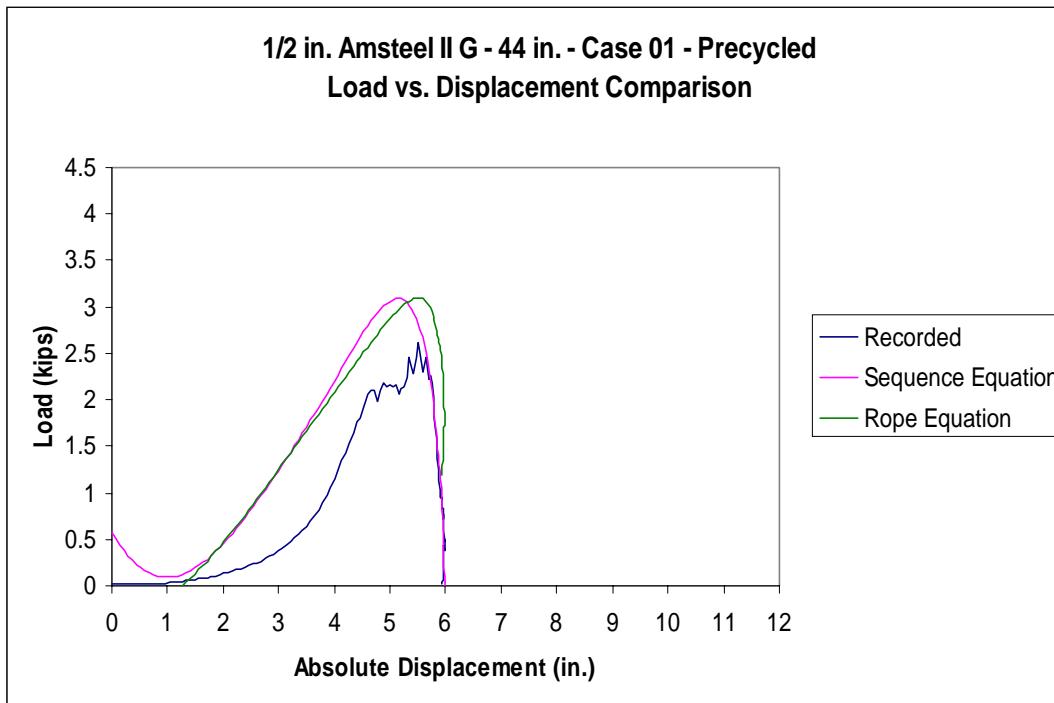


Figure C.4.11: Load vs. Displacement – Amsteel II G – Precycled – Cycle 1

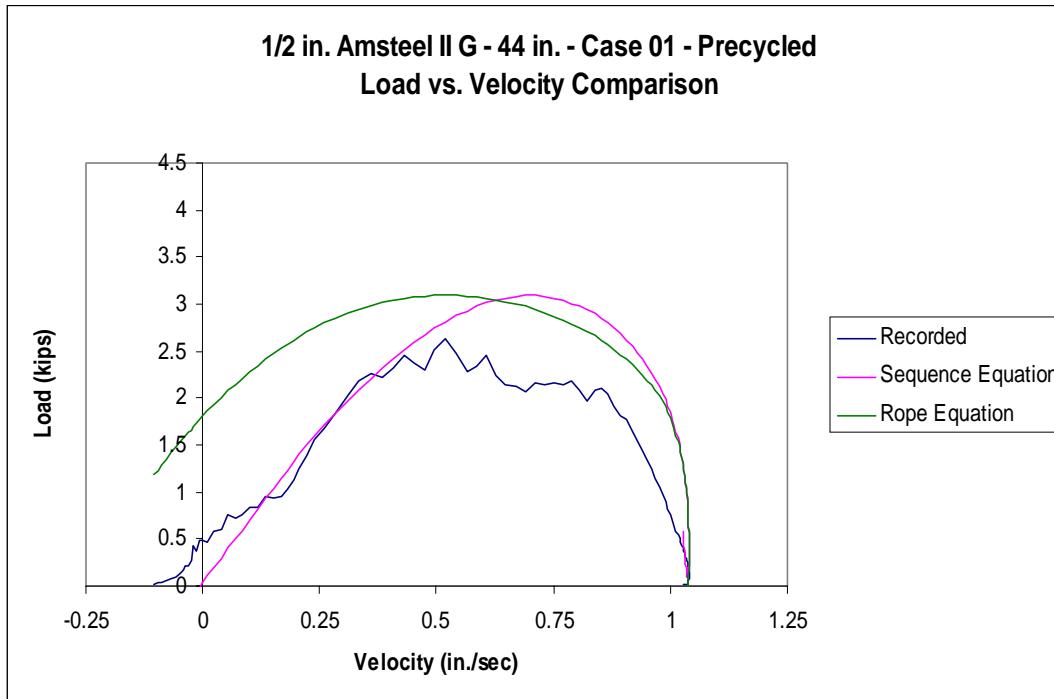


Figure C.4.12: Load vs. Velocity – Amsteel II G – Precycled – Cycle 1

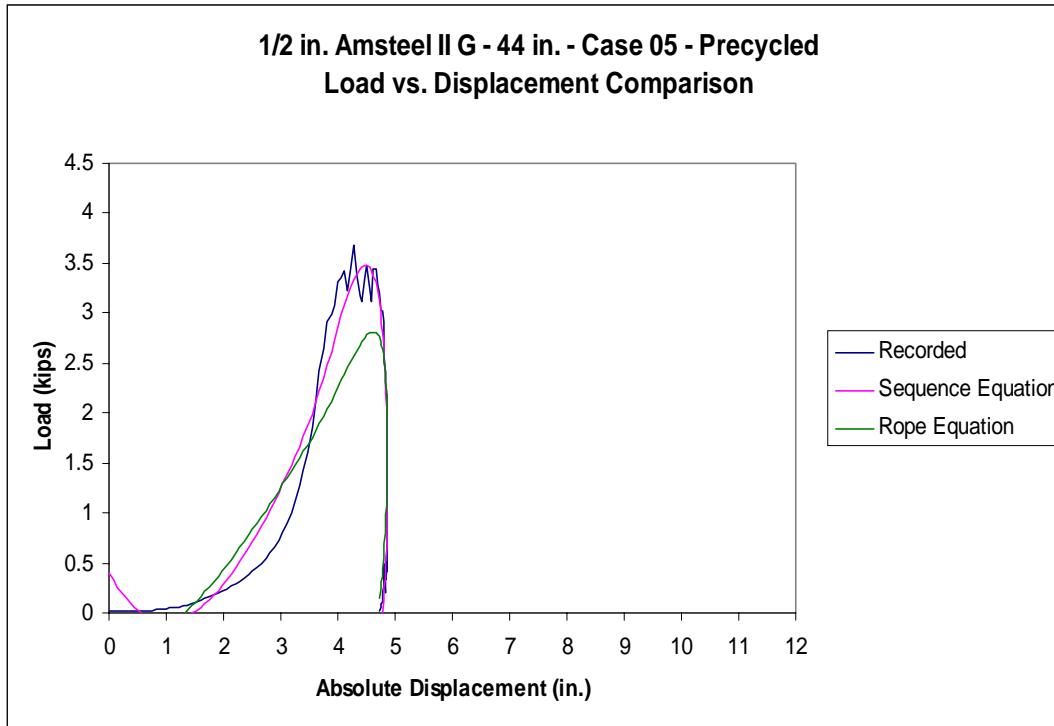


Figure C.4.13: Load vs. Displacement – Amsteel II G – Precycled – Cycle 5

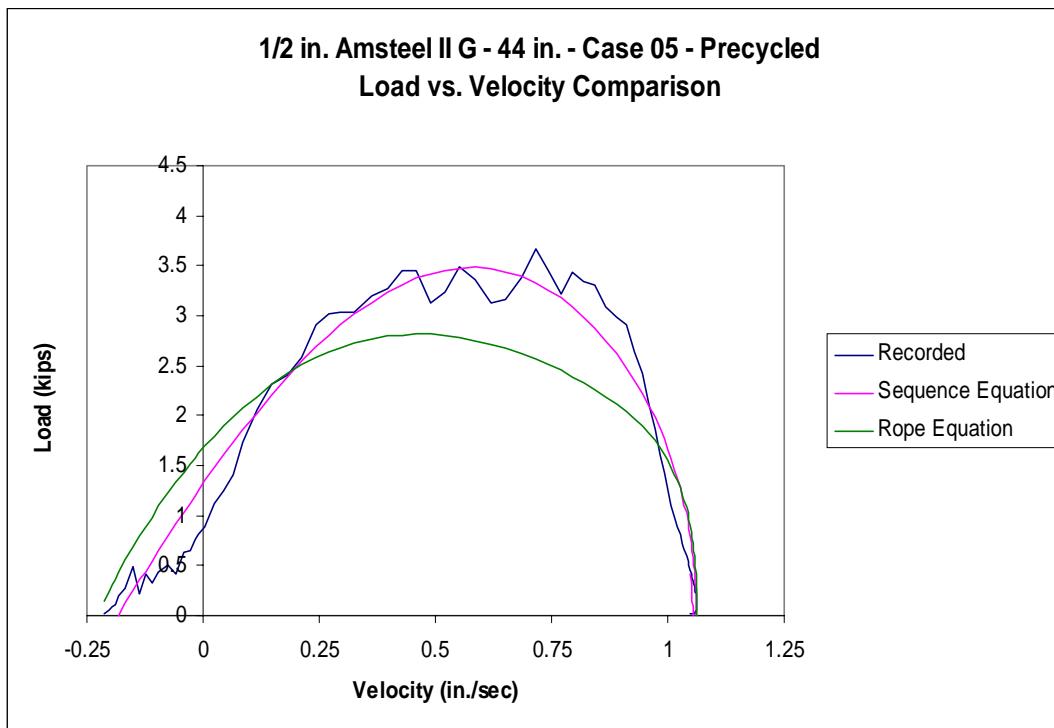


Figure C.4.14: Load vs. Velocity – Amsteel II G – Precycled – Cycle 5

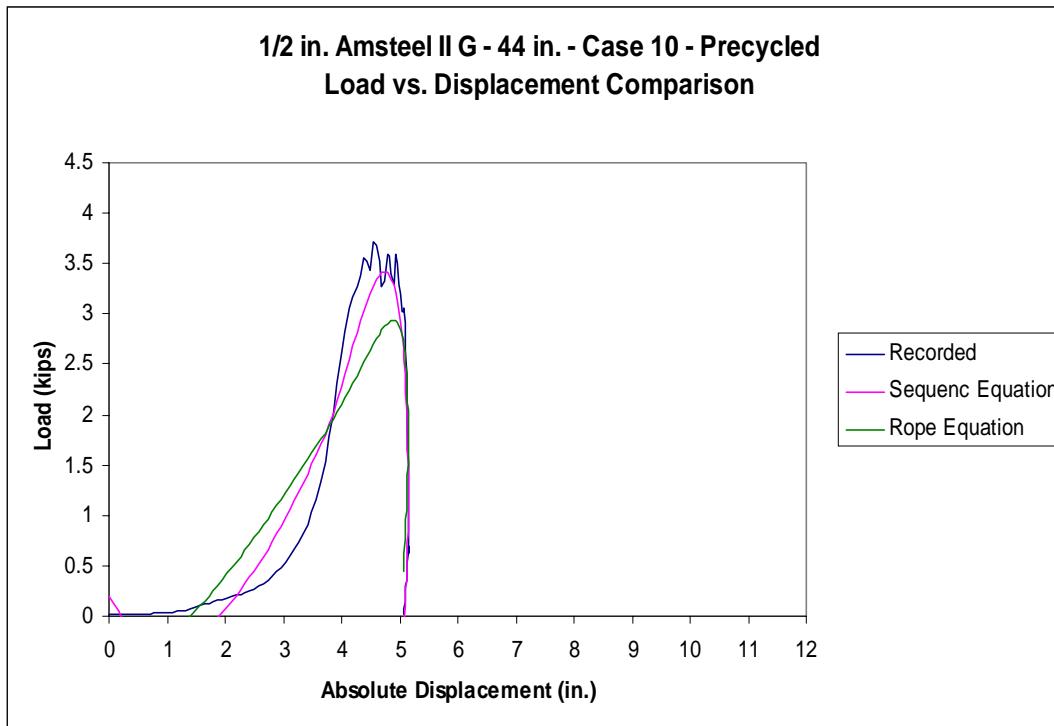


Figure C.4.15: Load vs. Displacement – Amsteel II G – Precycled – Cycle 10

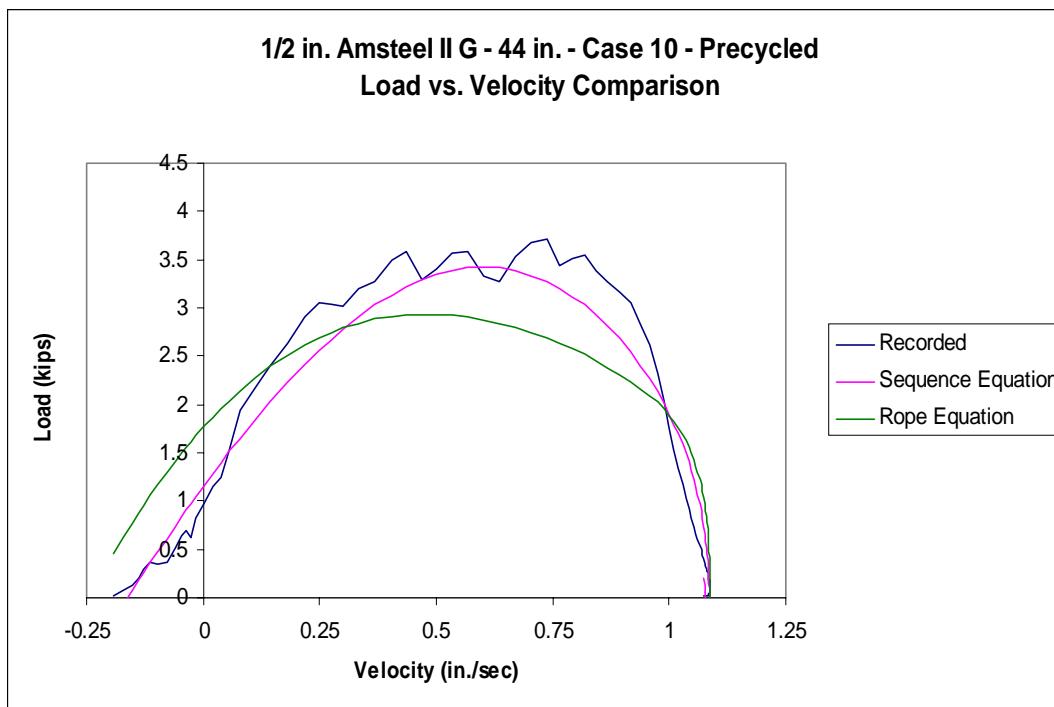


Figure C.4.16: Load vs. Velocity – Amsteel II G – Precycled – Cycle 10

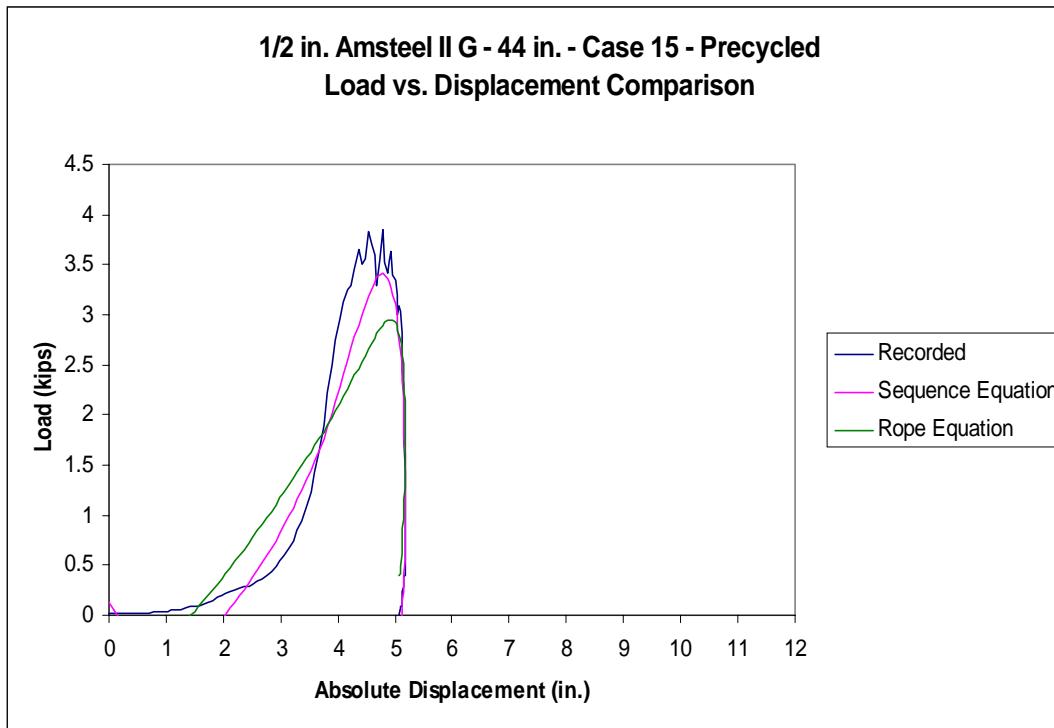


Figure C.4.17: Load vs. Displacement – Amsteel II G – Precycled – Cycle 15

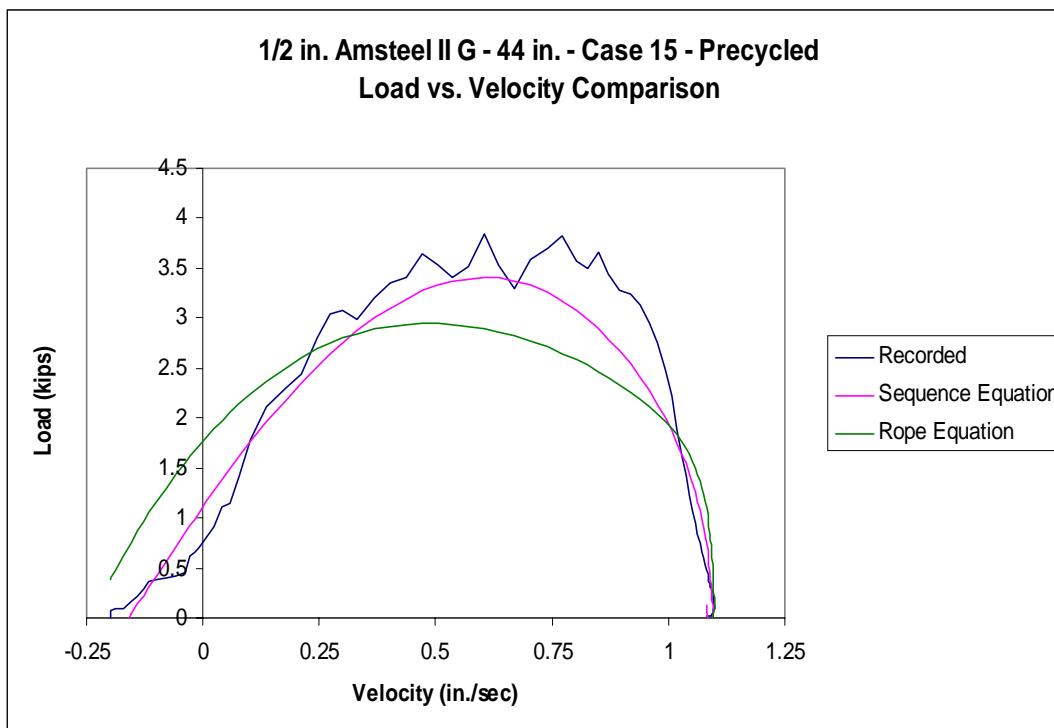


Figure C.4.18: Load vs. Velocity – Amsteel II G – Precycled – Cycle 15

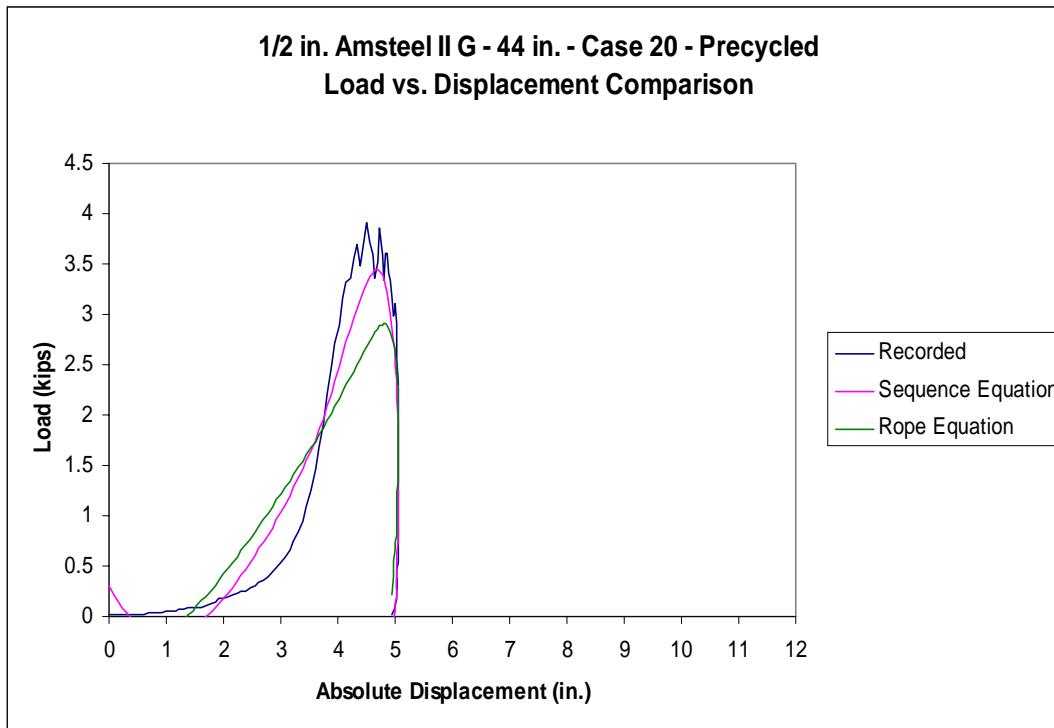


Figure C.4.19: Load vs. Displacement – Amsteel II G – Precycled – Cycle 20

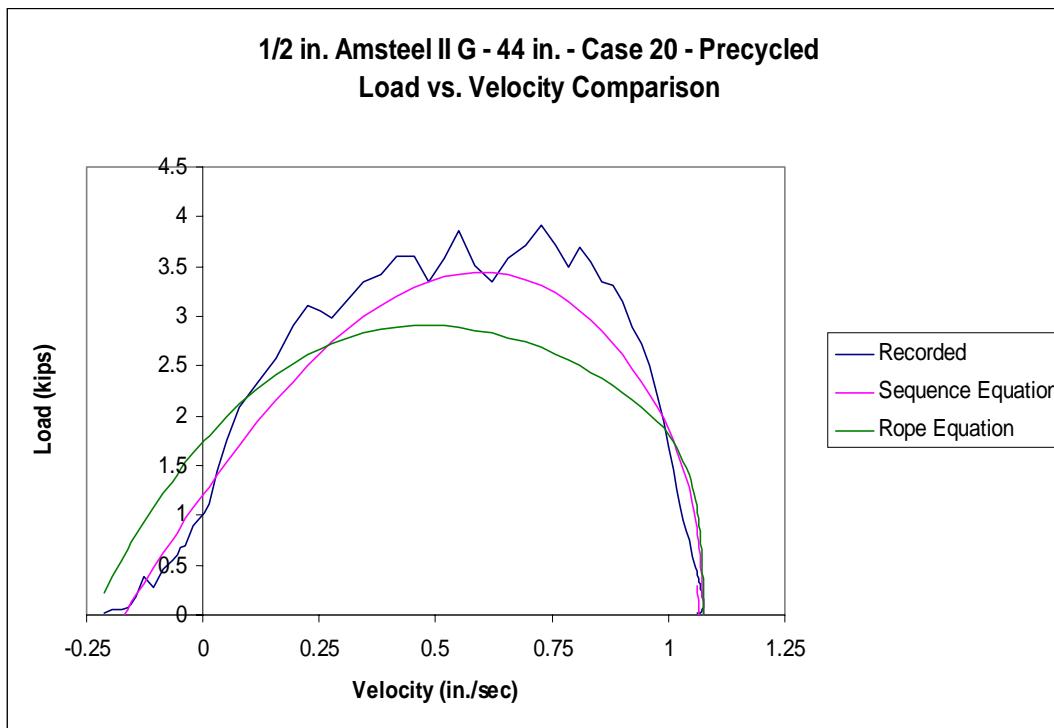


Figure C.4.20: Load vs. Velocity – Amsteel II G – Precycled – Cycle 20

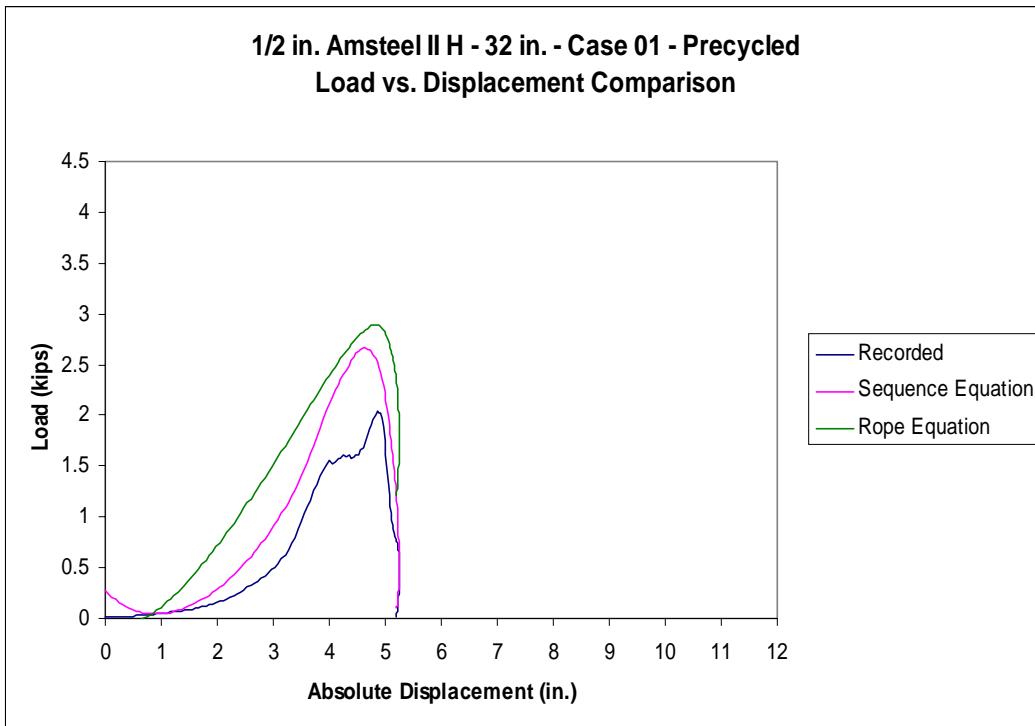


Figure C.4.21: Load vs. Displacement – Amsteel II H – Precycled – Cycle 1

