Refusal Criteria for Diesel and Hydraulic Impact Hammers

Do not exceed 10 blows per inch or 120 blows per foot. In cases of setting of the pile it is permitted to increase the blow count to 250 blows per foot, but only for one foot of driving penetration. Pile inspectors should consult the APE factory for permission to exceed these limits. Failure to do so will void the warranty. This standard specification is accepted by the DFI (Deep Foundations Institute) and the PDCA (Pile Driving Contractors Association) and by all manufacturers of pile driving equipment.

When utilizing a hydraulic trip do not exceed 10 blows per inch or 120 blows per foot.

Ultimate Refusal:
Do not go beyond 20 blows per inch or no more than 250 blows per foot for no more than one foot in the case of setting the pile.

In cases of excessive pile rebound consult factory. Hydraulic trip may engage while hammer is in rebound situation. Failure to consult factory about rebound conditions will void warranty.

Rebound, or deflection of pile, can be determined if you reach hammer refusal criteria and the hammer does not have a full consistent stroke on setting #4.

Bottom Line:
If the pile does not move one inch in 20 blows when setting the pile, shut the hammer down.