

HR-269 Data Acquisition and Computer Plotting of Delamtect Data

Abstract

The SIE Delamtect is a small hand-propelled mobile cart equipped with a tapping system, acoustic sensors and a dual channel strip chart recorder. It detects and indicates the location and extent of delaminated areas within a concrete bridge deck as it traverses the deck by recording analog signals on a strip chart recorder.

The purpose of this research was to develop hardware and software to automate the data collection of the Delamtect system. In addition to measuring and recording the data in the field, the system provides for transferring the recorded data to a personal computer for processing and plotting. This permits rapid turnaround from data collection to a finished plot of the results in a fraction of the time previously required for manual analysis of the analog data captured on a strip chart recorder.