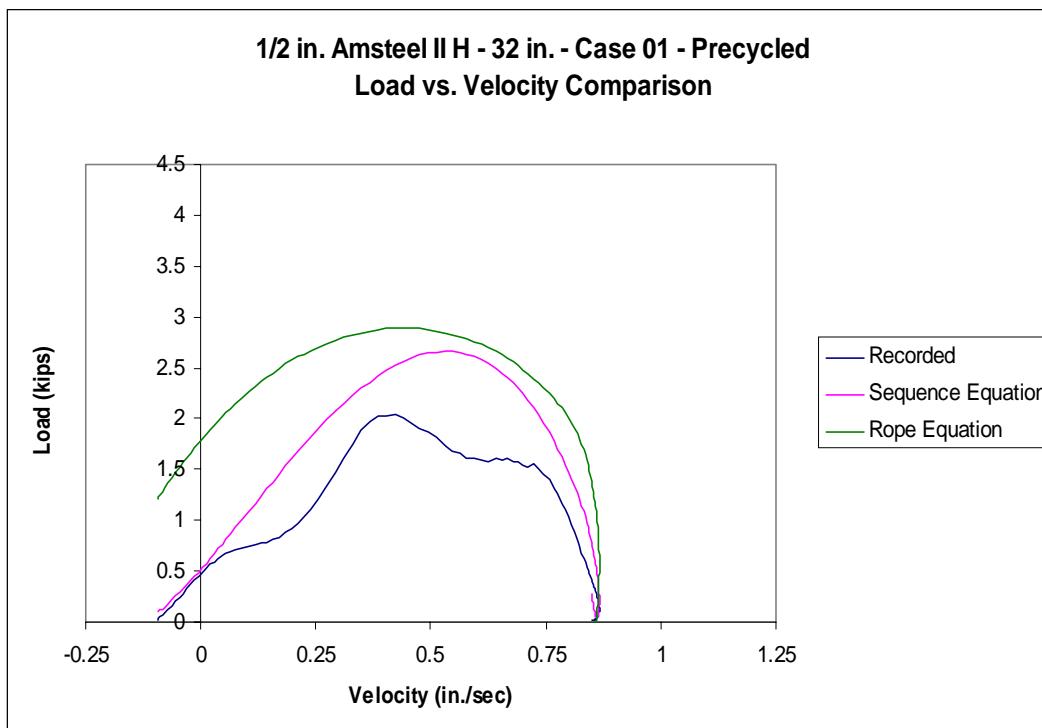


Figure C.4.22: Load vs. Velocity – Amsteel II H – Precycled – Cycle 1

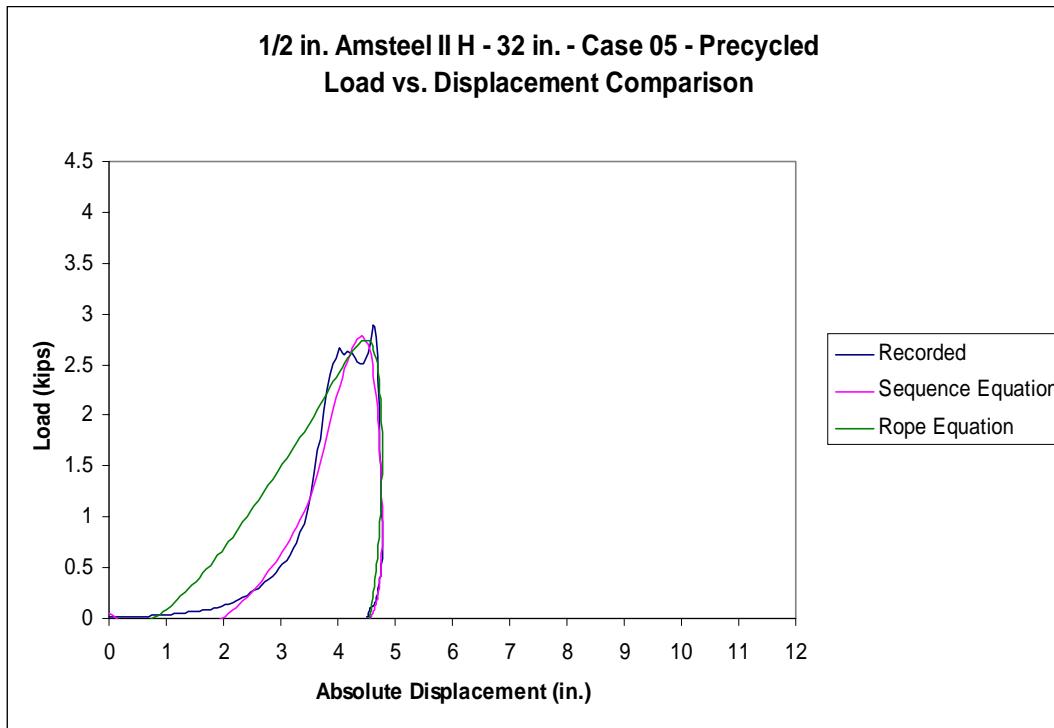


Figure C.4.23: Load vs. Displacement – Amsteel II H – Precycled – Cycle 5

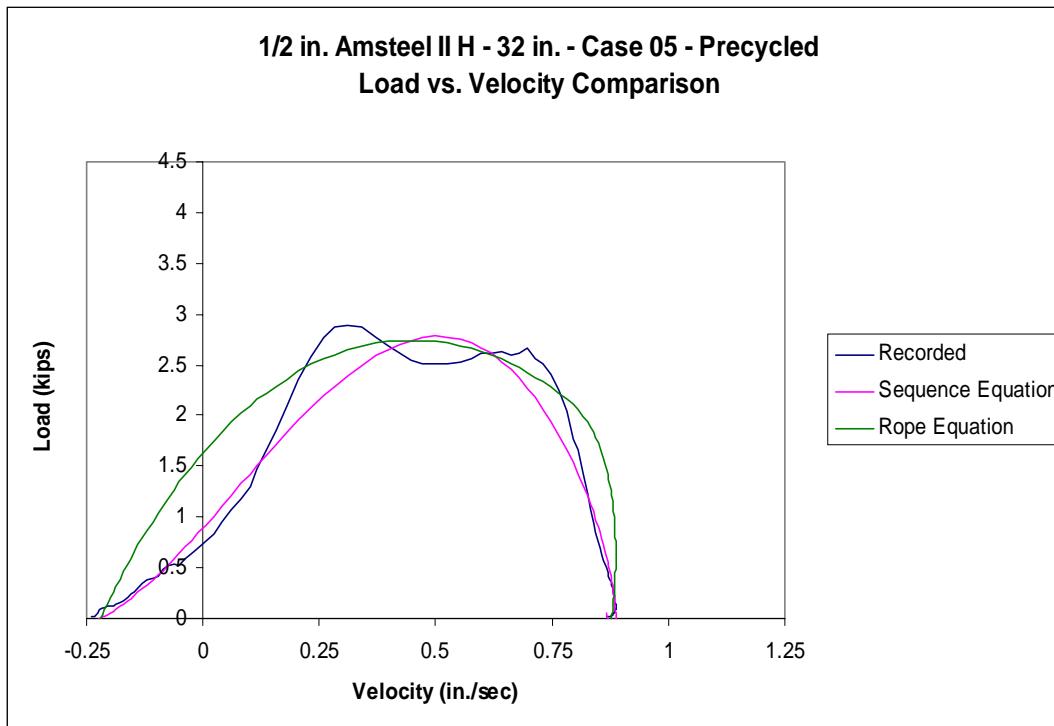


Figure C.4.24: Load vs. Velocity – Amsteel II H – Precycled – Cycle 5

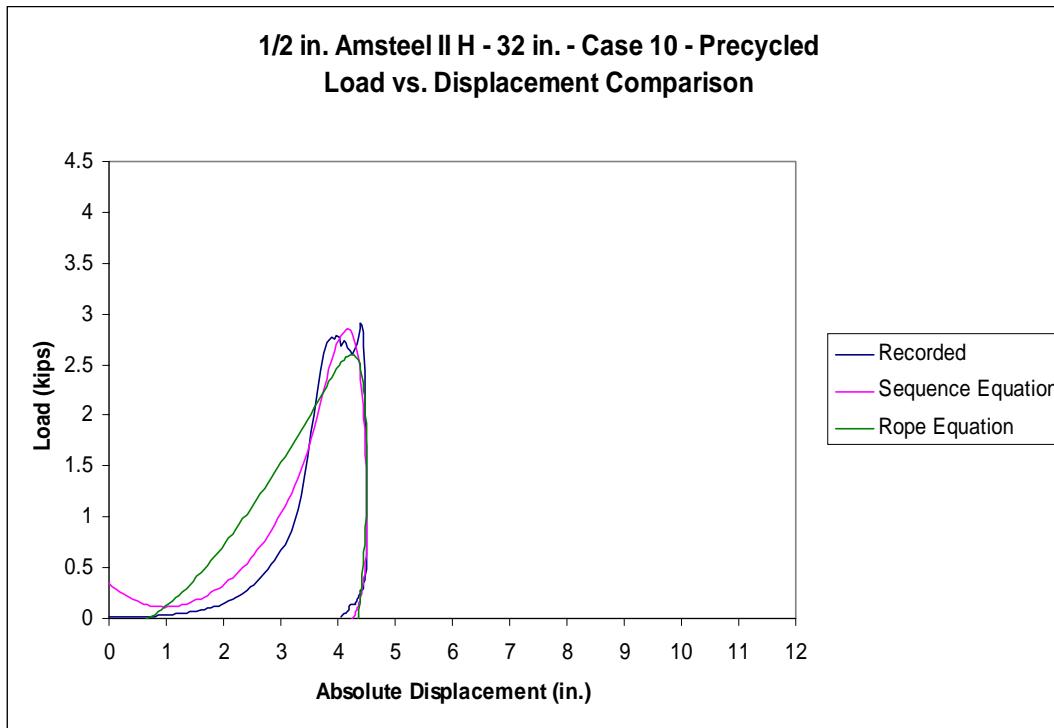


Figure C.4.25: Load vs. Displacement – Amsteel II H – Precycled – Cycle 10

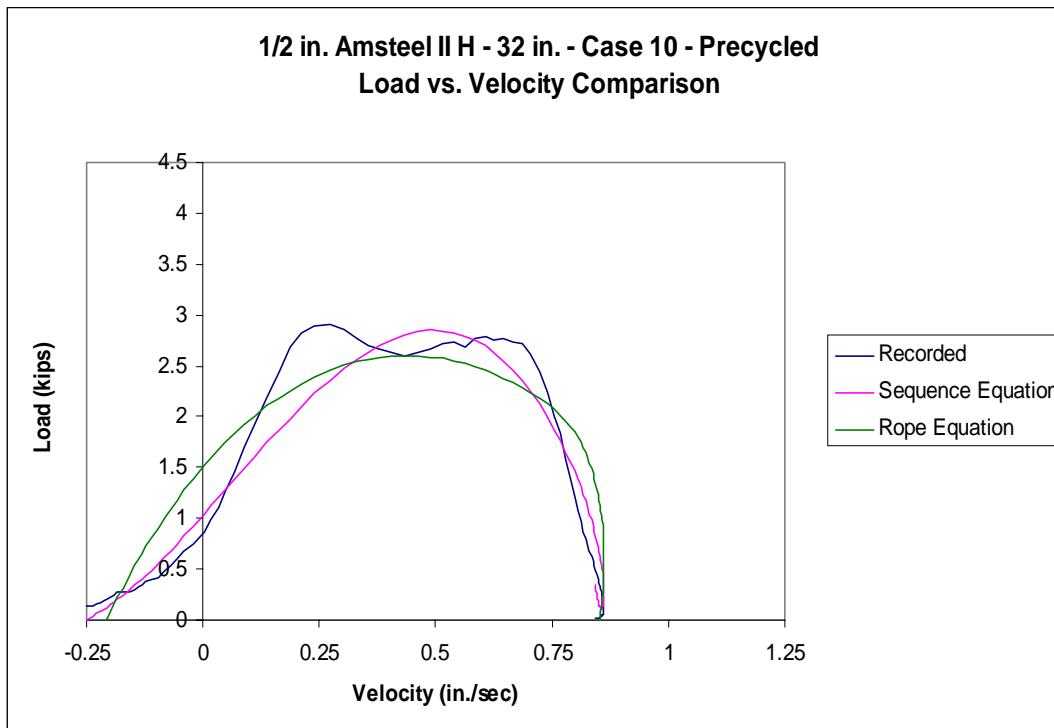


Figure C.4.26: Load vs. Velocity – Amsteel II H – Precycled – Cycle 10

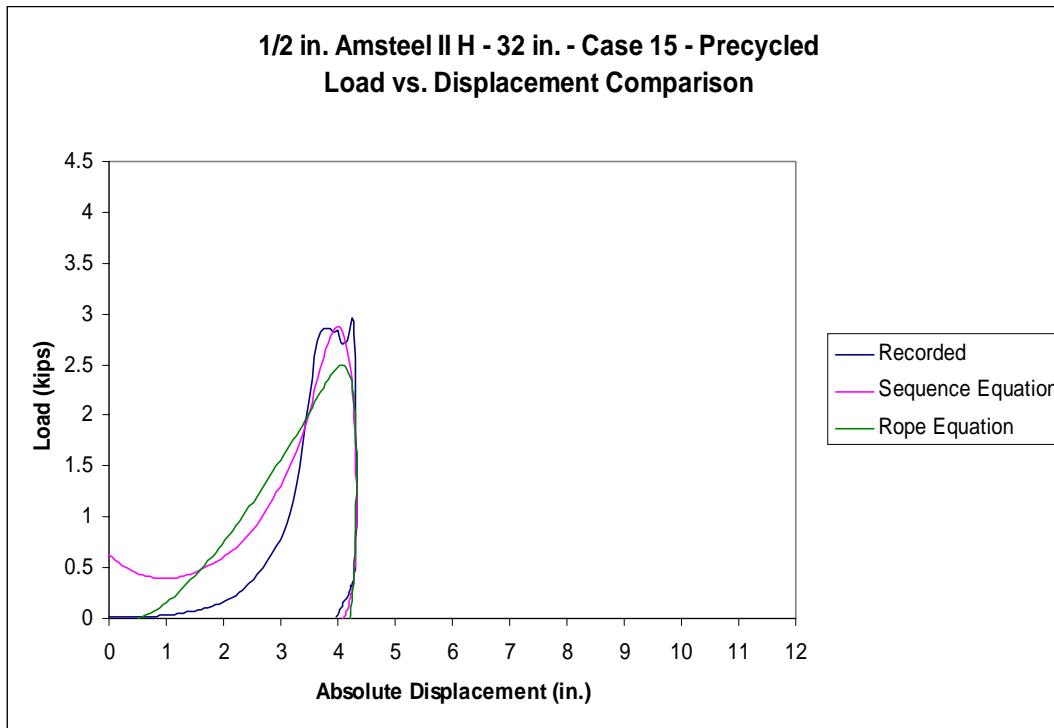


Figure C.4.27: Load vs. Displacement – Amsteel II H – Precycled – Cycle 15

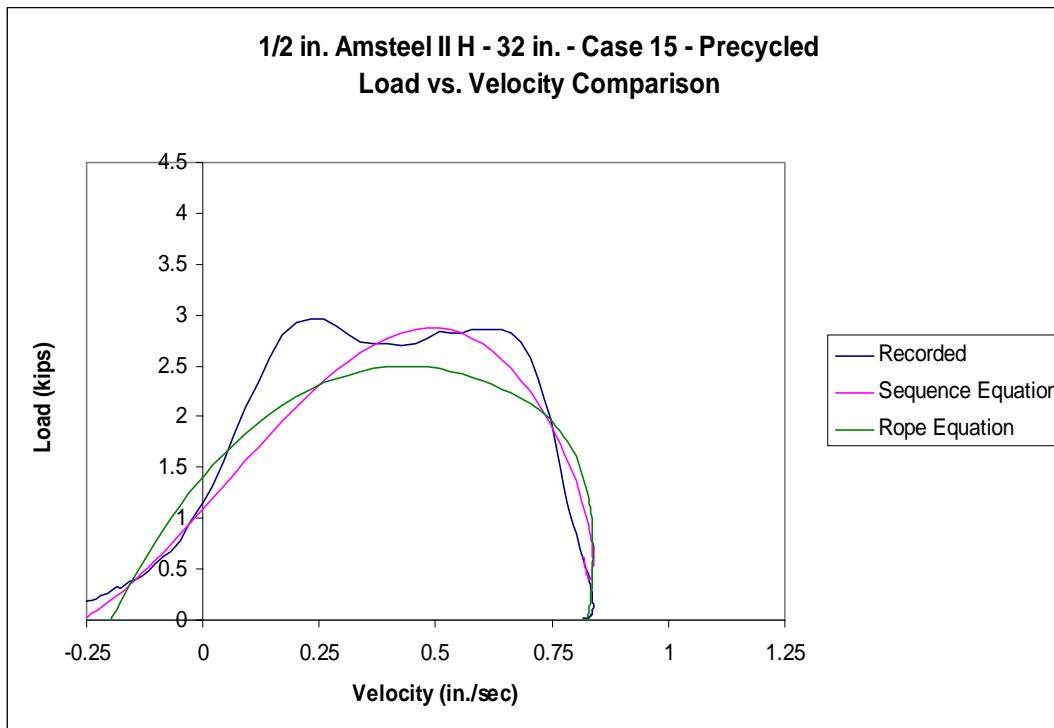


Figure C.4.28: Load vs. Velocity – Amsteel II H – Precycled – Cycle 15

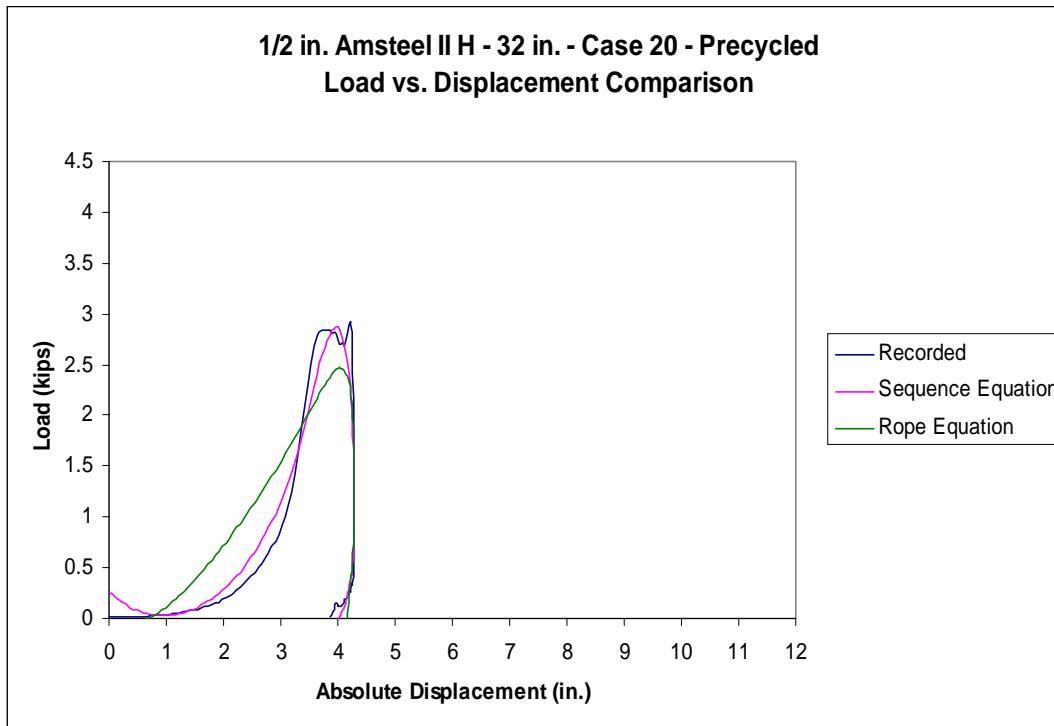


Figure C.4.29: Load vs. Displacement – Amsteel II H – Precycled – Cycle 20

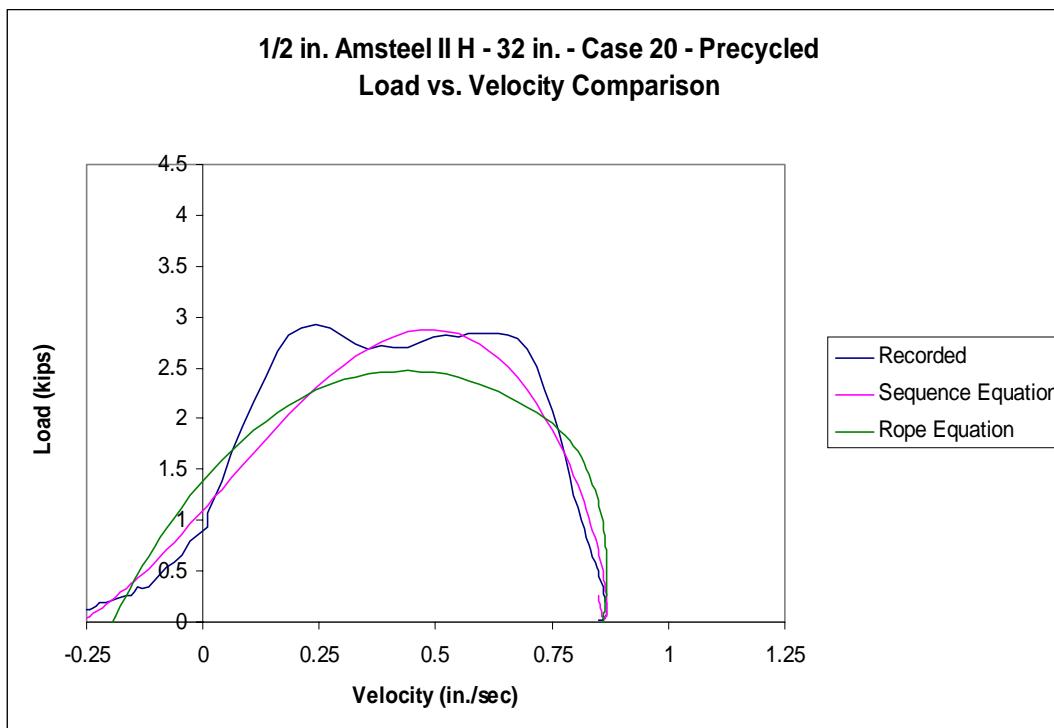


Figure C.4.30: Load vs. Velocity – Amsteel II H – Precycled – Cycle 20

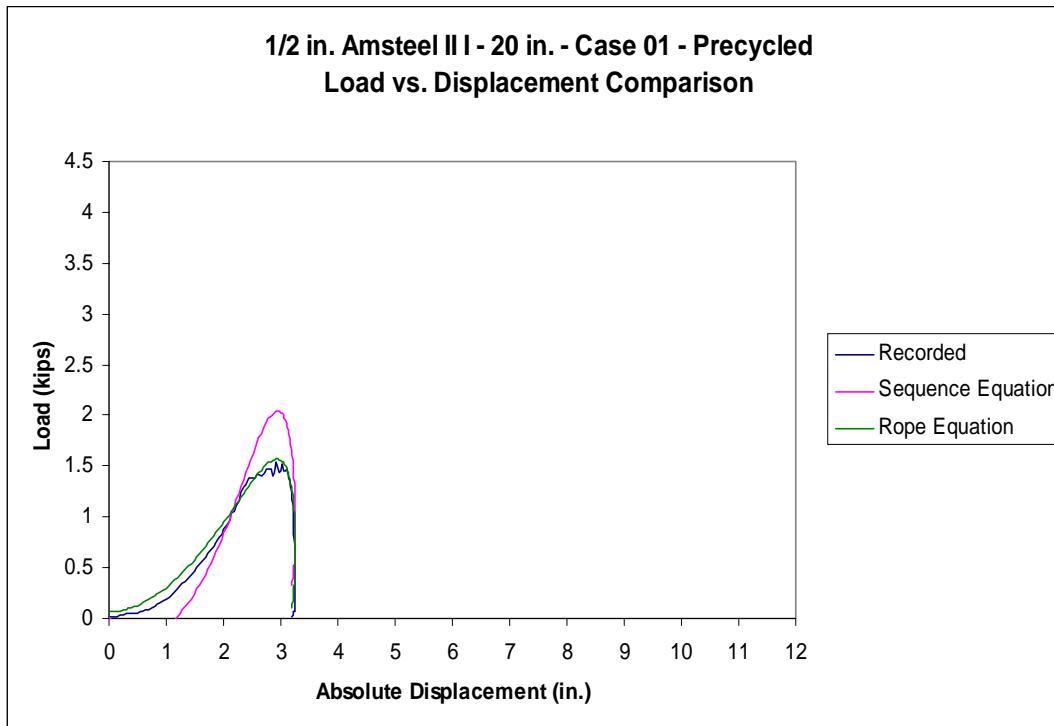


Figure C.4.31: Load vs. Displacement – Amsteel II I – Precycled – Cycle 1

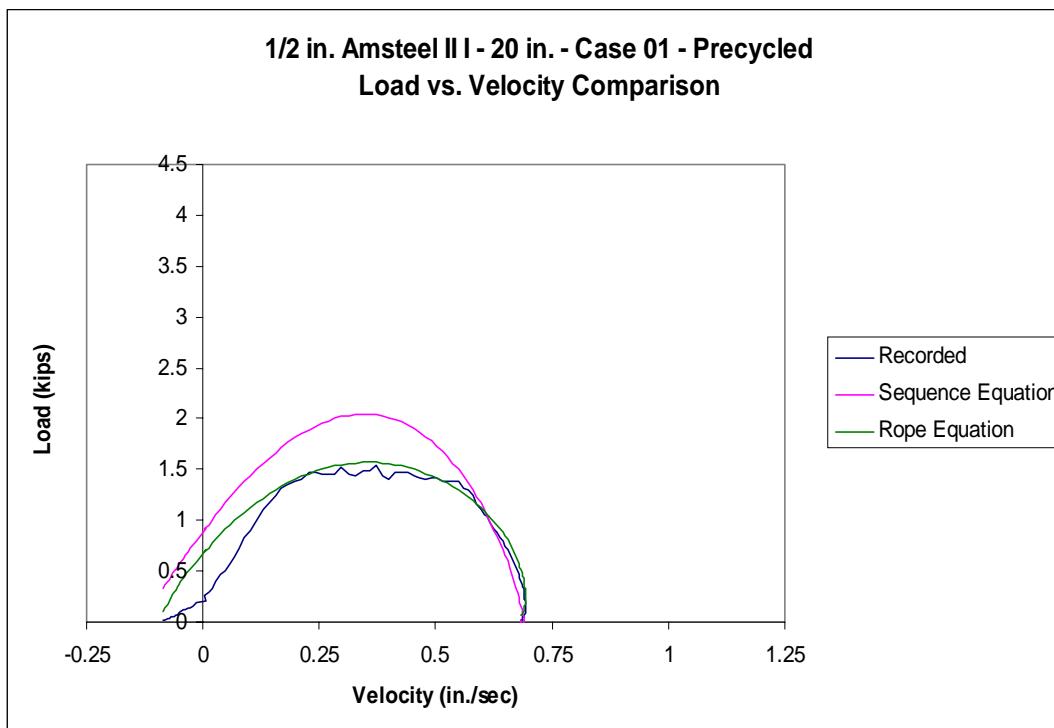


Figure C.4.32: Load vs. Velocity – Amsteel II I – Precycled – Cycle 1

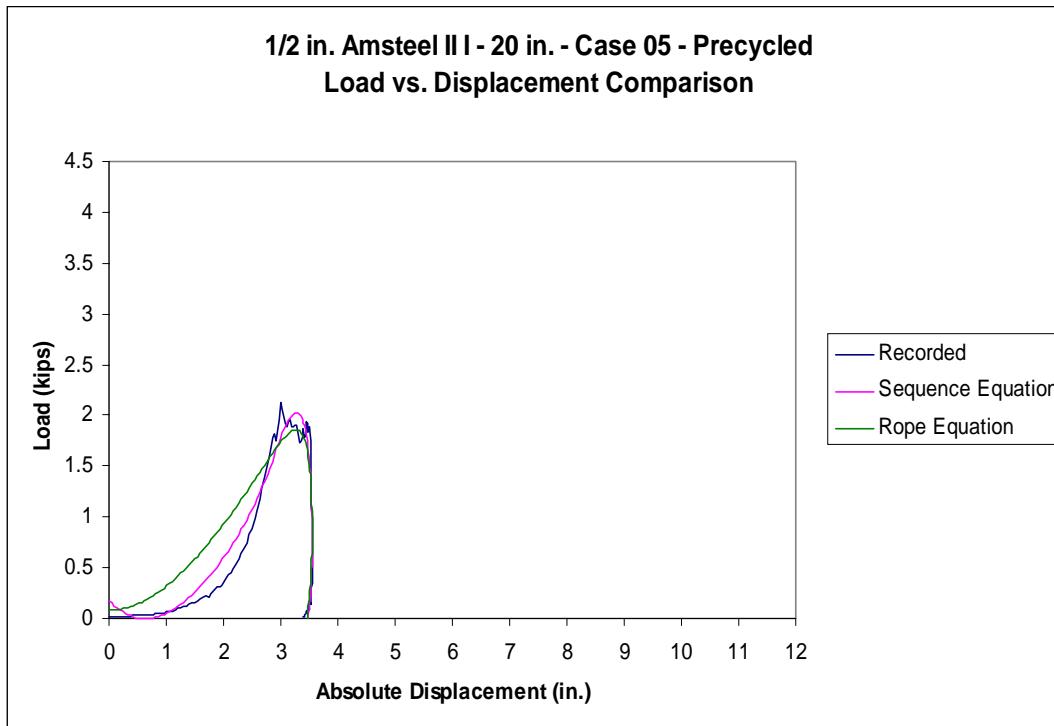


Figure C.4.33: Load vs. Displacement – Amsteel II I – Precycled – Cycle 5

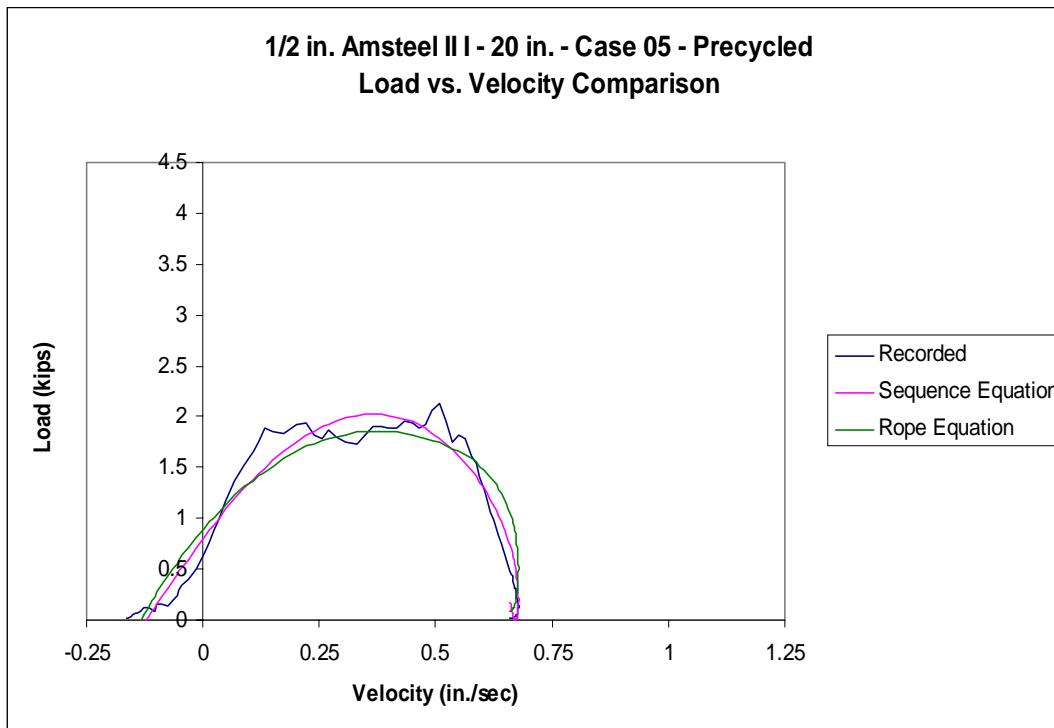


Figure C.4.34: Load vs. Velocity – Amsteel II I – Precycled – Cycle 5

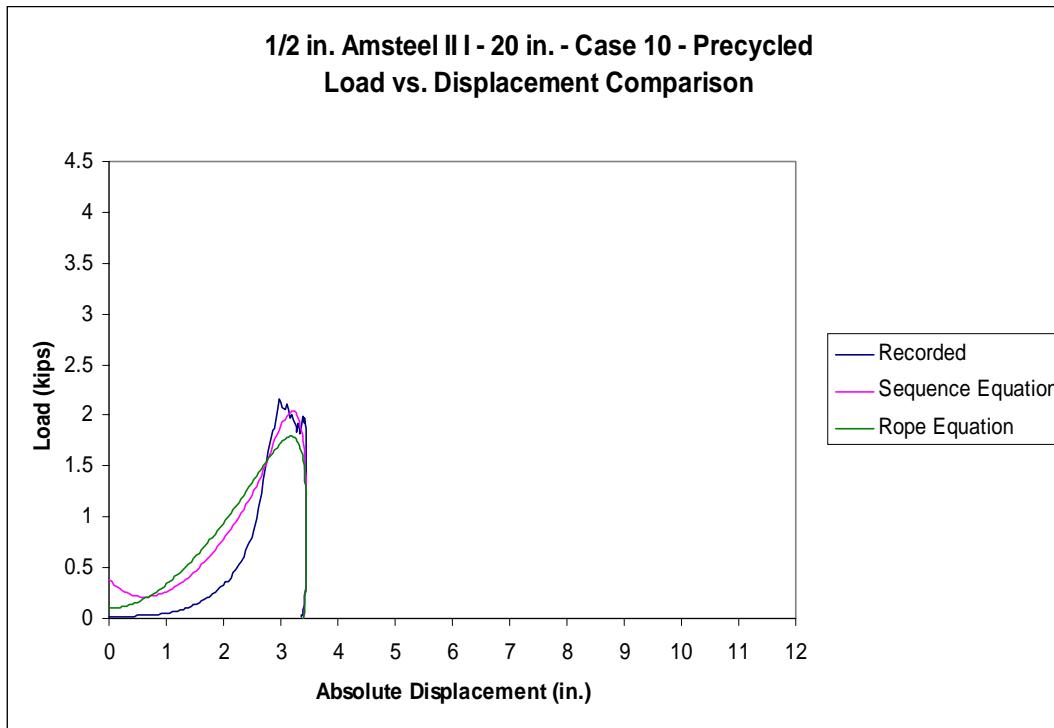


Figure C.4.35: Load vs. Displacement – Amsteel II I – Precycled – Cycle 10

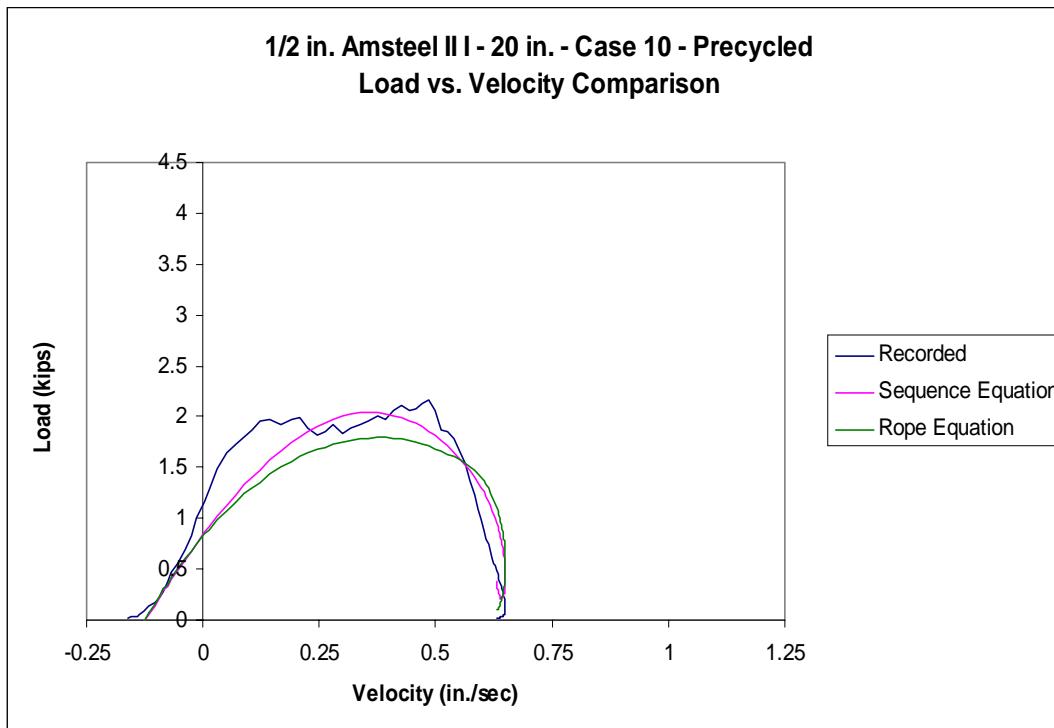


Figure C.4.36: Load vs. Velocity – Amsteel II I – Precycled – Cycle 10

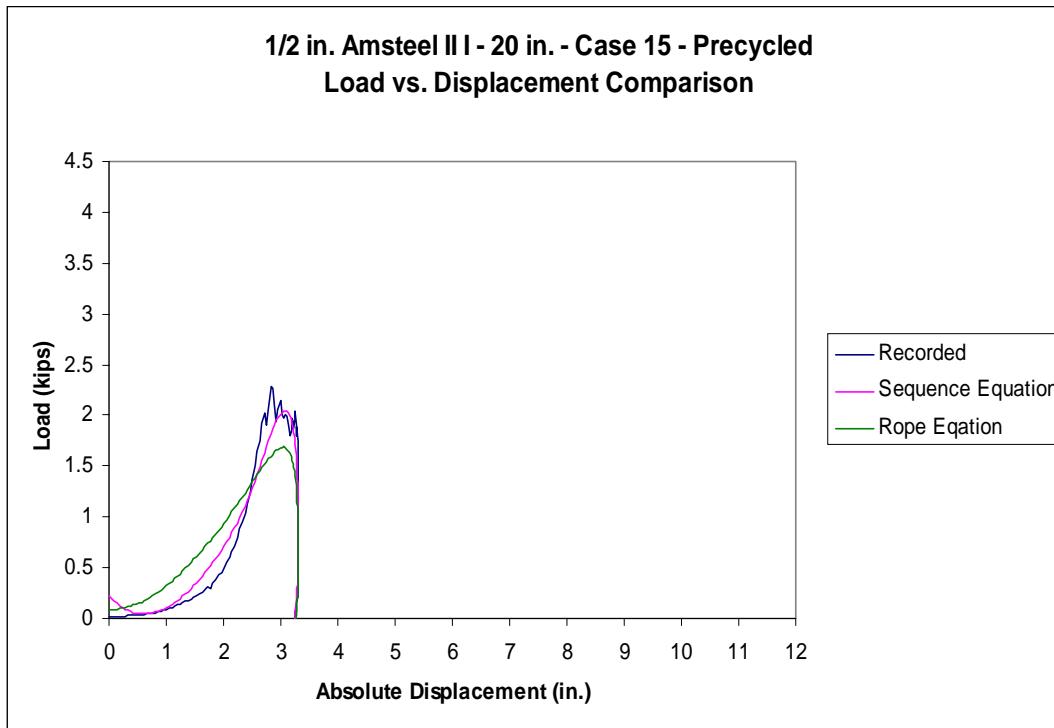


Figure C.4.37: Load vs. Displacement – Amsteel II I – Precycled – Cycle 15

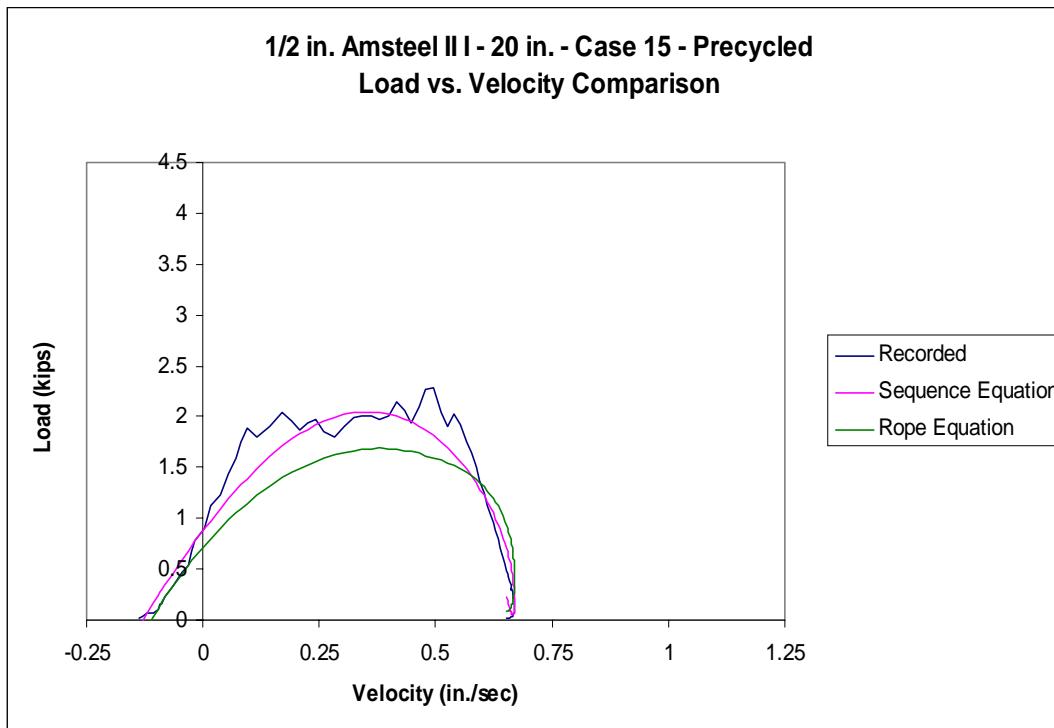


Figure C.4.38: Load vs. Velocity – Amsteel II I – Precycled – Cycle 15

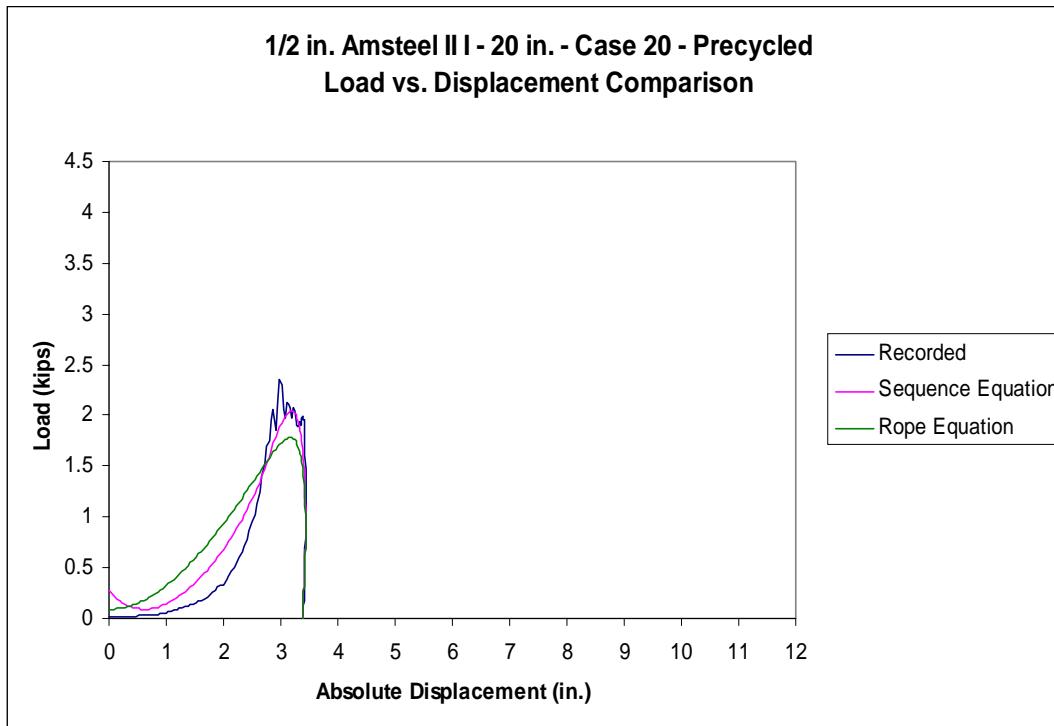


Figure C.4.39: Load vs. Displacement – Amsteel II I – Precycled – Cycle 20

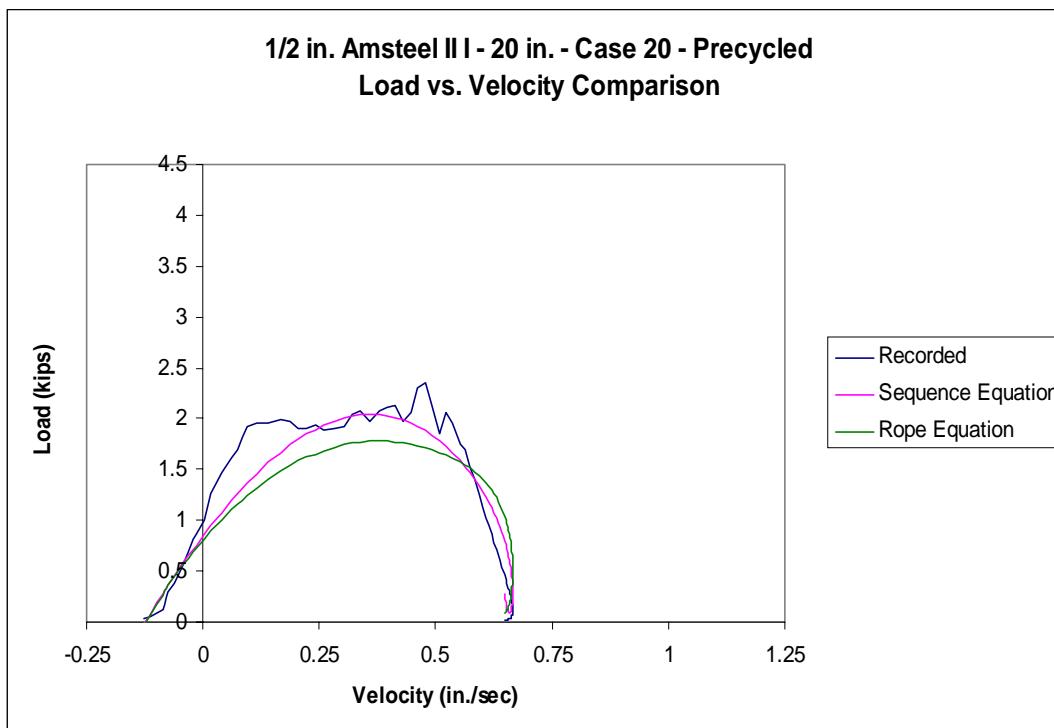


Figure C.4.40: Load vs. Velocity – Amsteel II I – Precycled – Cycle 20

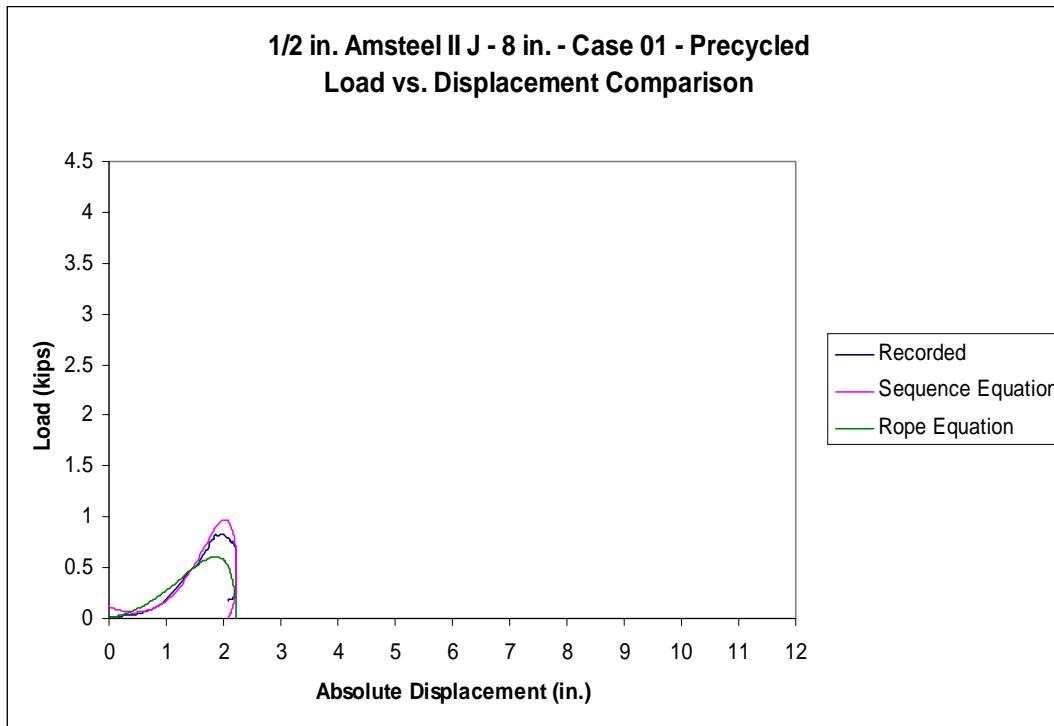


Figure C.4.41: Load vs. Displacement – Amsteel II J – Precycled – Cycle 1

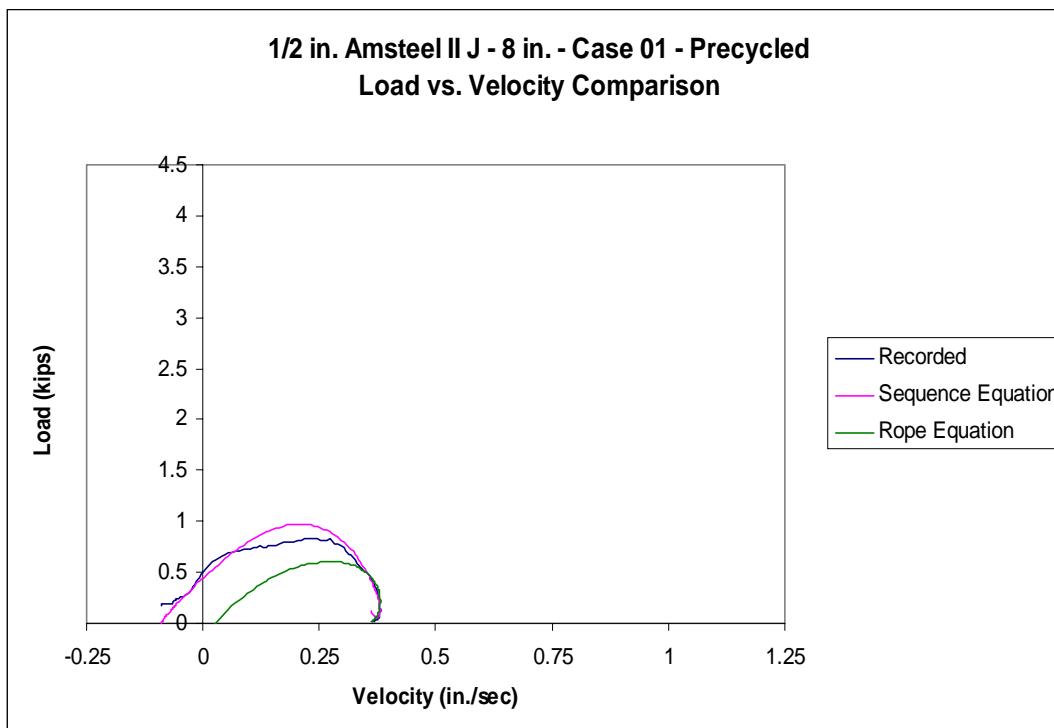


Figure C.4.42: Load vs. Velocity – Amsteel II J – Precycled – Cycle 1

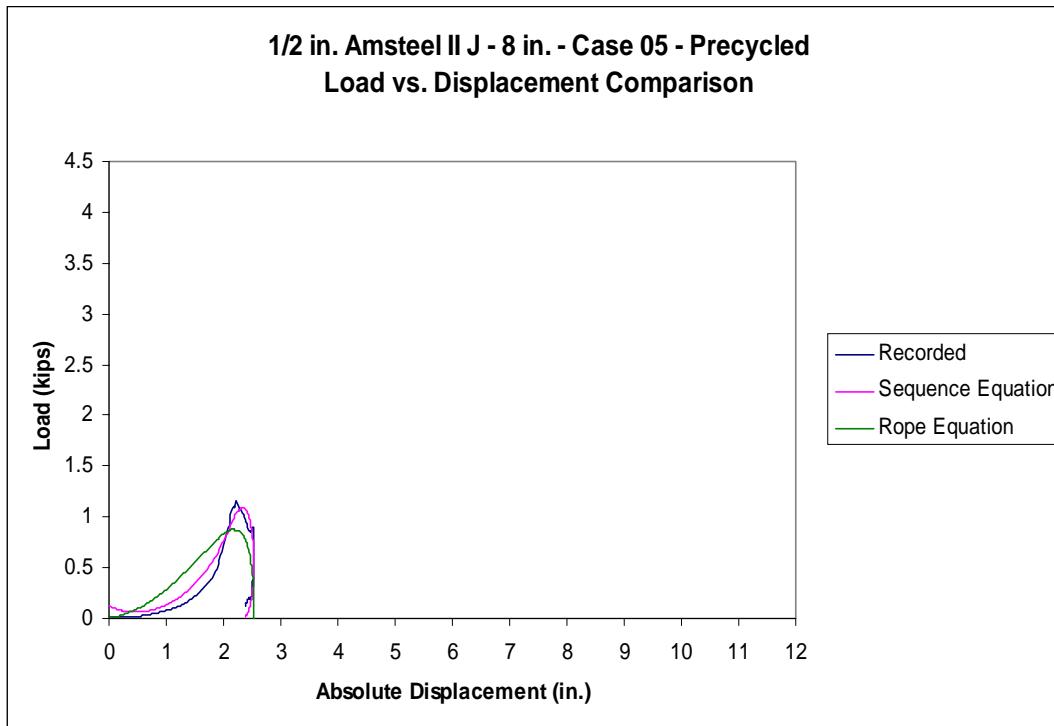


Figure C.4.43: Load vs. Displacement – Amsteel II J – Precycled – Cycle 5

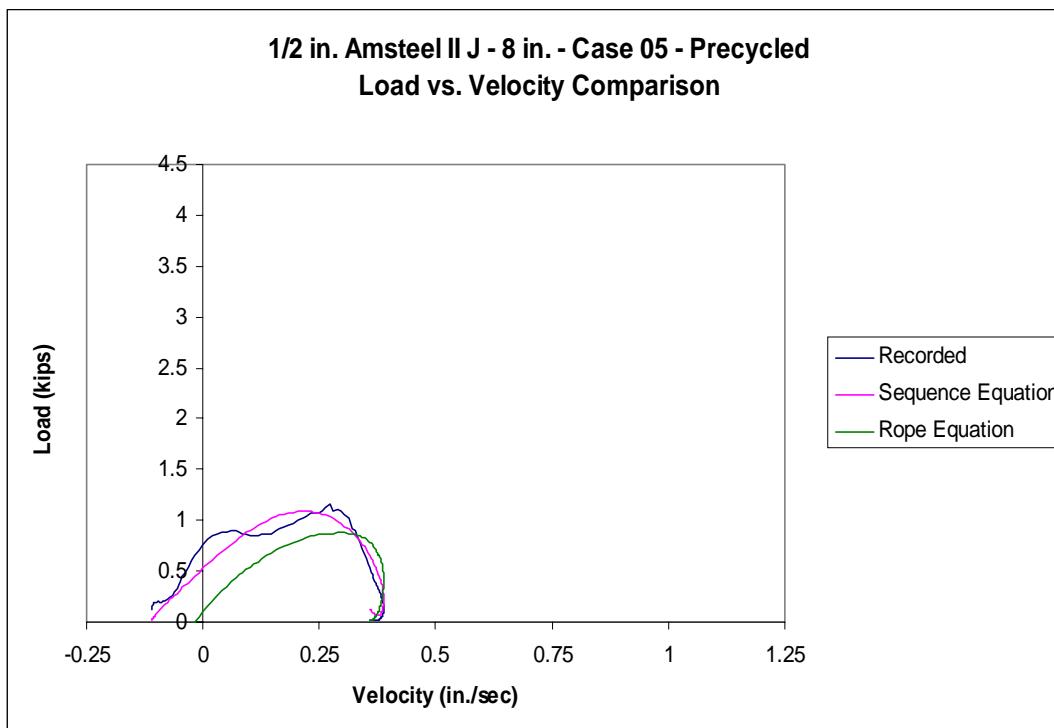


Figure C.4.44: Load vs. Velocity – Amsteel II J – Precycled – Cycle 5

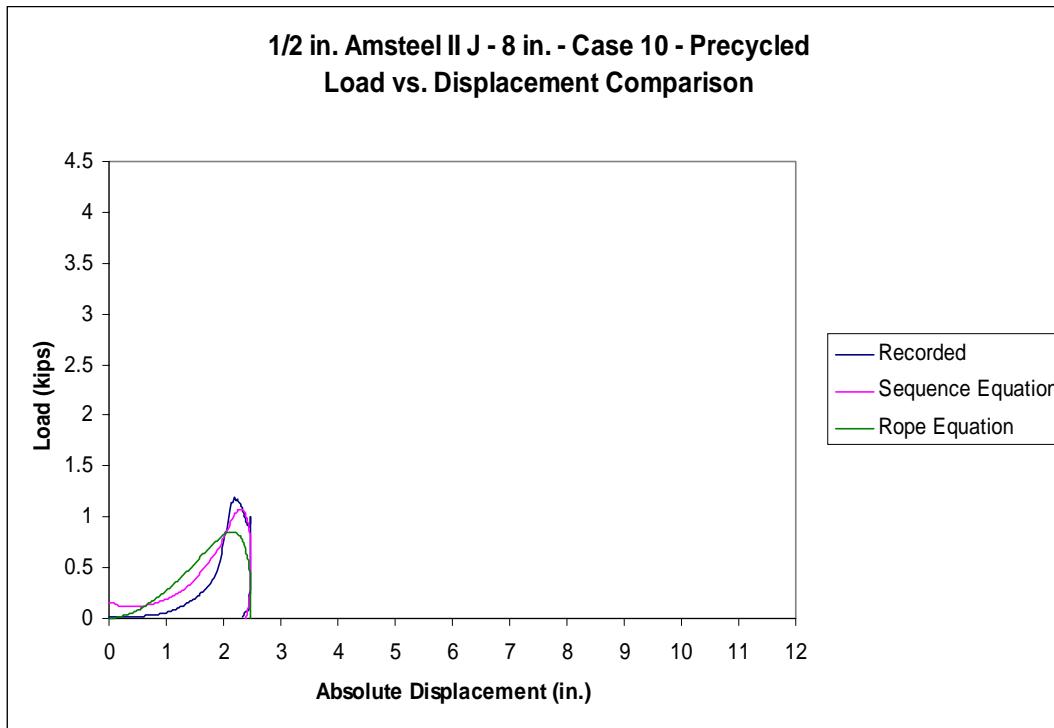


Figure C.4.45: Load vs. Displacement – Amsteel II J – Precycled – Cycle 10

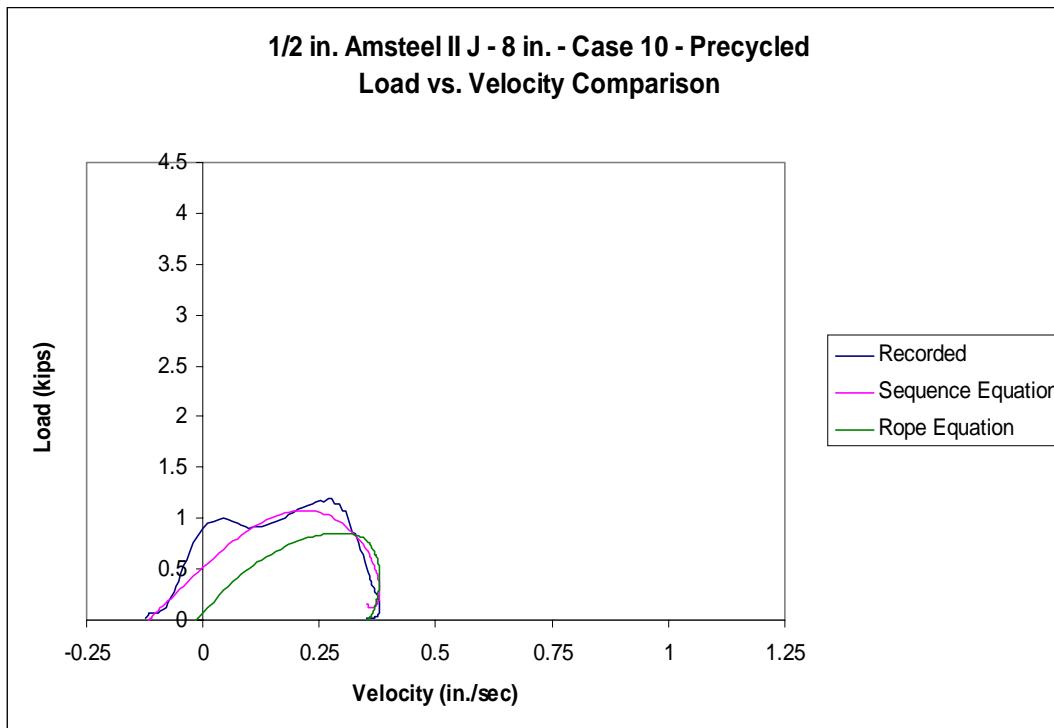


Figure C.4.46: Load vs. Velocity – Amsteel II J – Precycled – Cycle 10

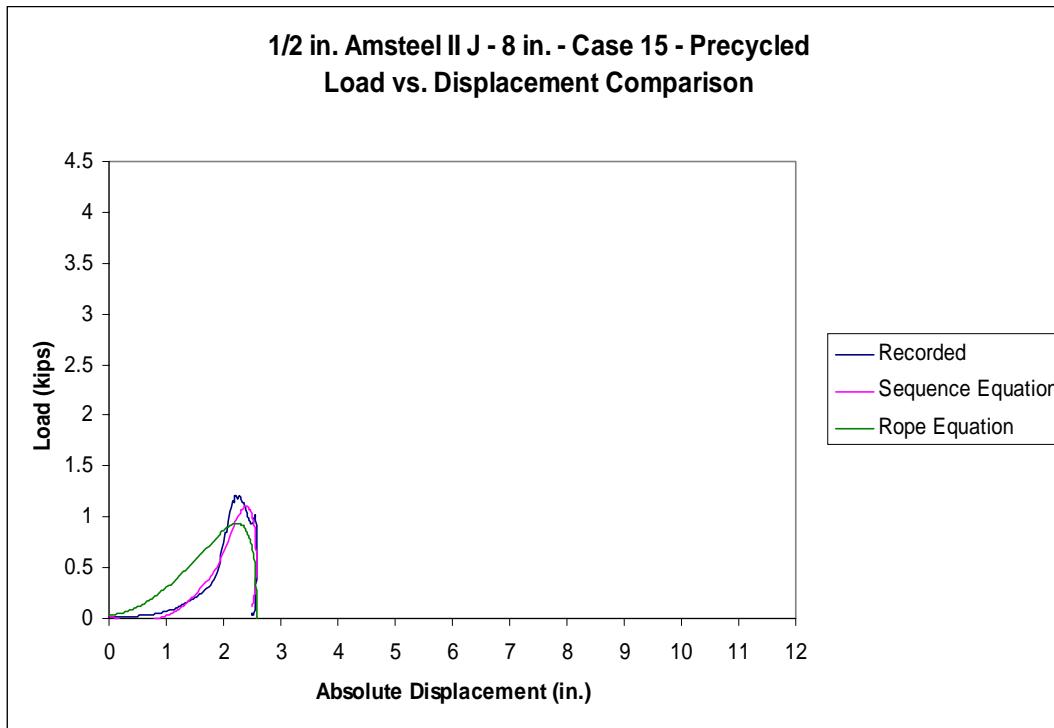


Figure C.4.47: Load vs. Displacement – Amsteel II J – Precycled – Cycle 15

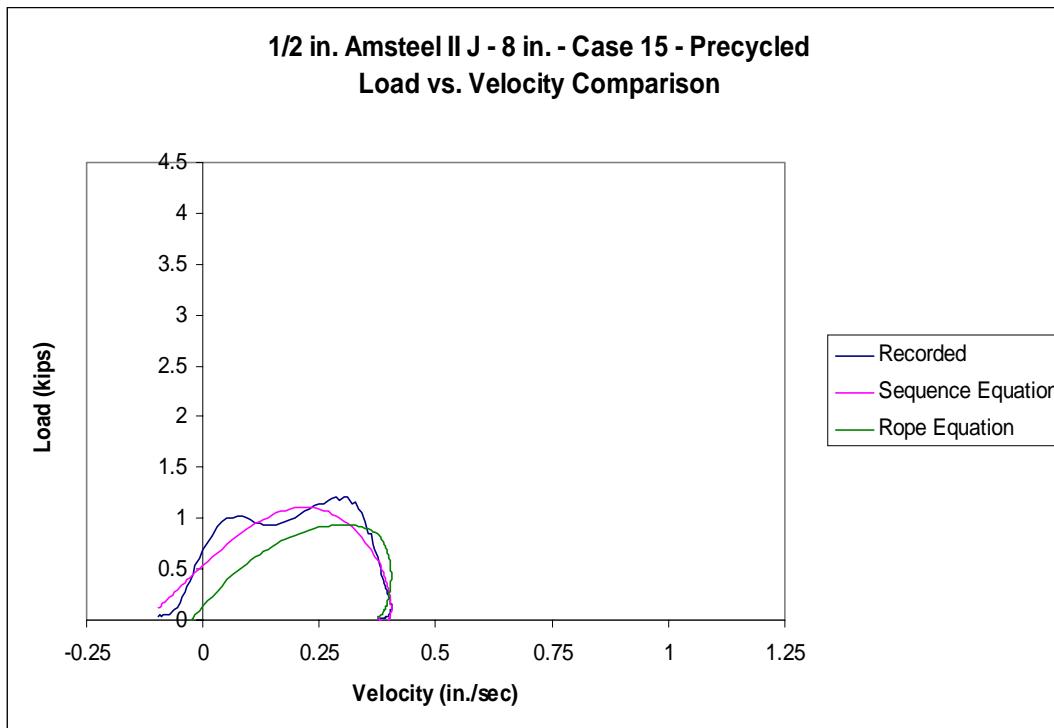


Figure C.4.48: Load vs. Velocity – Amsteel II J – Precycled – Cycle 15

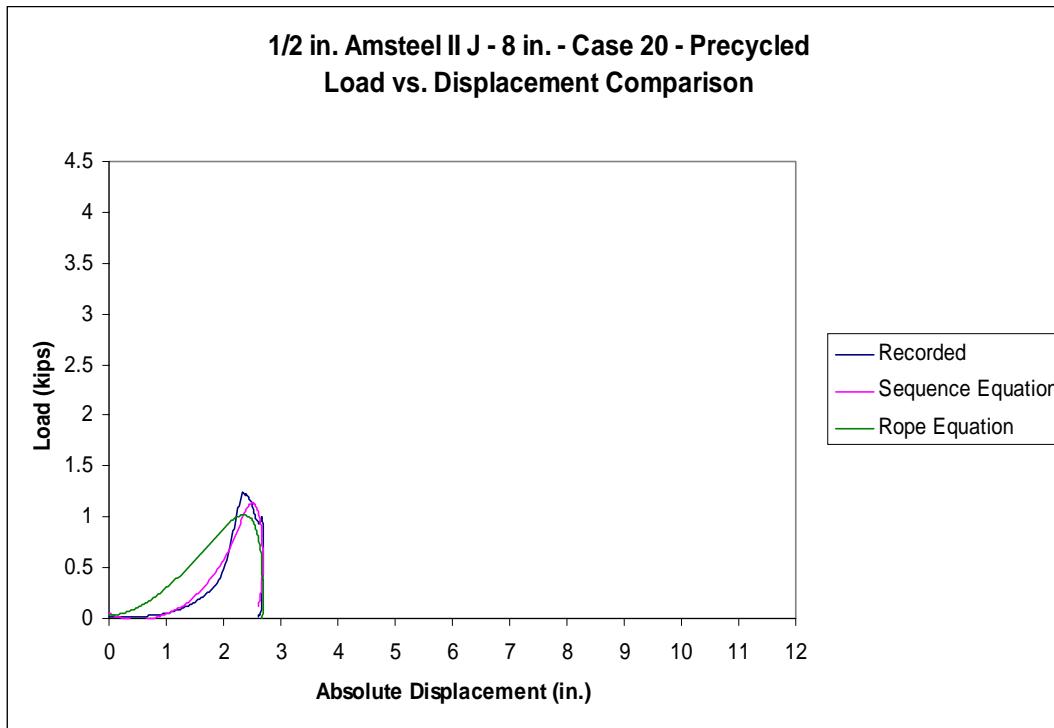


Figure C.4.49: Load vs. Displacement – Amsteel II J – Precycled – Cycle 20

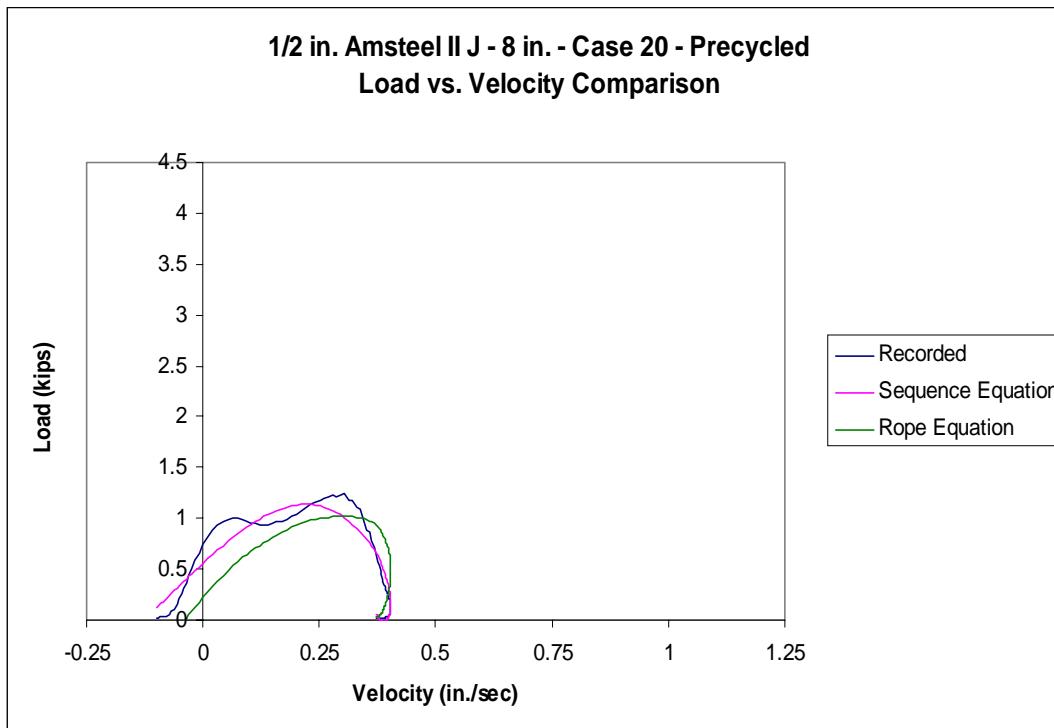


Figure C.4.50: Load vs. Velocity – Amsteel II J – Precycled – Cycle 20

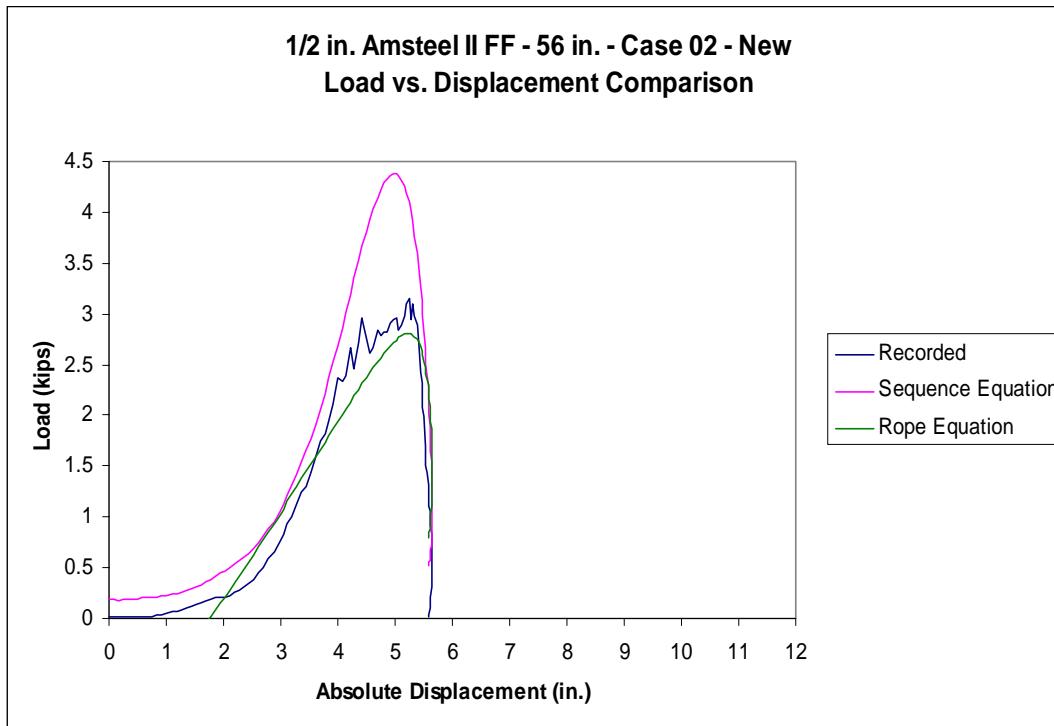


Figure C.4.51: Load vs. Displacement – Amsteel II FF – New – Cycle 02

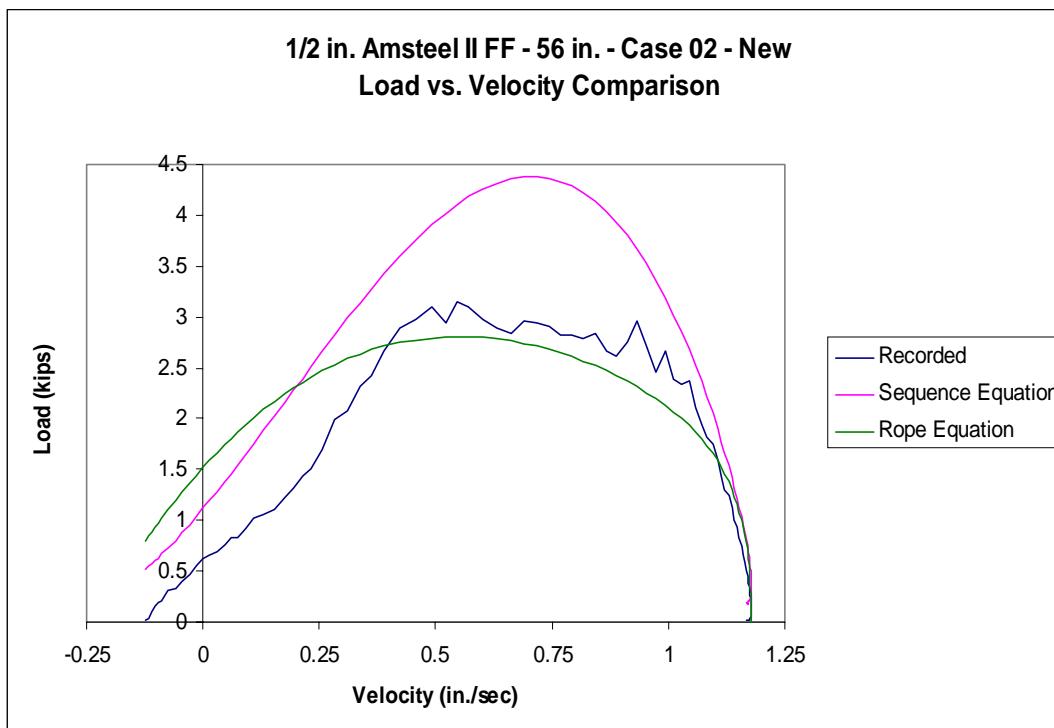


Figure C.4.52: Load vs. Velocity – Amsteel II FF – New – Cycle 02

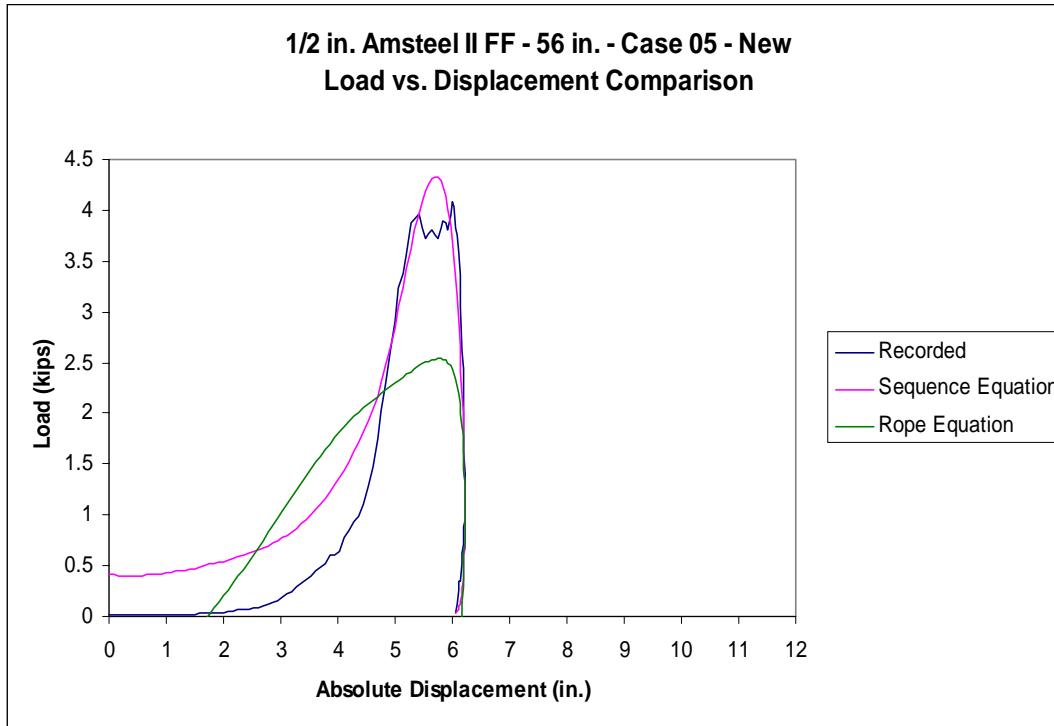


Figure C.4.53: Load vs. Displacement – Amsteel II FF – New – Cycle 05

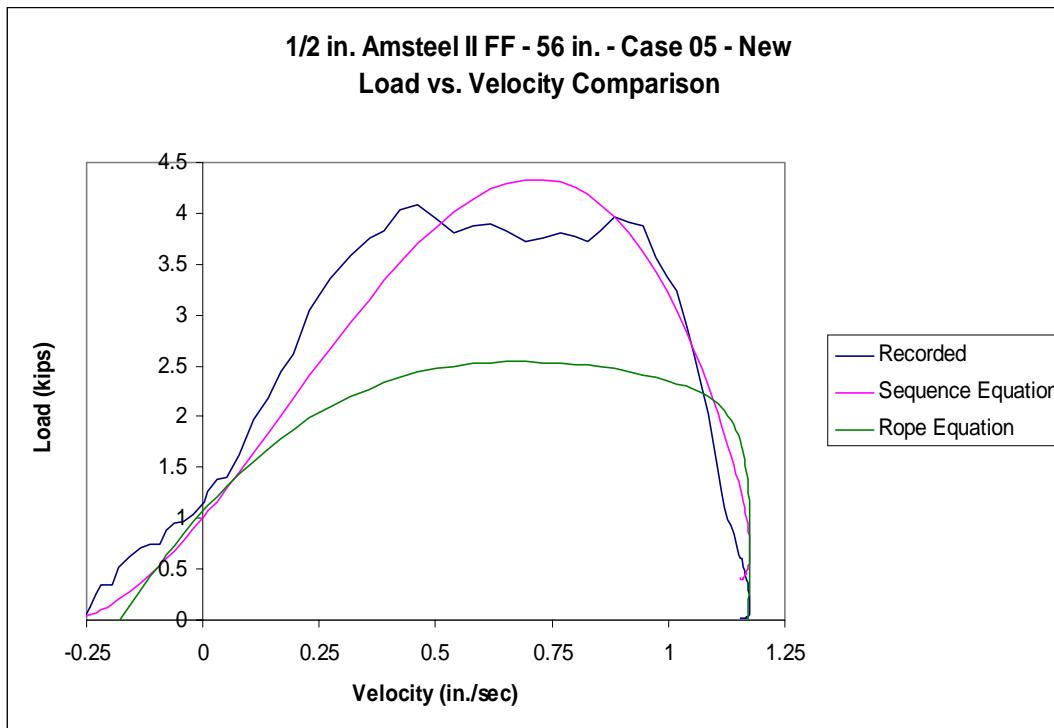


Figure C.4.54: Load vs. Velocity – Amsteel II FF – New – Cycle 05

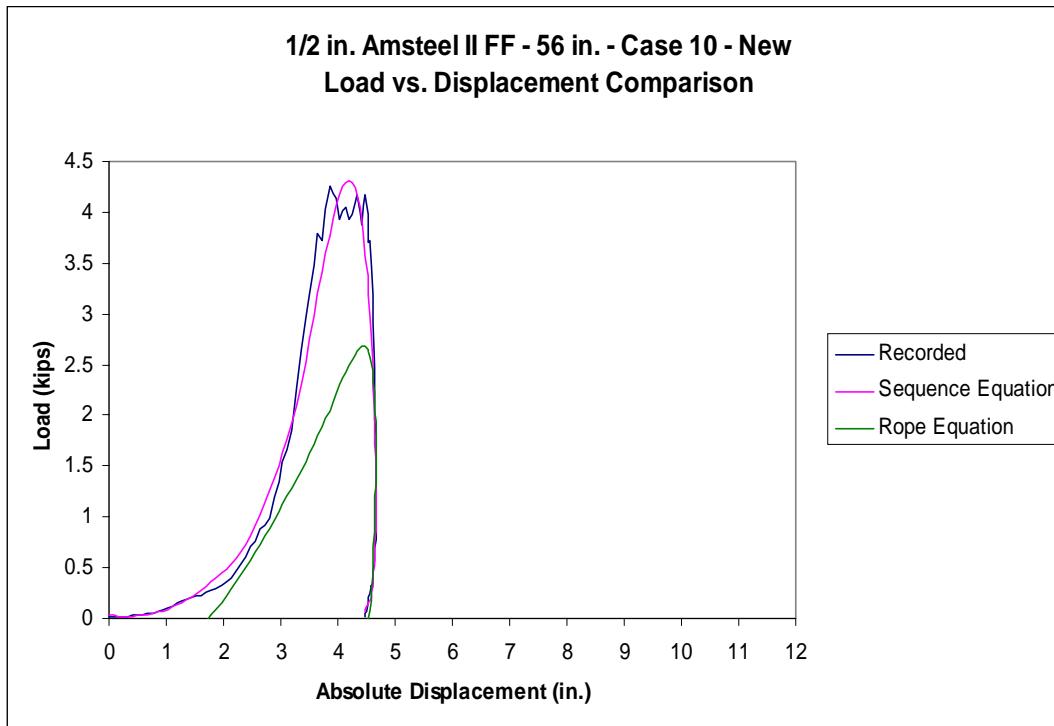


Figure C.4.55: Load vs. Displacement – Amsteel II FF – New – Cycle 10

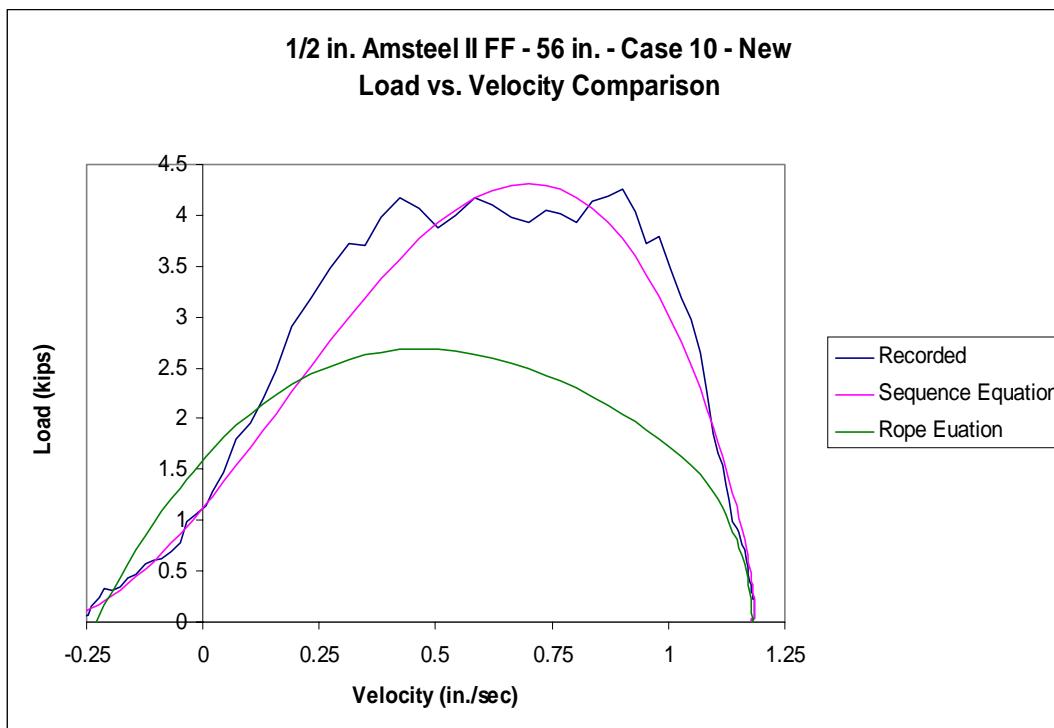


Figure C.4.56: Load vs. Velocity – Amsteel II FF – New – Cycle 10

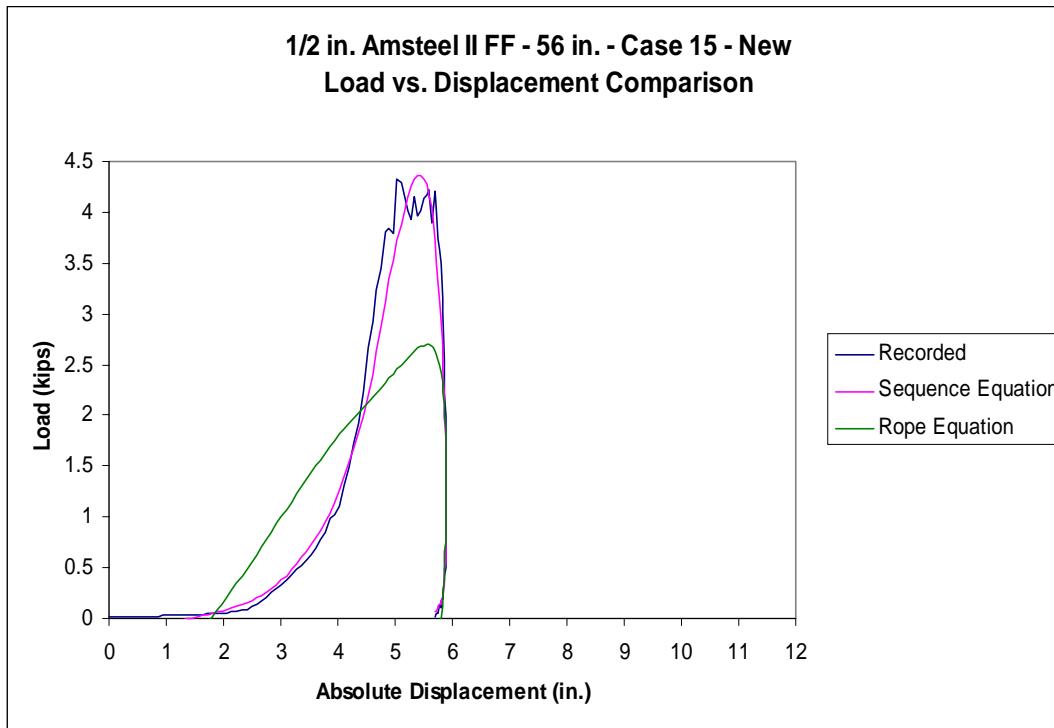


Figure C.4.57: Load vs. Displacement – Amsteel II FF – New – Cycle 15

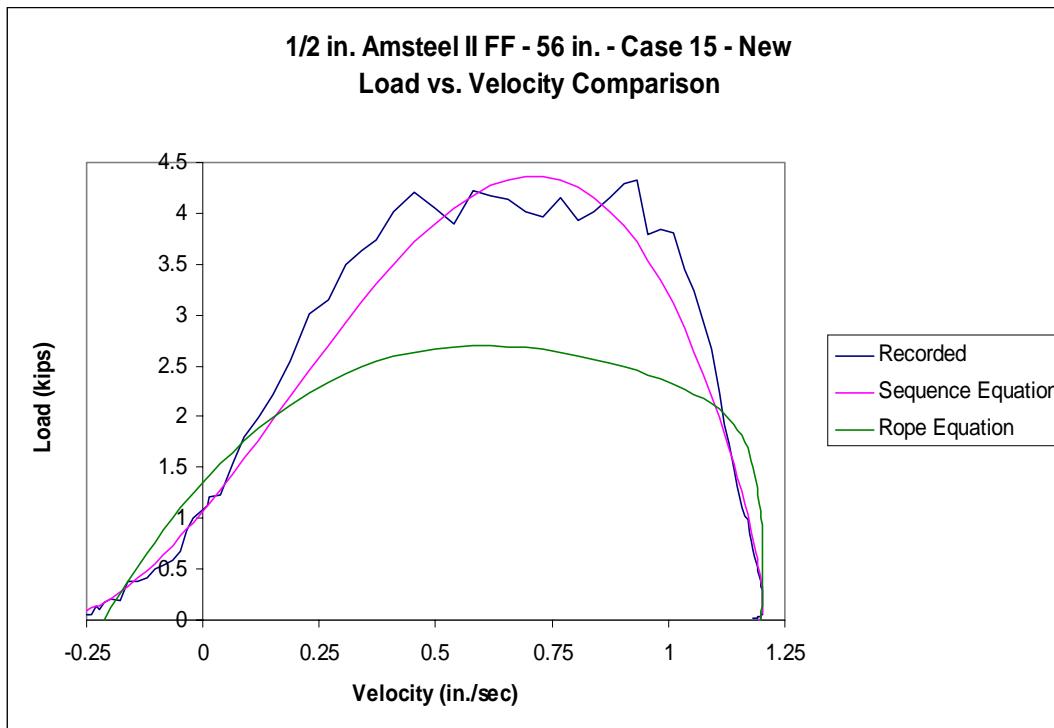


Figure C.4.58: Load vs. Velocity – Amsteel II FF – New – Cycle 15

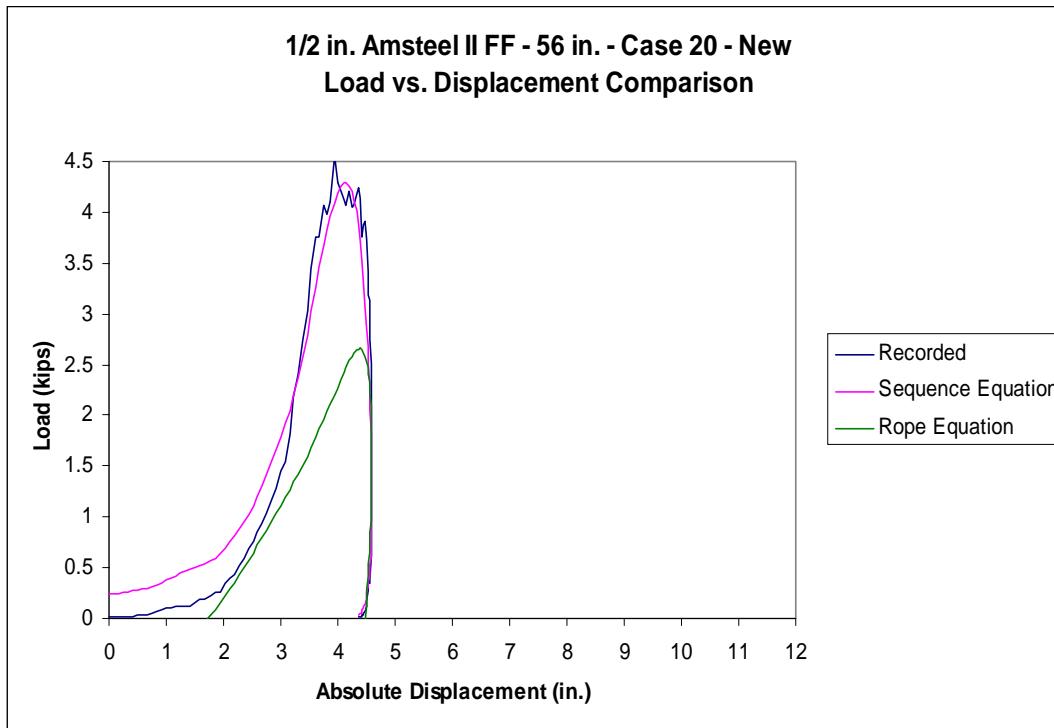


Figure C.4.59: Load vs. Displacement – Amsteel II FF – New – Cycle 20

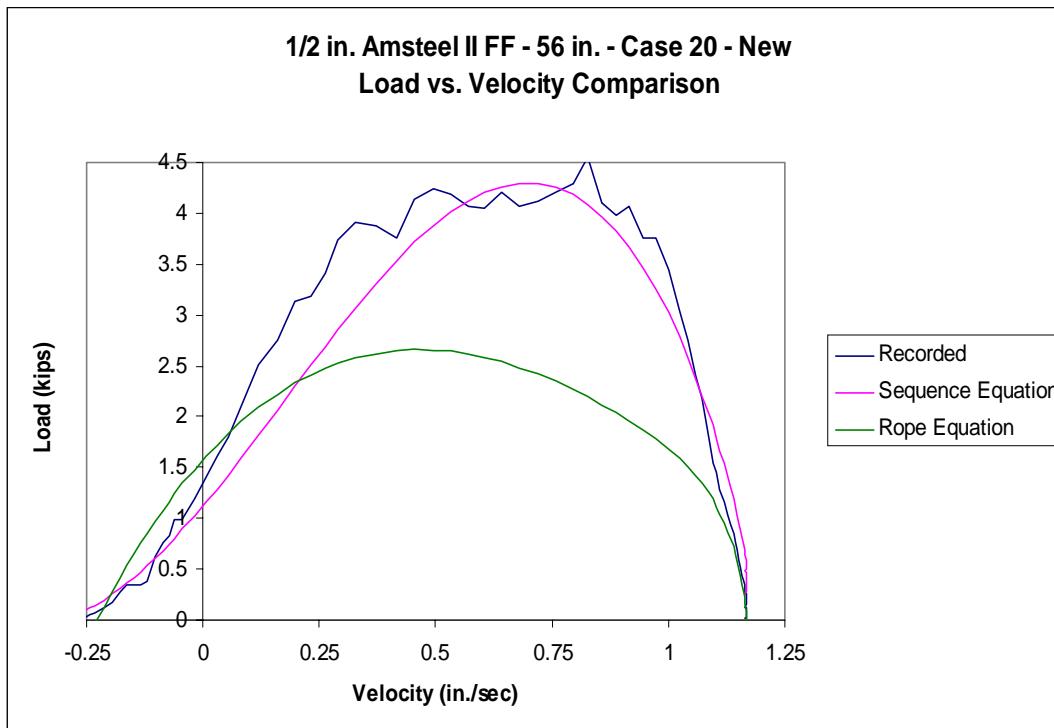


Figure C.4.60: Load vs. Velocity – Amsteel II FF – New – Cycle 20

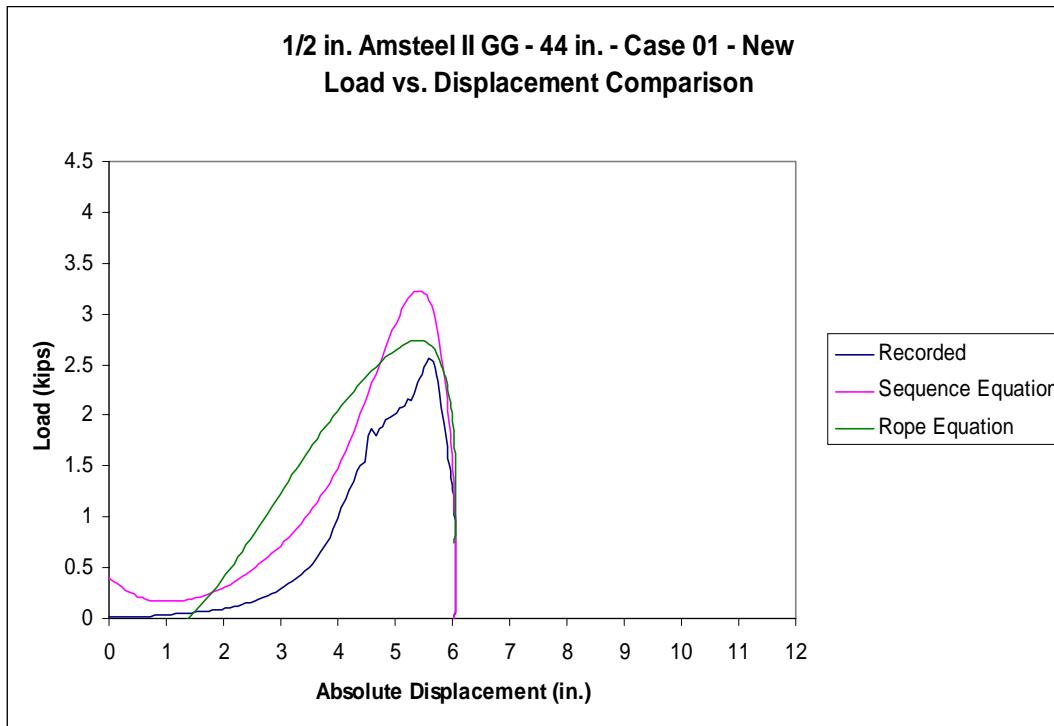


Figure C.4.61: Load vs. Displacement – Amsteel II GG – New – Cycle 1

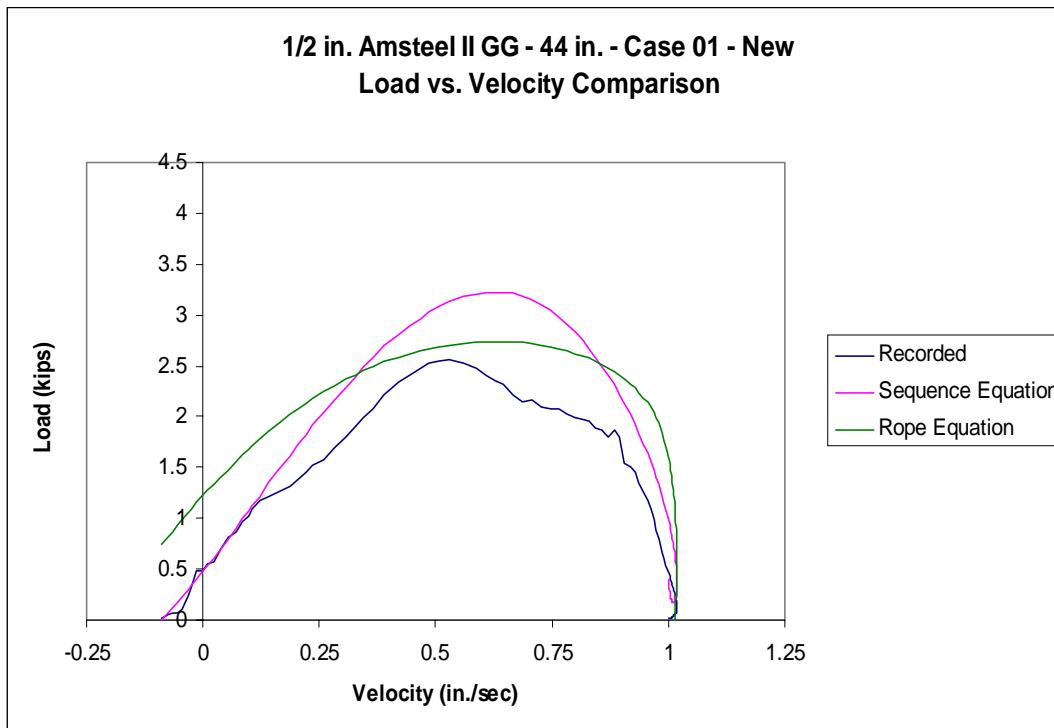


Figure C.4.62: Load vs. Velocity – Amsteel II GG – New – Cycle 1

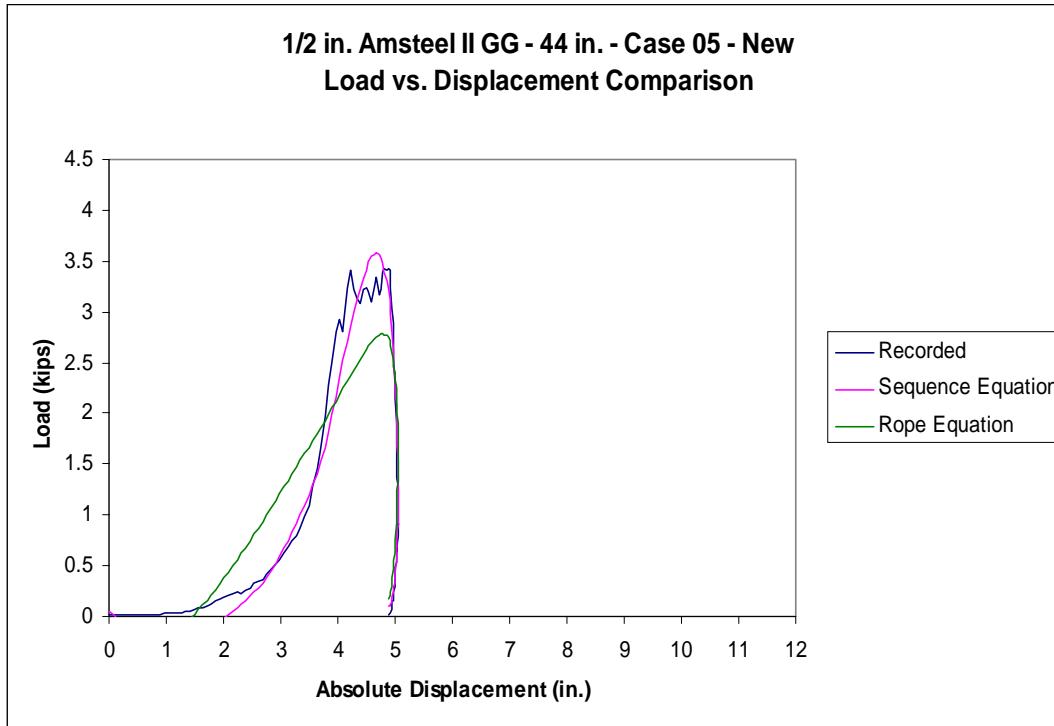


Figure C.4.63: Load vs. Displacement – Amsteel II GG – New – Cycle 5

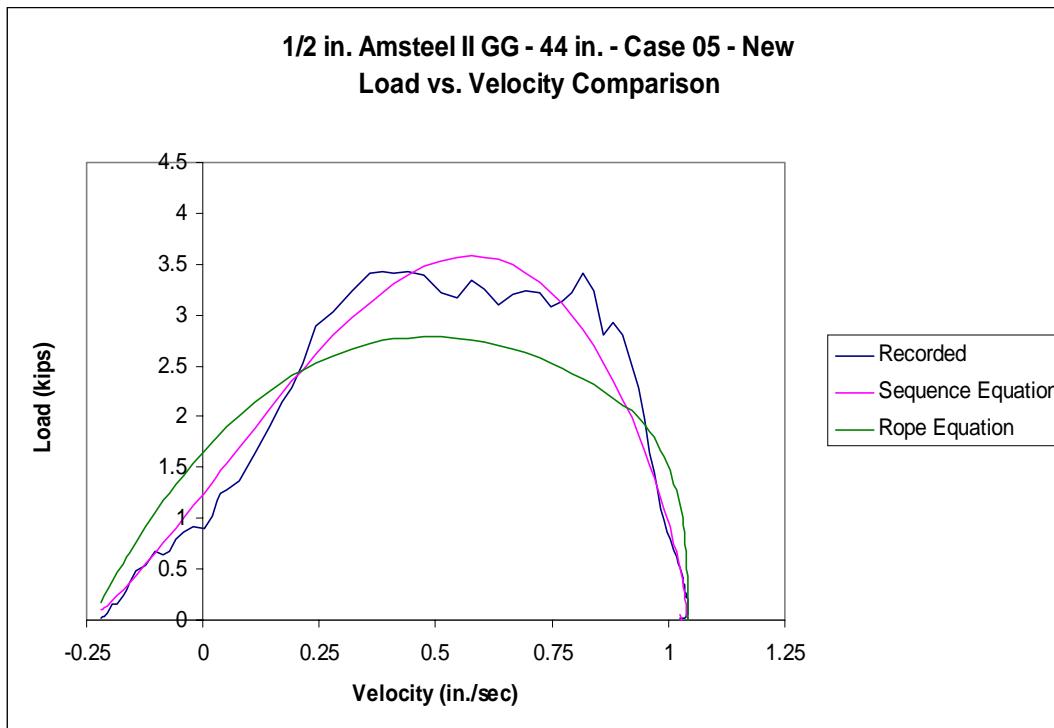


Figure C.4.64: Load vs. Velocity – Amsteel II GG – New – Cycle 5

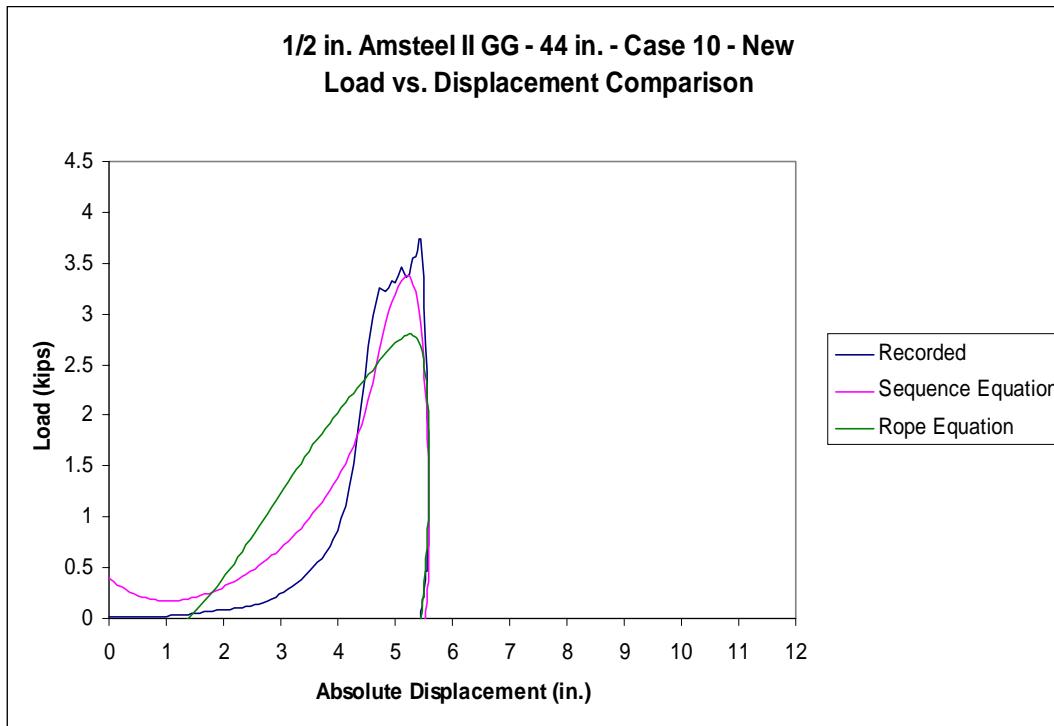


Figure C.4.65: Load vs. Displacement – Amsteel II GG – New – Cycle 10

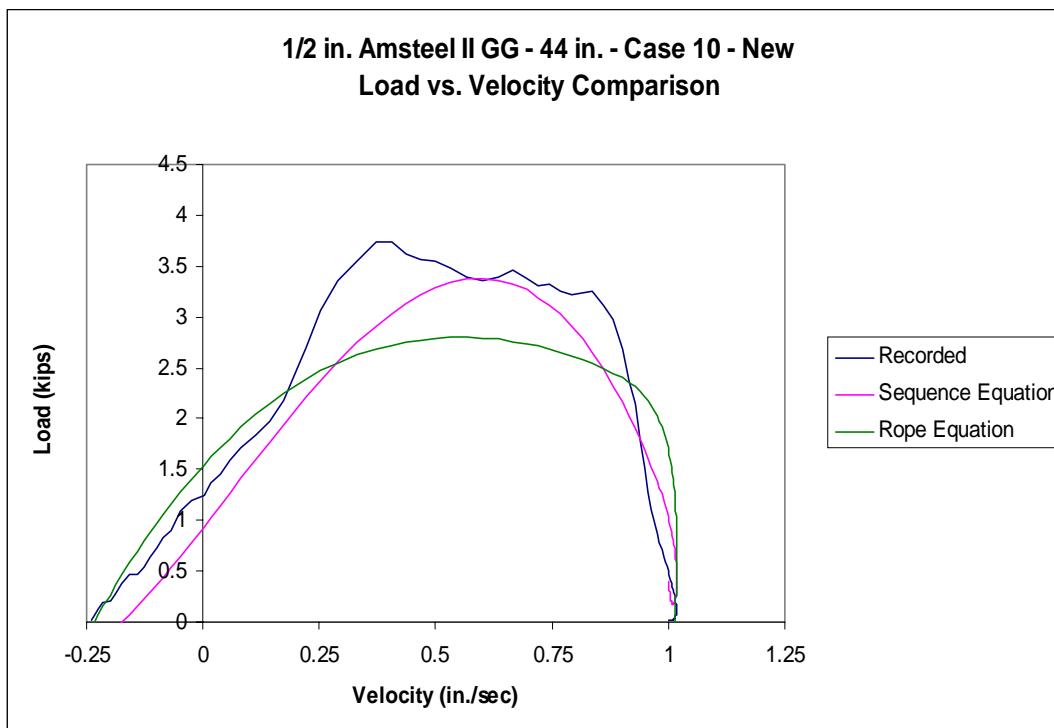


Figure C.4.66: Load vs. Velocity – Amsteel II GG – New – Cycle 10

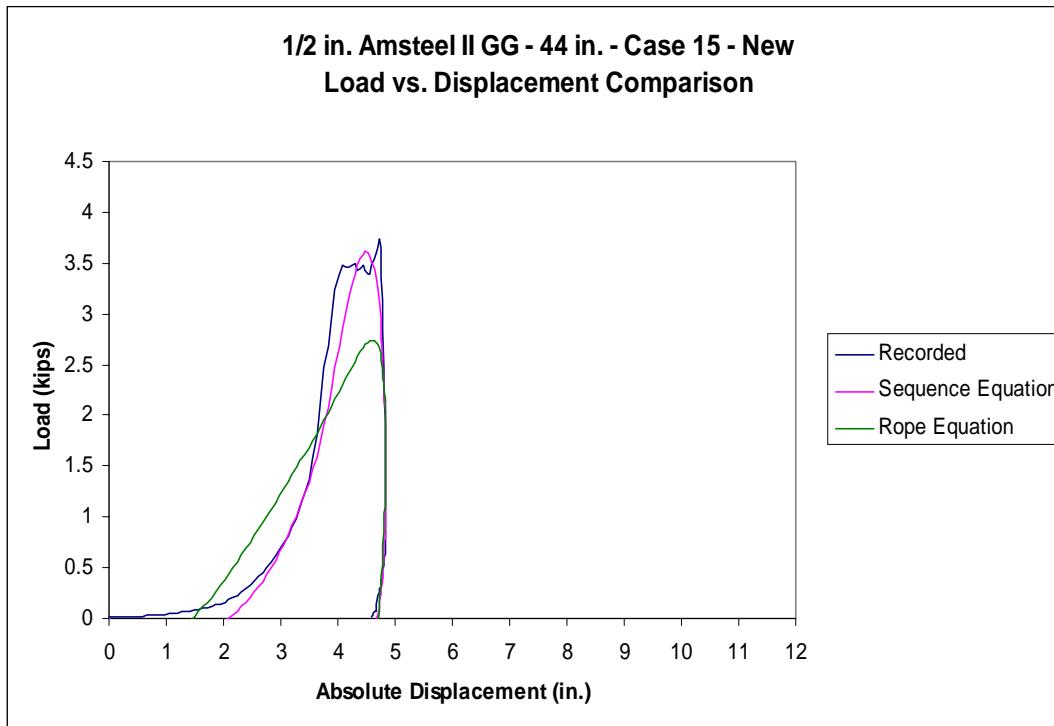


Figure C.4.67: Load vs. Displacement – Amsteel II GG – New – Cycle 15

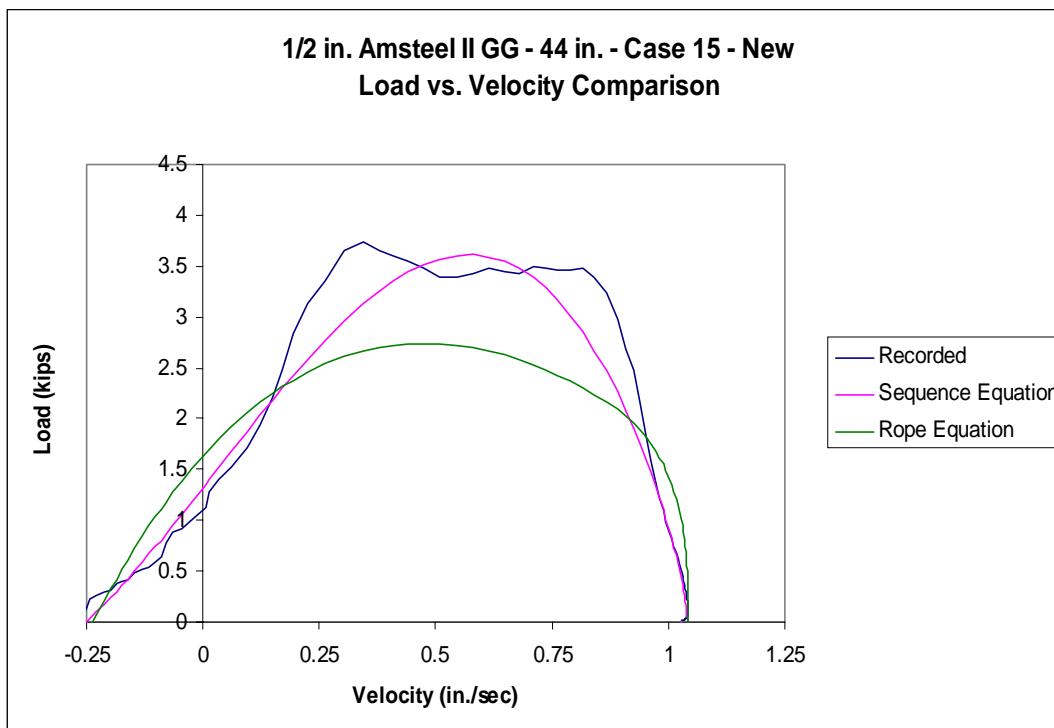


Figure C.4.68: Load vs. Velocity – Amsteel II GG – New – Cycle 15

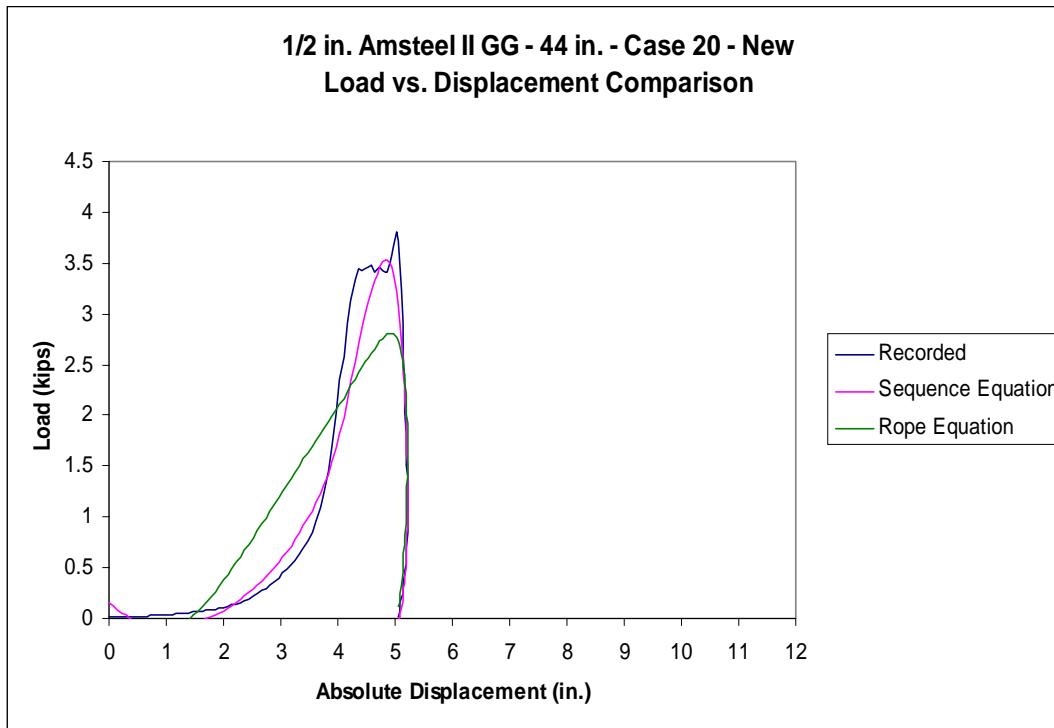


Figure C.4.69: Load vs. Displacement – Amsteel II GG – New – Cycle 20

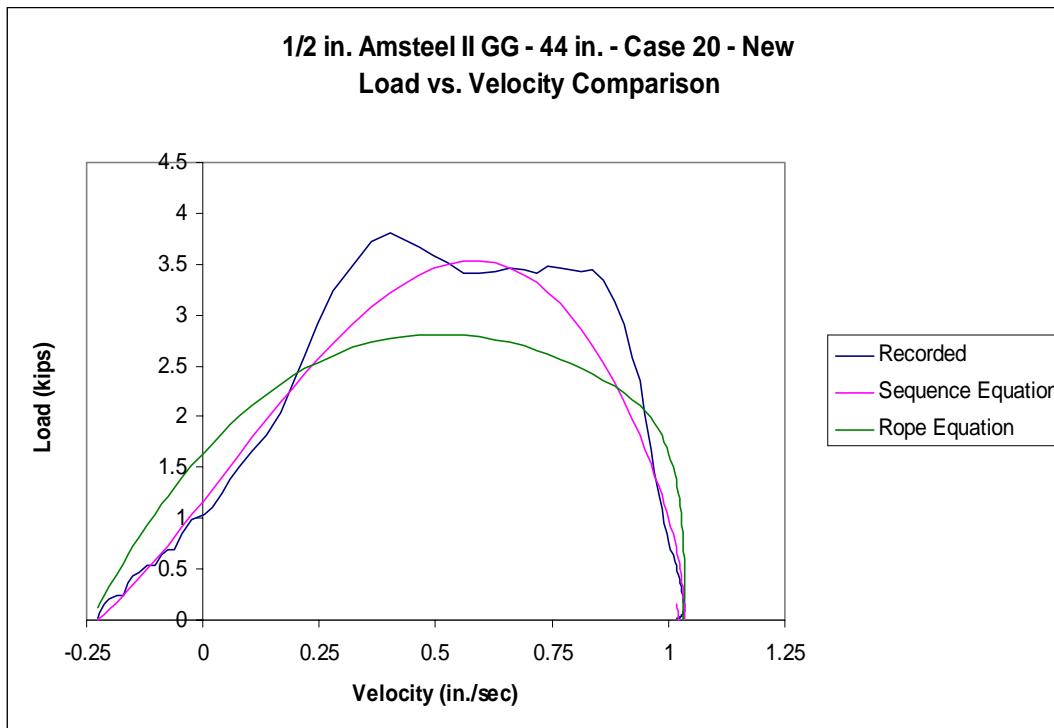


Figure C.4.70: Load vs. Velocity – Amsteel II GG – New – Cycle 20

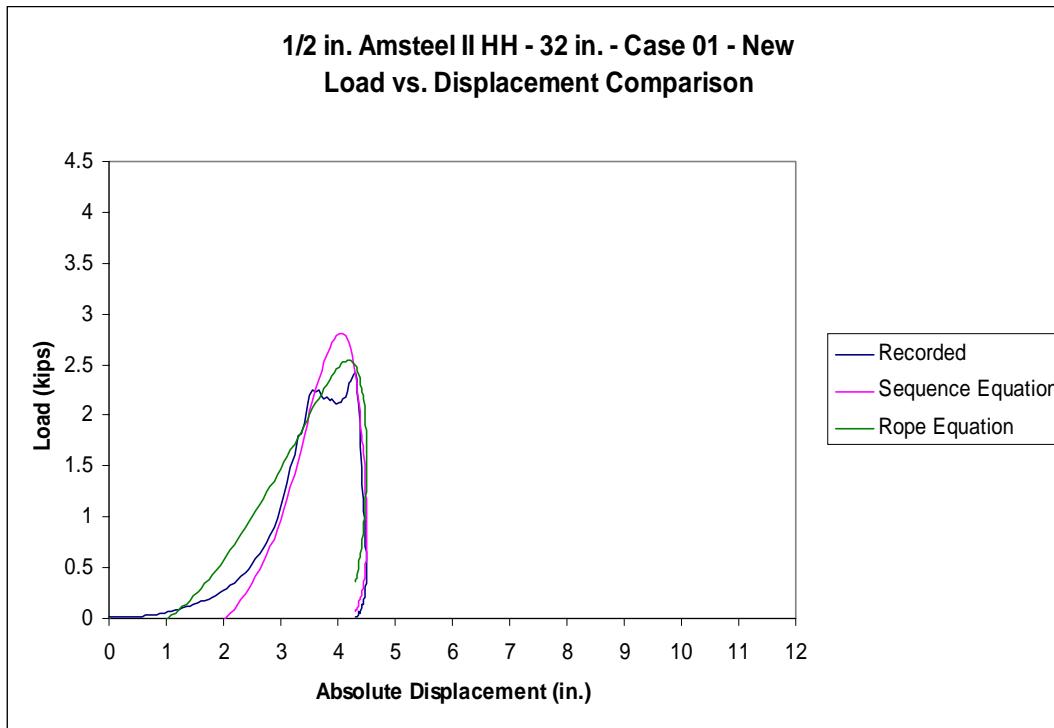


Figure C.4.71: Load vs. Displacement – Amsteel II HH – New – Cycle 1

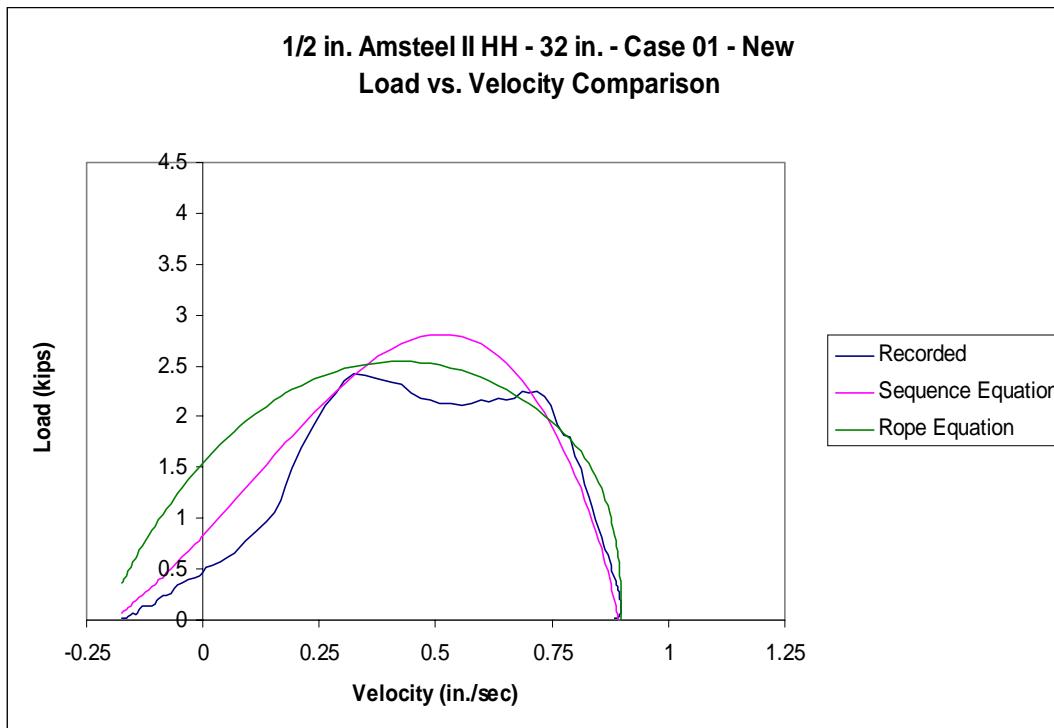


Figure C.4.72: Load vs. Velocity – Amsteel II HH – New – Cycle 1

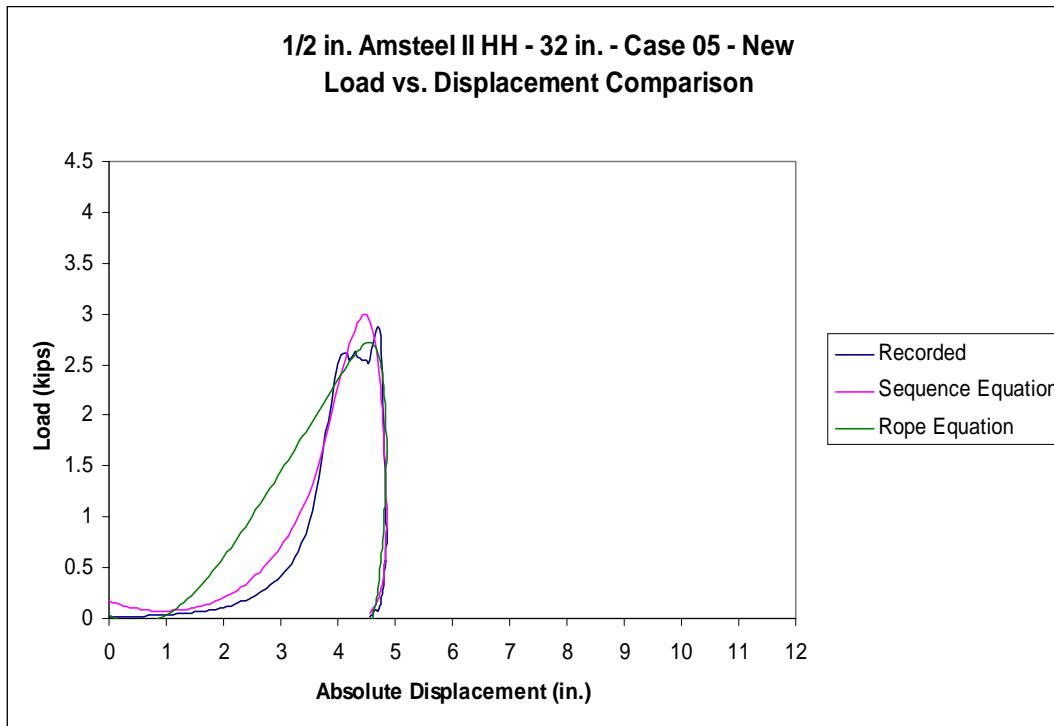


Figure C.4.73: Load vs. Displacement – Amsteel II HH – New – Cycle 5

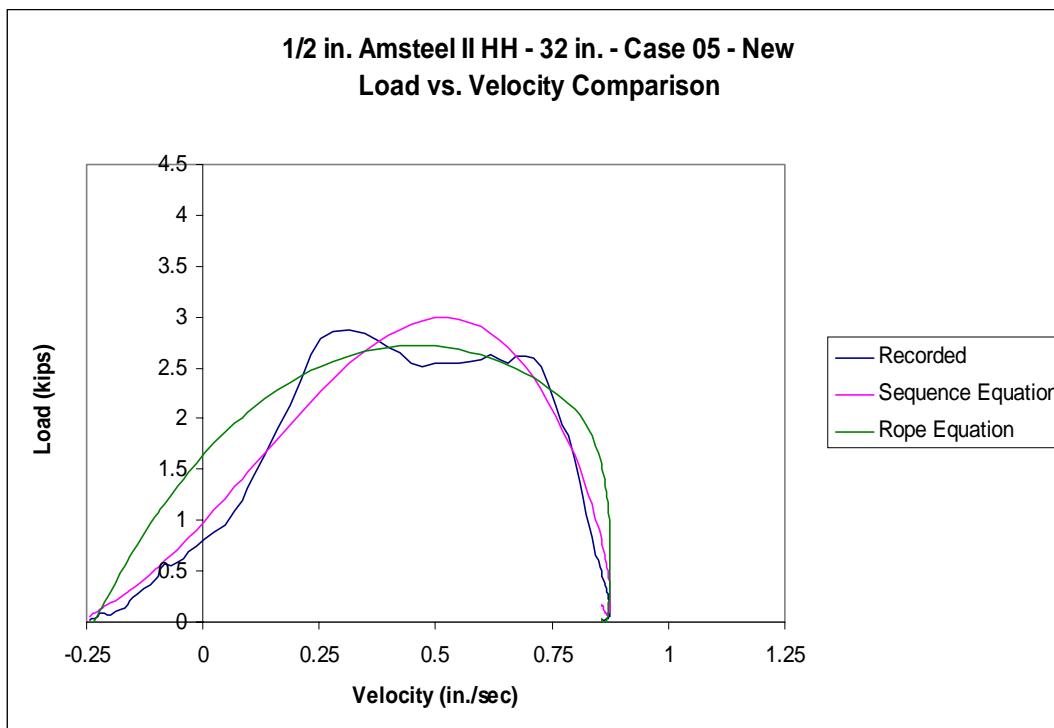


Figure C.4.74: Load vs. Velocity – Amsteel II HH – New – Cycle 5

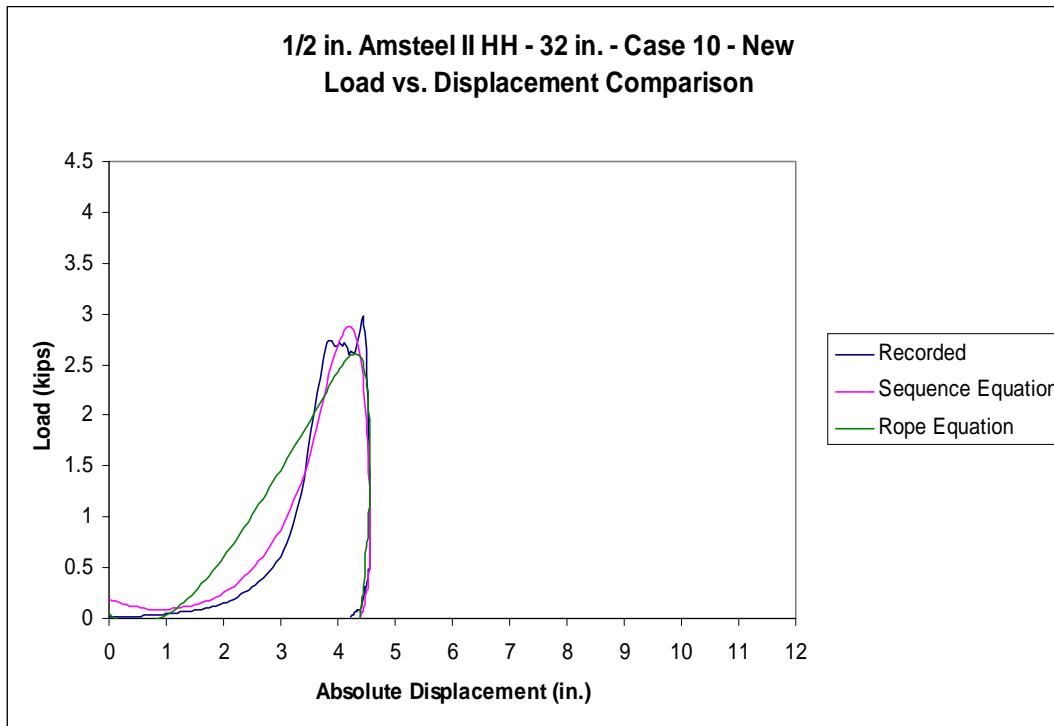


Figure C.4.75: Load vs. Displacement – Amsteel II HH – New – Cycle 10

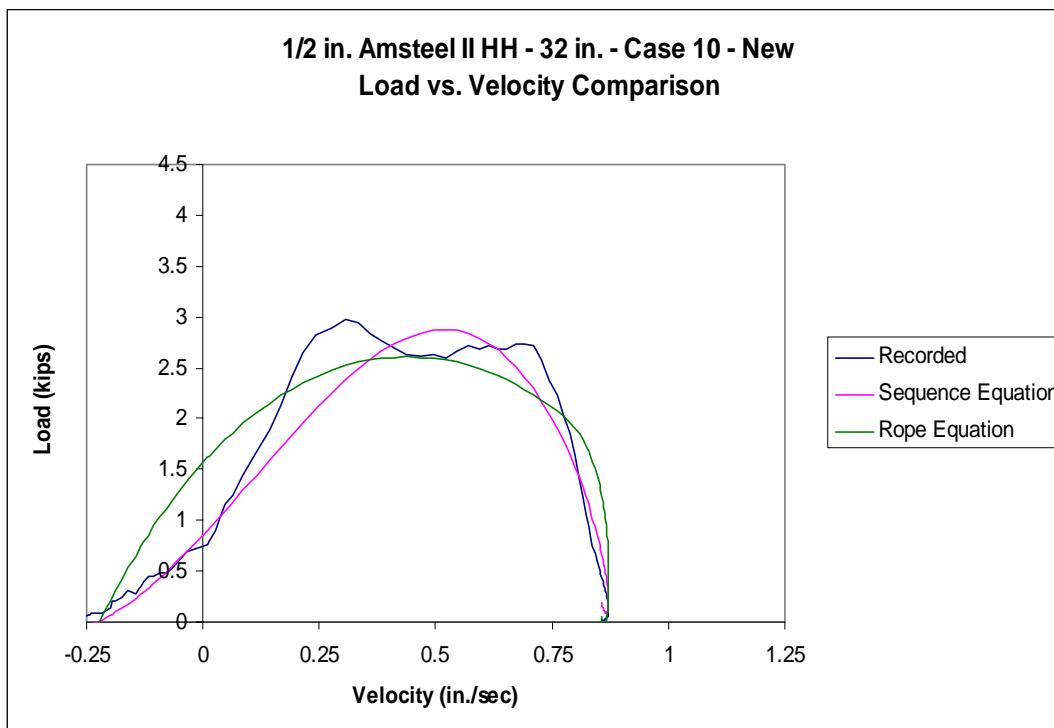


Figure C.4.76: Load vs. Velocity – Amsteel II HH – New – Cycle 10

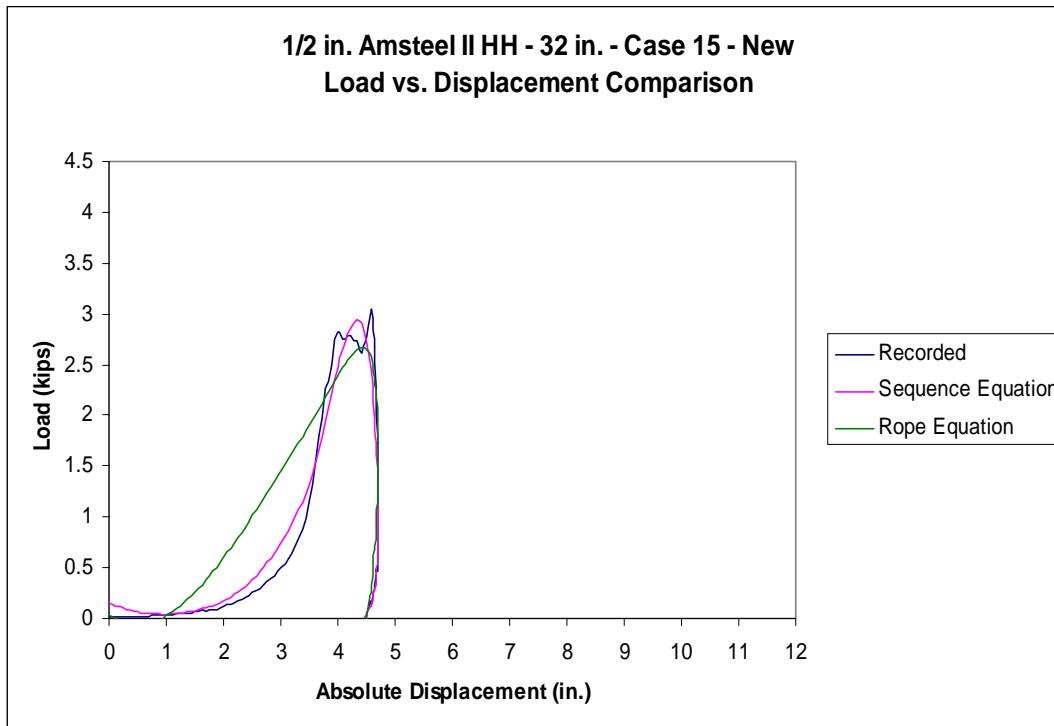


Figure C.4.77: Load vs. Displacement – Amsteel II HH – New – Cycle 15

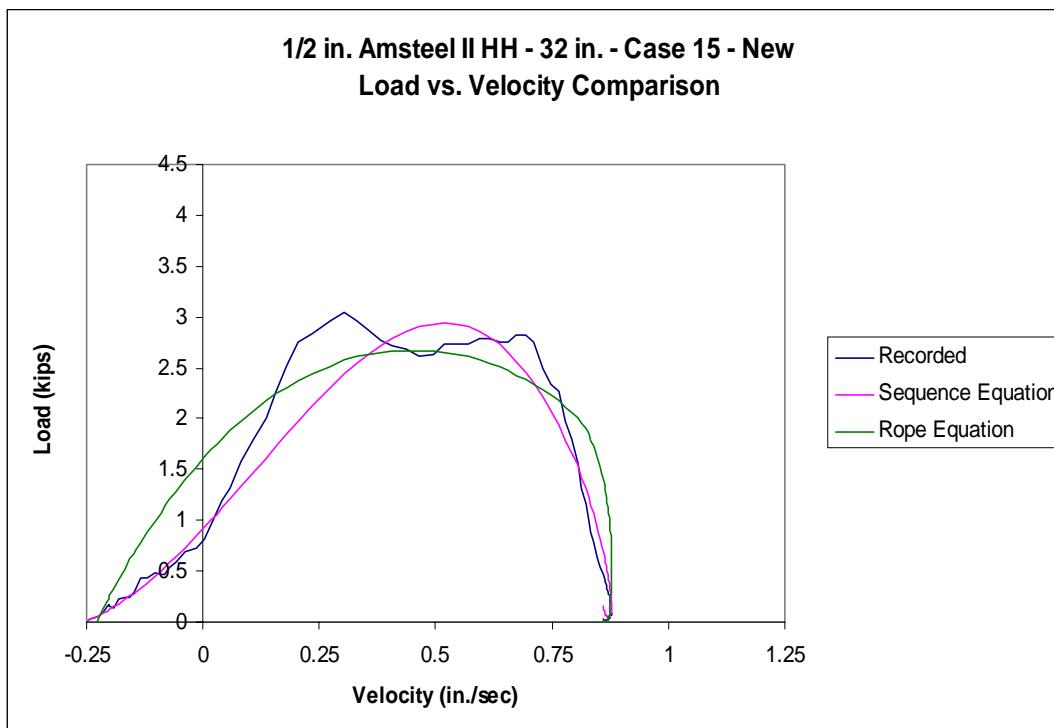


Figure C.4.78: Load vs. Velocity – Amsteel II HH – New – Cycle 15

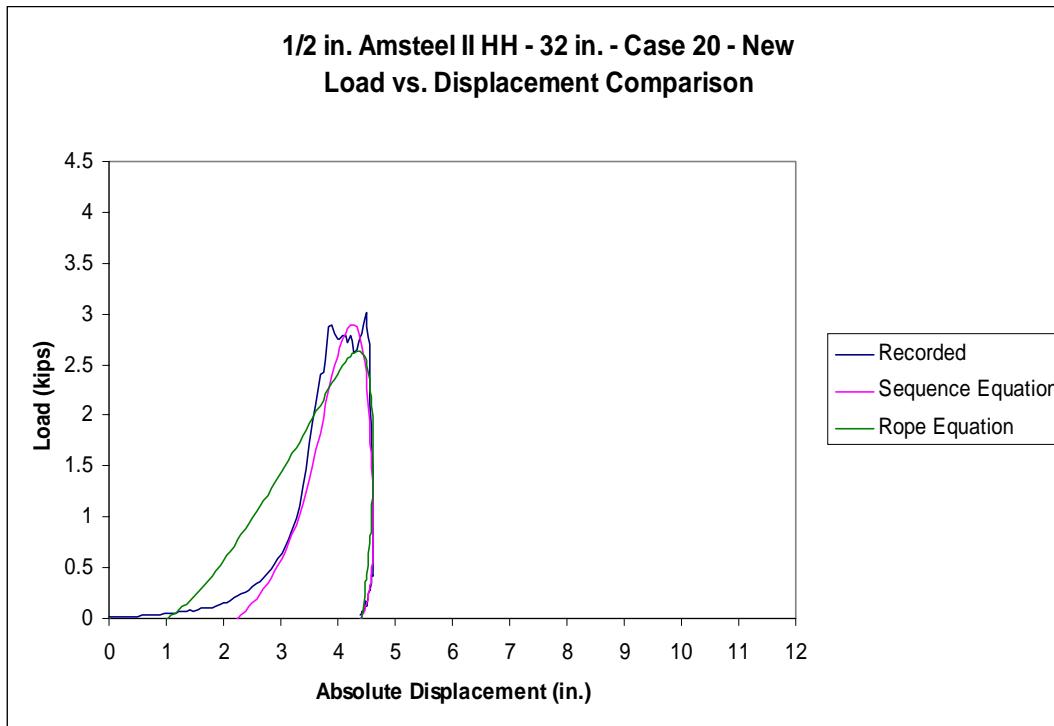


Figure C.4.79: Load vs. Displacement – Amsteel II HH – New – Cycle 20

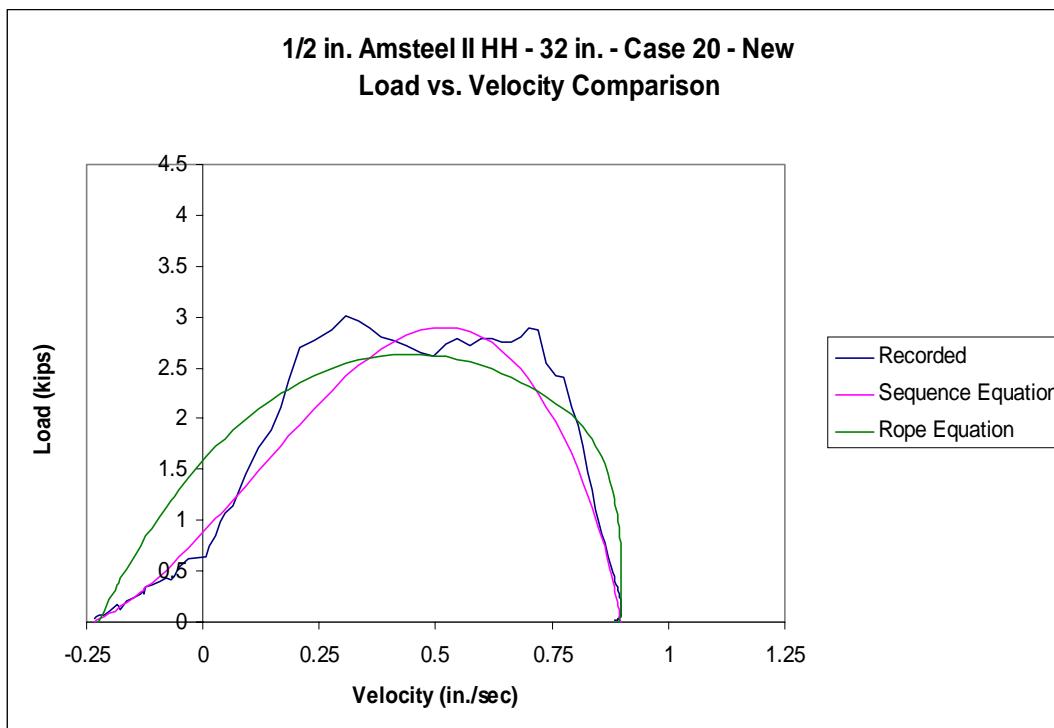


Figure C.4.80: Load vs. Velocity – Amsteel II HH – New – Cycle 20

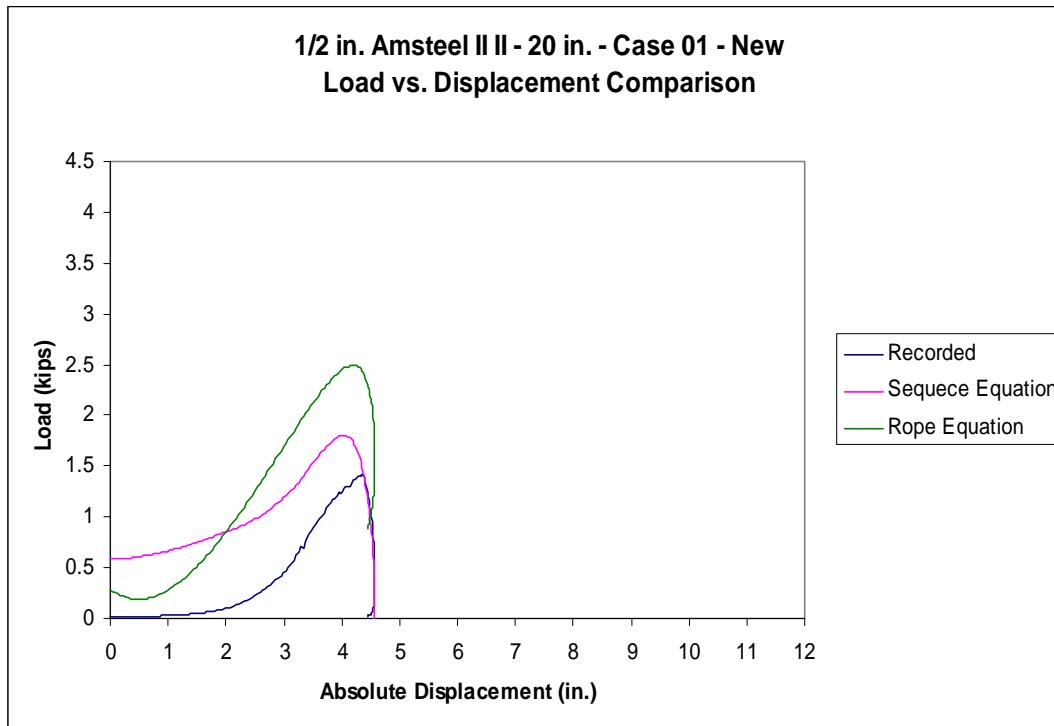


Figure C.4.81: Load vs. Displacement – Amsteel II II – New – Cycle 1

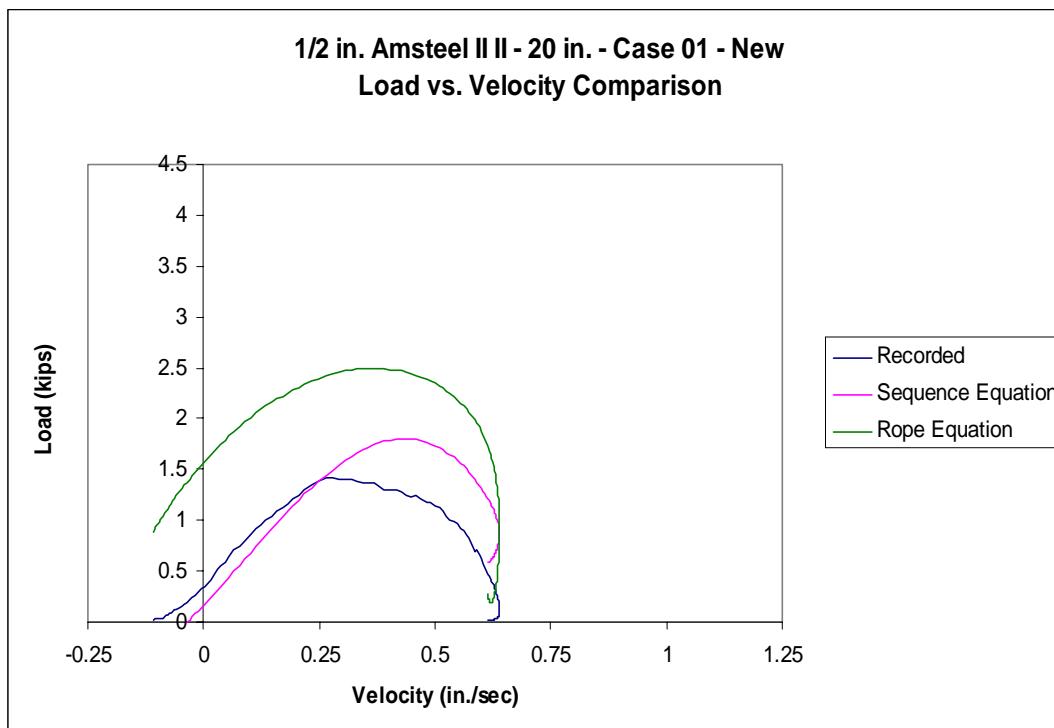


Figure C.4.82: Load vs. Velocity – Amsteel II II – New – Cycle 1

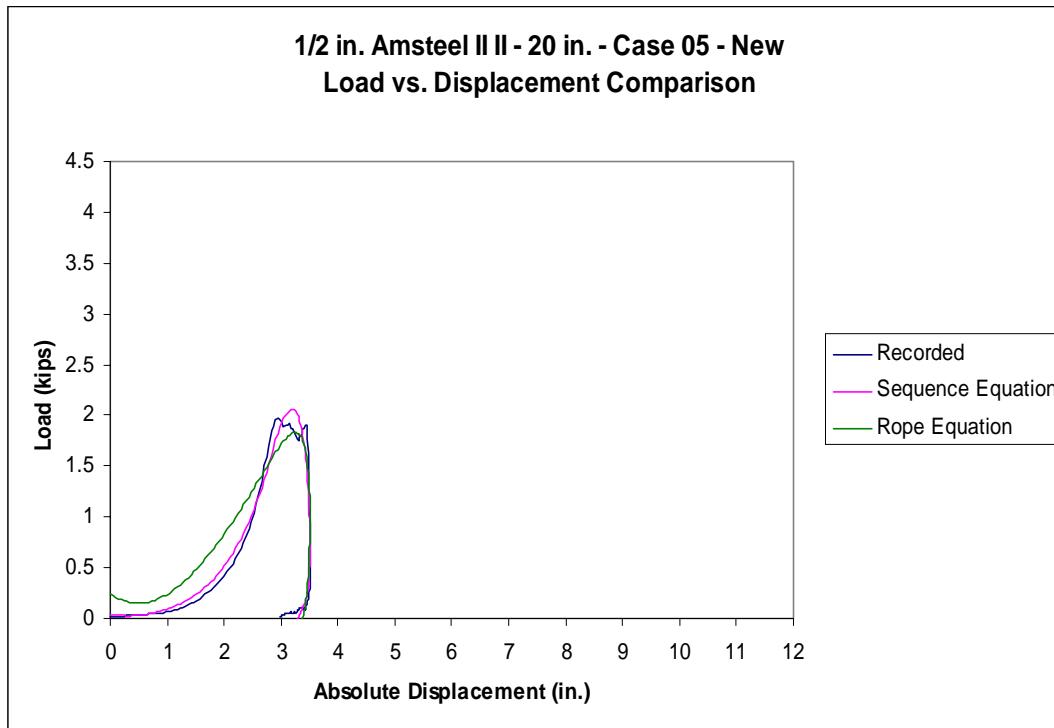


Figure C.4.83: Load vs. Displacement – Amsteel II II – New – Cycle 5

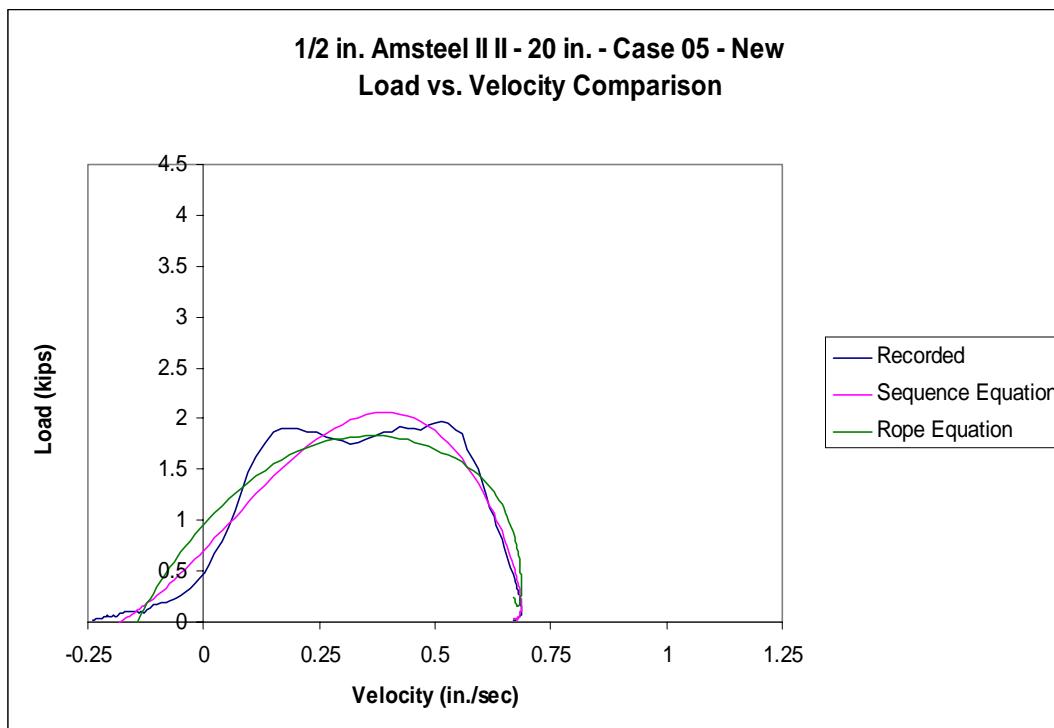


Figure C.4.84: Load vs. Velocity – Amsteel II II – New – Cycle 5

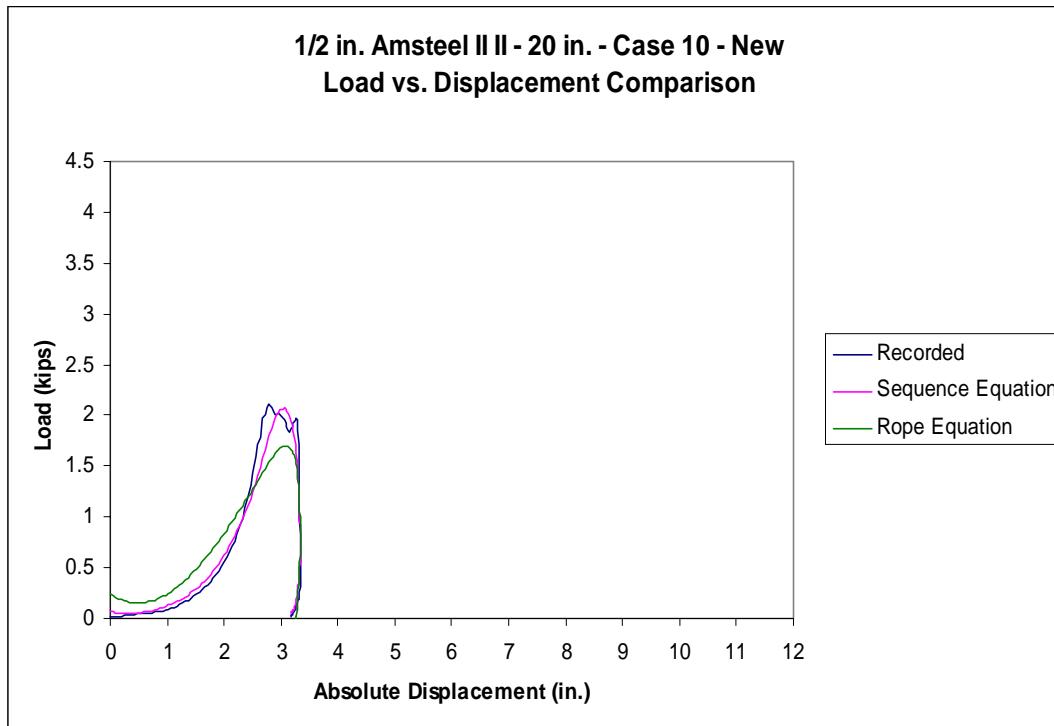


Figure C.4.85: Load vs. Displacement – Amsteel II II – New – Cycle 10

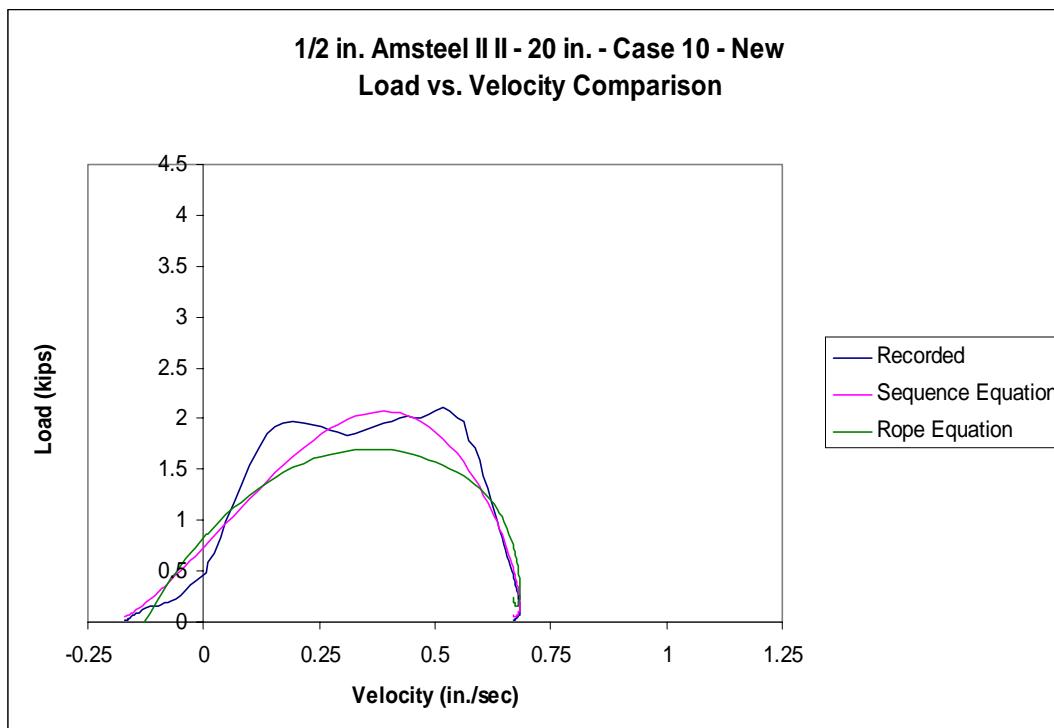


Figure C.4.86: Load vs. Velocity – Amsteel II II – New – Cycle 10

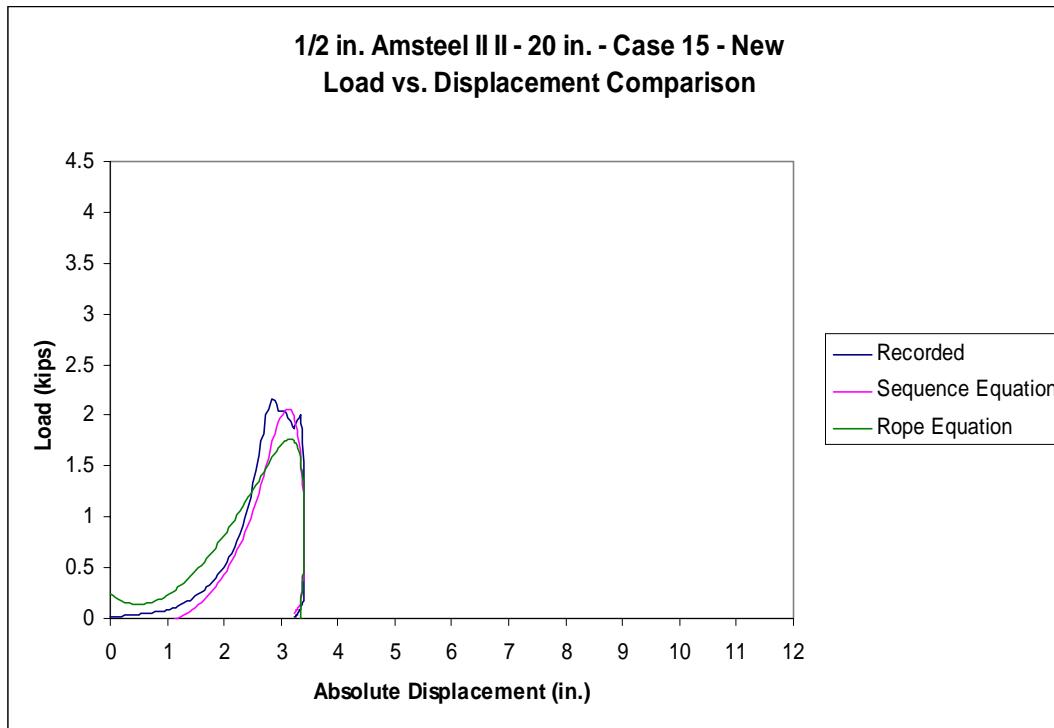


Figure C.4.87: Load vs. Displacement – Amsteel II II – New – Cycle 15

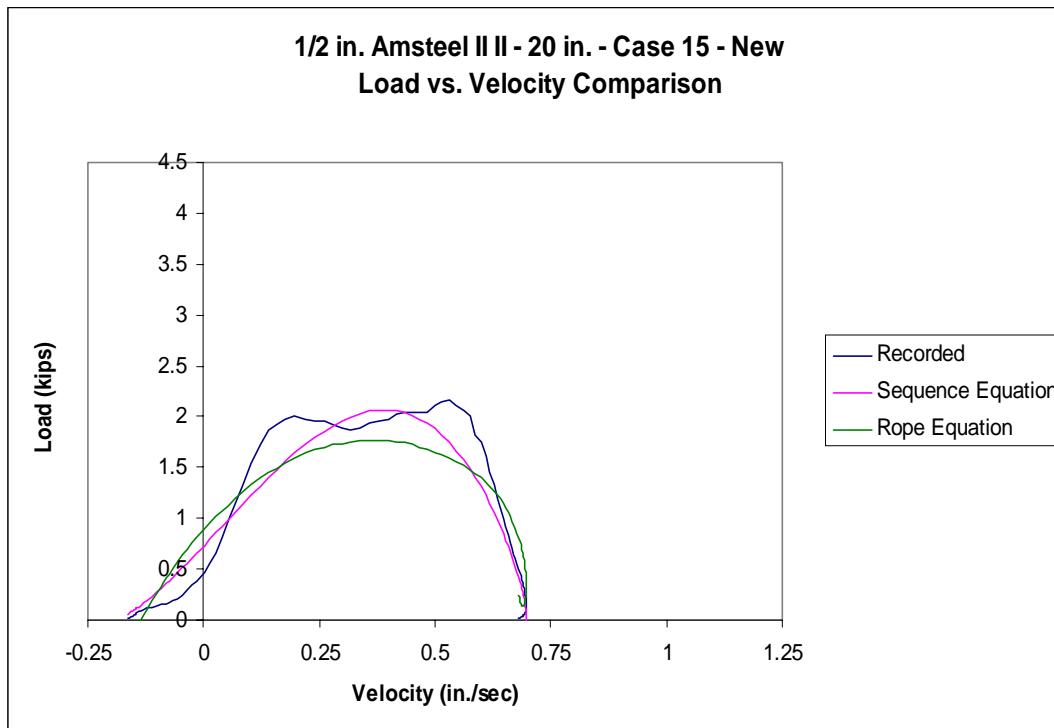


Figure C.4.88: Load vs. Velocity – Amsteel II II – New – Cycle 15

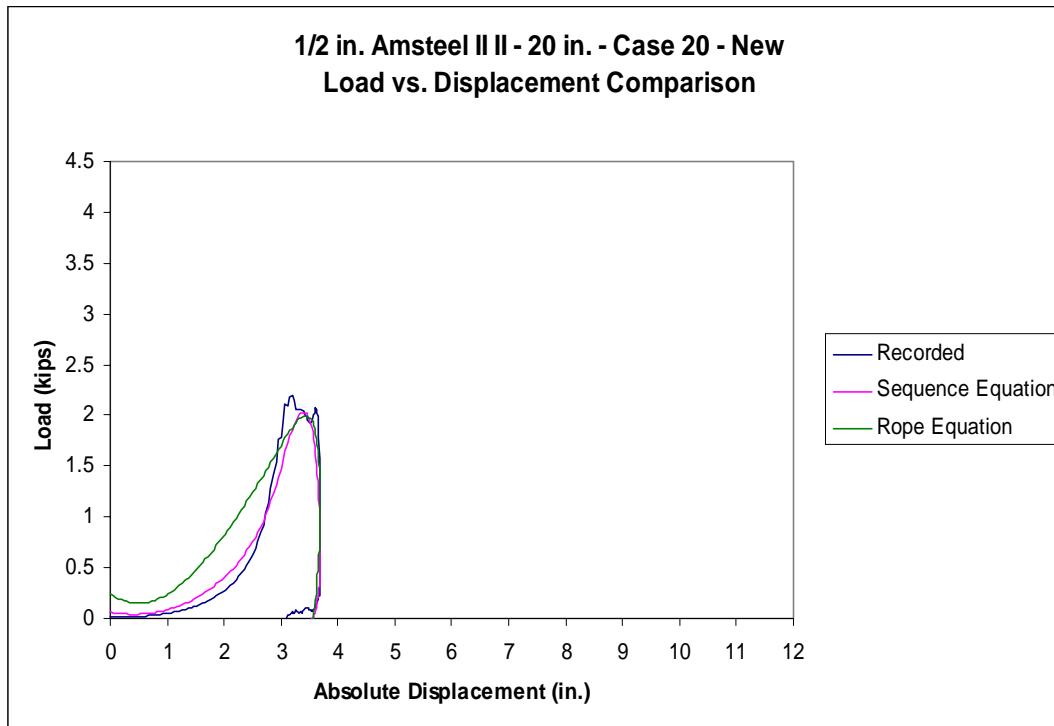


Figure C.4.89: Load vs. Displacement – Amsteel II II – New – Cycle 20

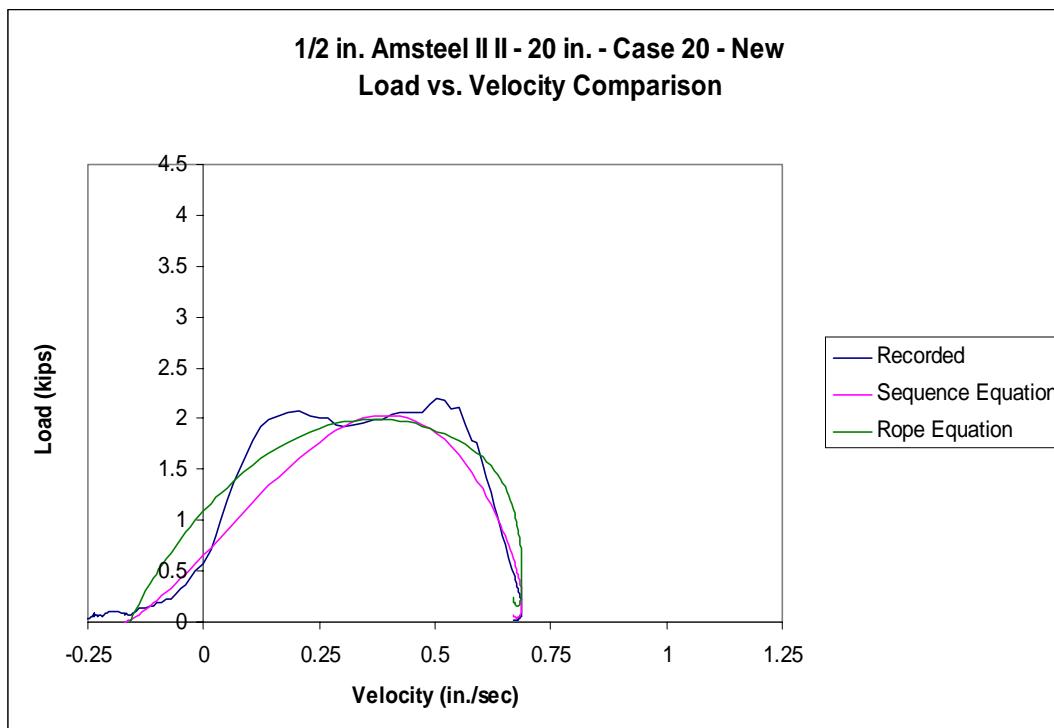


Figure C.4.90: Load vs. Velocity – Amsteel II II – New – Cycle 20

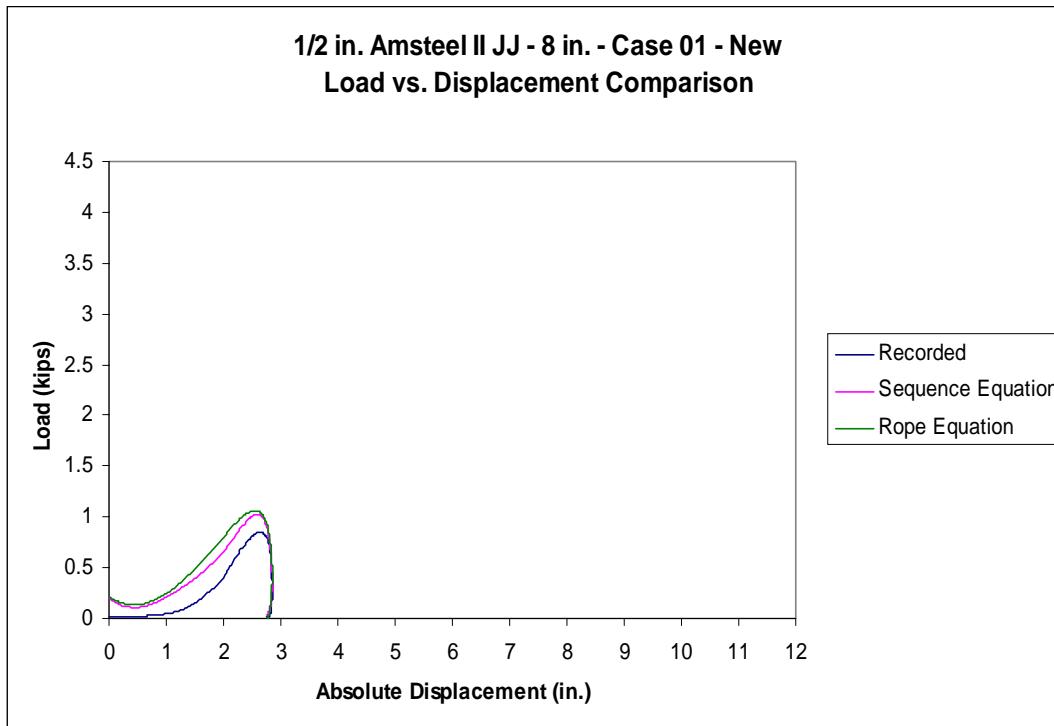


Figure C.4.91: Load vs. Displacement – Amsteel II JJ – New – Cycle 1

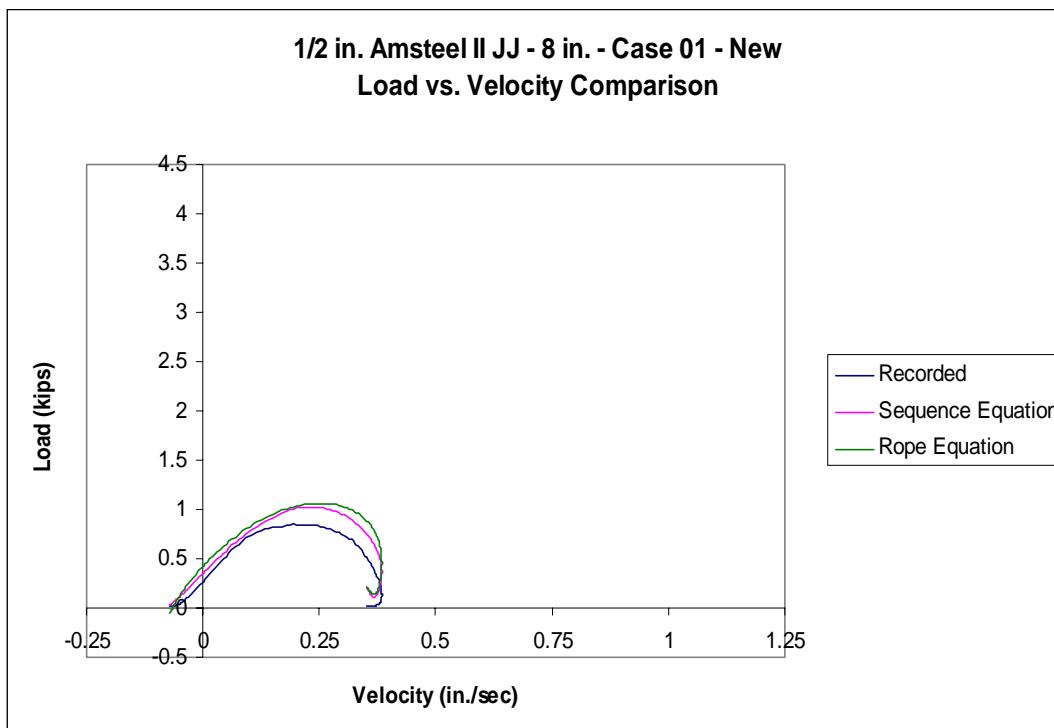


Figure C.4.92: Load vs. Velocity – Amsteel II JJ – New – Cycle 1

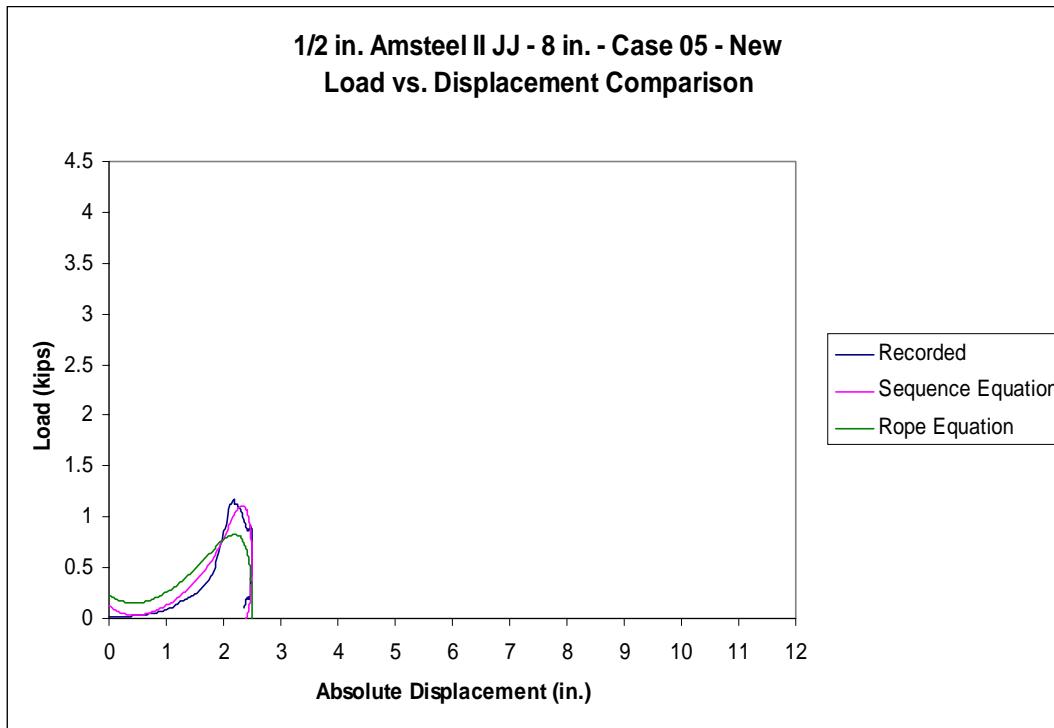


Figure C.4.93: Load vs. Displacement – Amsteel II JJ – New – Cycle 5

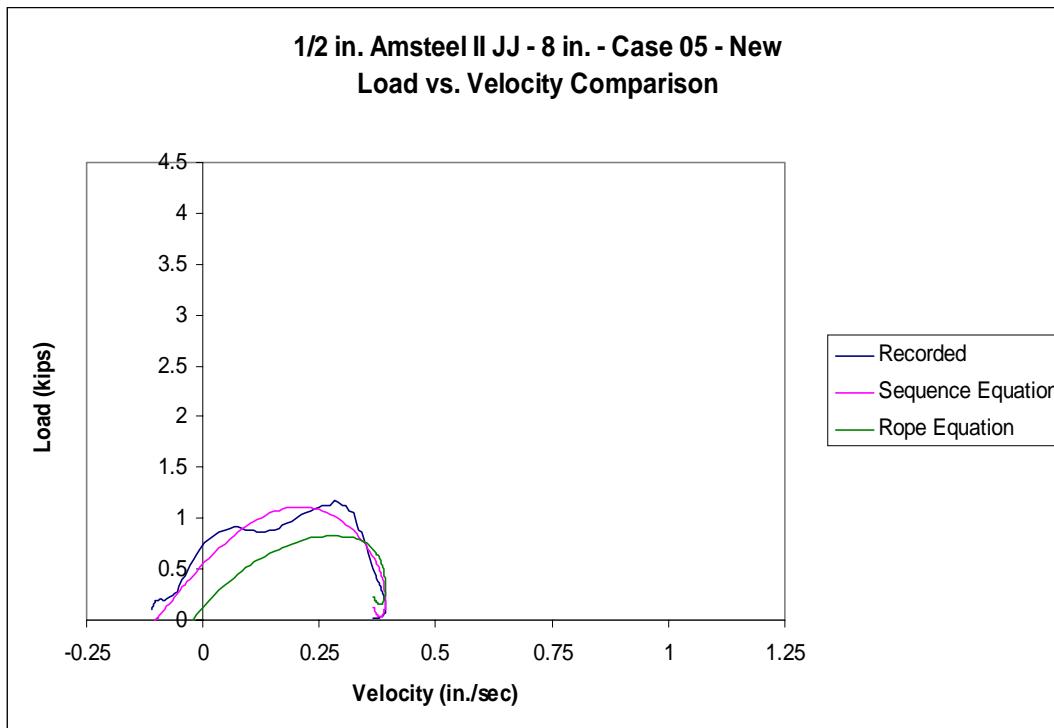


Figure C.4.94: Load vs. Velocity – Amsteel II JJ – New – Cycle 5

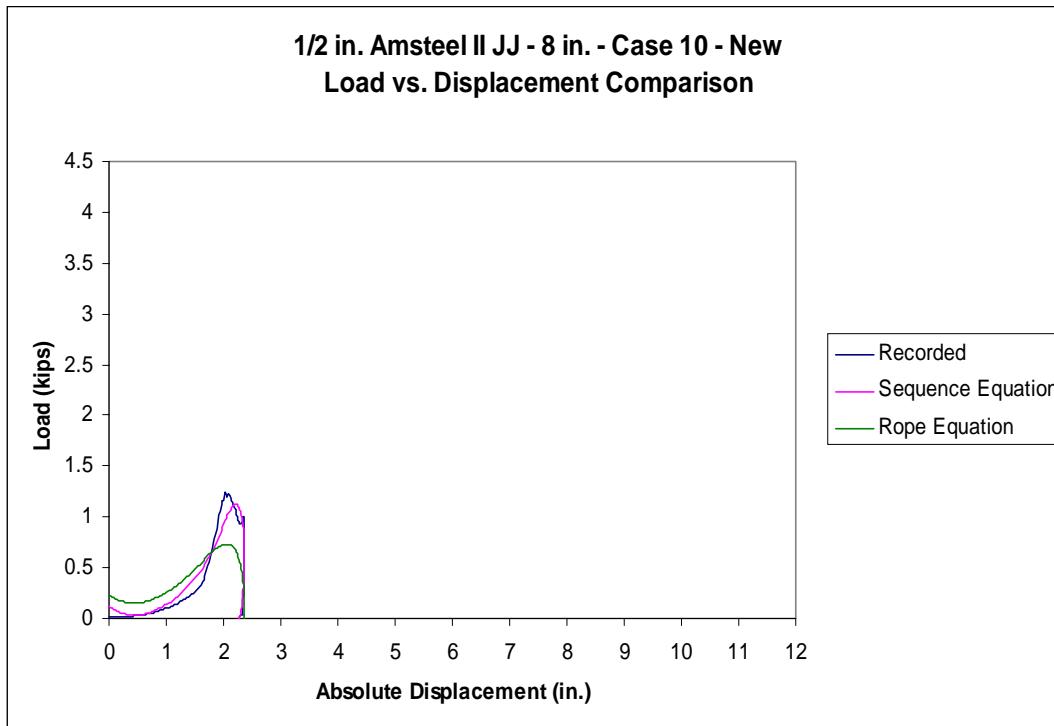


Figure C.4.95: Load vs. Displacement – Amsteel II JJ – New – Cycle 10

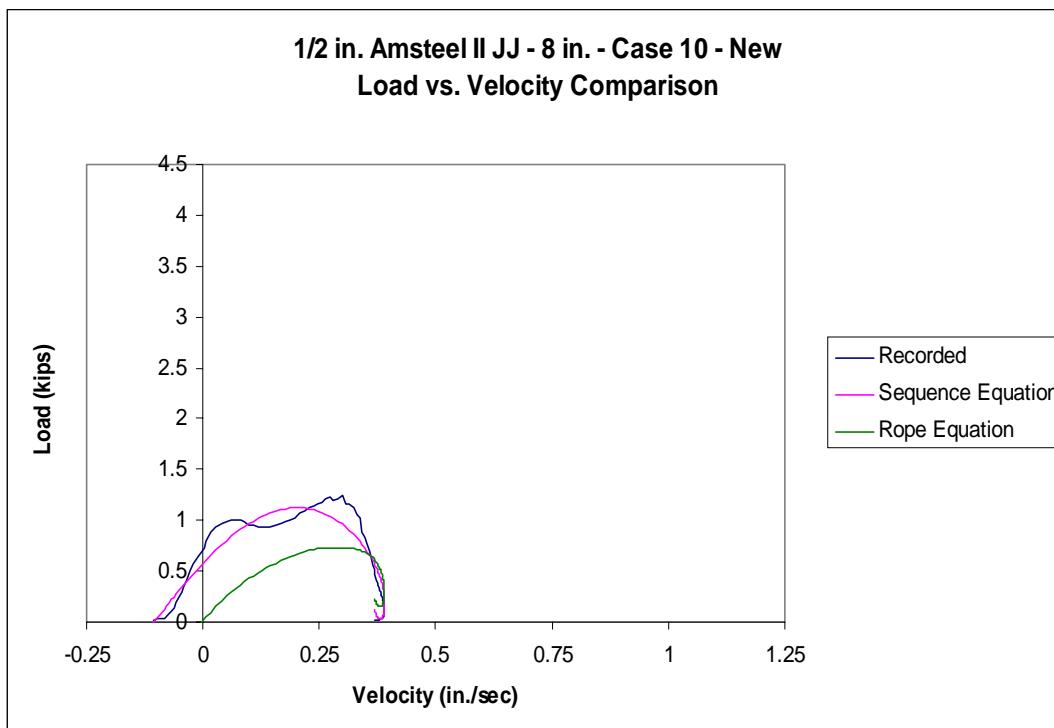


Figure C.4.96: Load vs. Velocity – Amsteel II JJ – New – Cycle 10

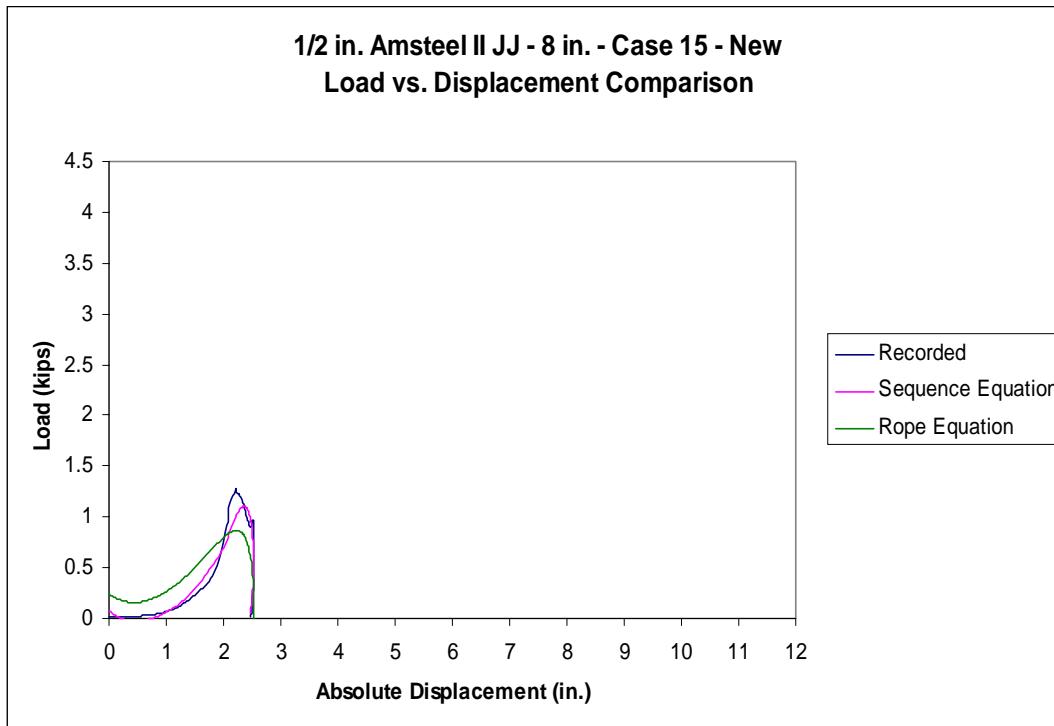


Figure C.4.97: Load vs. Displacement – Amsteel II JJ – New – Cycle 15

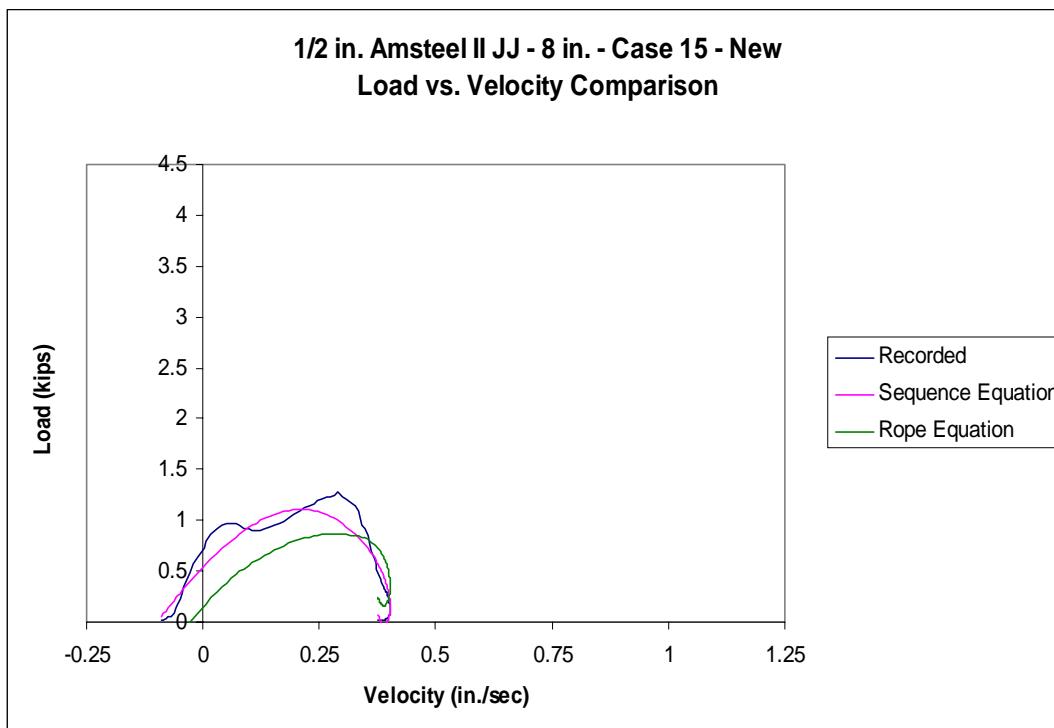


Figure C.4.98: Load vs. Velocity – Amsteel II JJ – New – Cycle 15

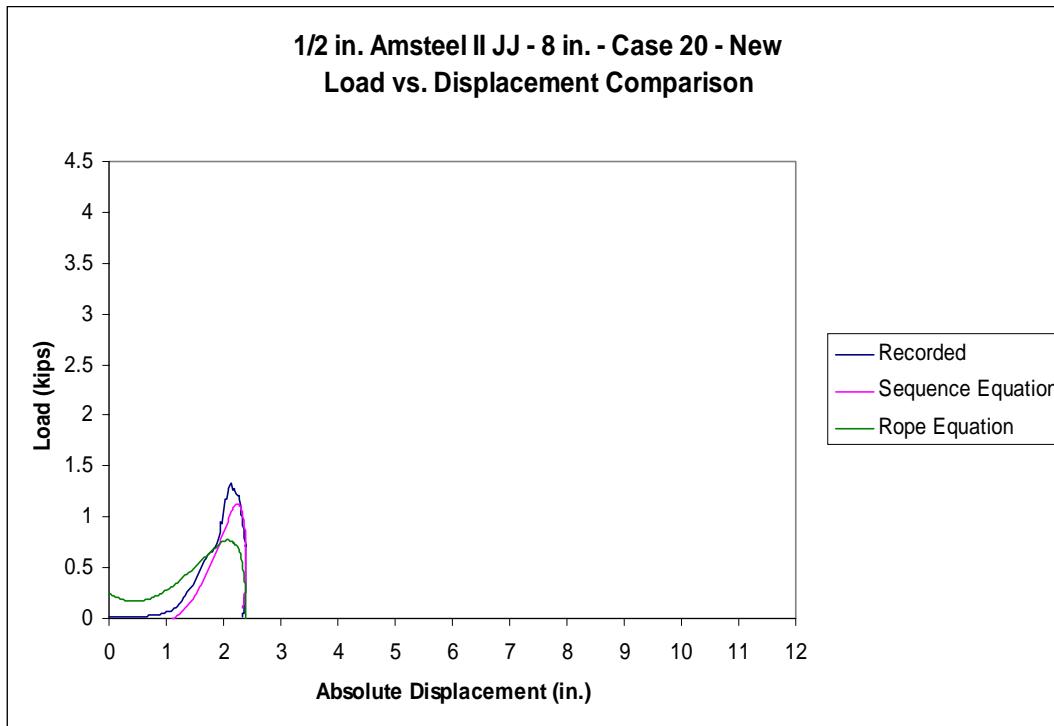


Figure C.4.99: Load vs. Displacement – Amsteel II JJ – New – Cycle 20

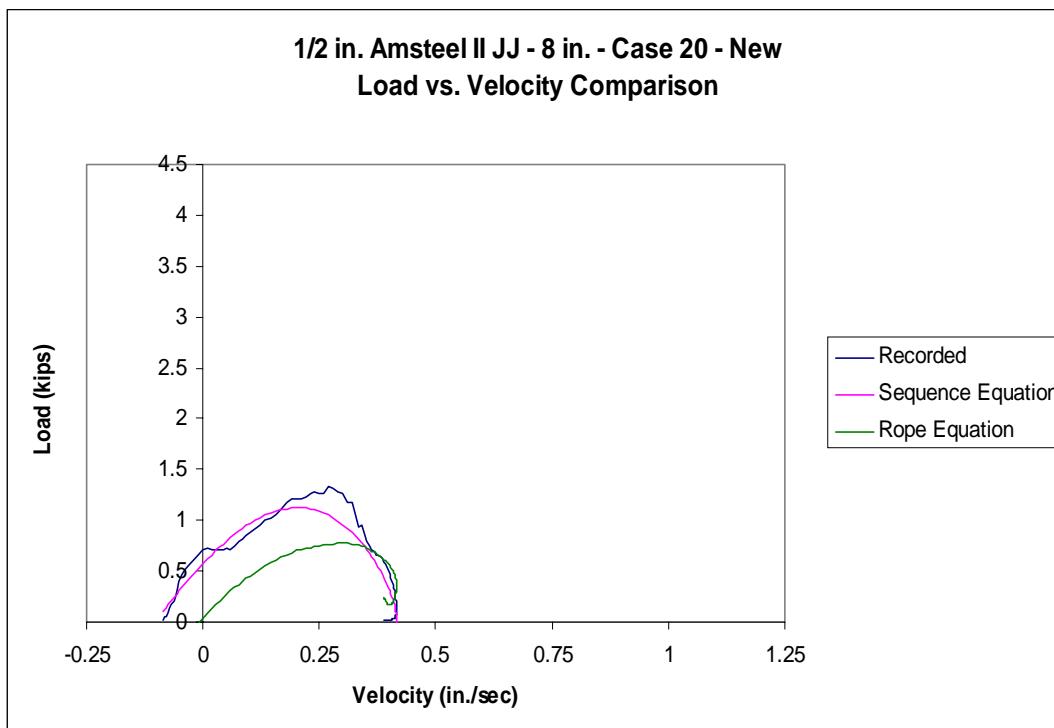


Figure C.4.100: Load vs. Velocity – Amsteel II JJ – New – Cycle 20