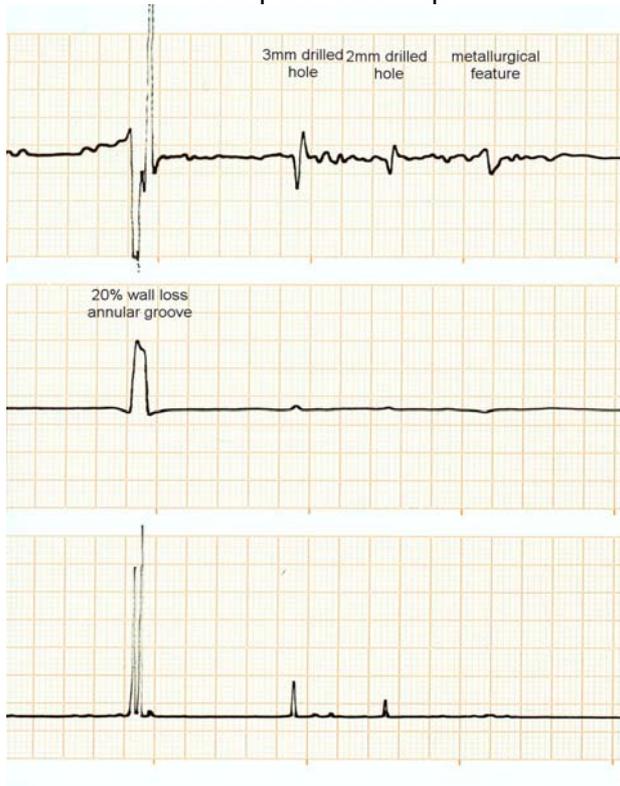


DINSEARCH 1-00

The Display of Data

Because of the nature of the material, the common corrosion mechanisms and the usual mechanical defects in carbon steel tubes, a particular format has been developed to display data from the tubes.

Computer and strip chart recorder give identical display formats.

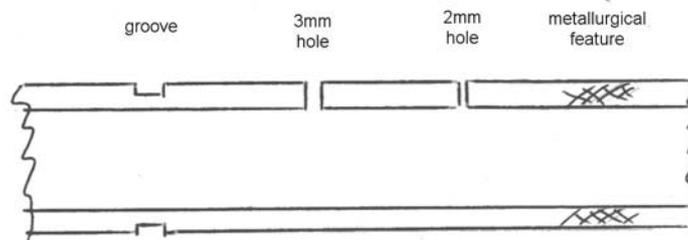


Top trace; the difference between two sensors close together on the probe; a differential trace. If pits and holes are separate and isolated, they are resolved as individuals.

Middle trace; the signal from one sensor; an absolute trace. The signal is shown is typical of wear at support plates.

Bottom trace; a filtered version of the top trace; gives a clearer indication of pits and holes; the filter has extracted the special characteristics of such defects and minimised spurious indications.

The above traces are from a simple reference tube with machined defects



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DINSEARCH 1-00 Display of Data

Isolated pits are rare in carbon steel tube, a badly corroded tube shows:-



Top trace; a mass of signals from the many pits, non are individually resolved but all contribute to the general signal level.

Middle trace; beginning to show the general wall thinning caused by the merging of some of the pits.

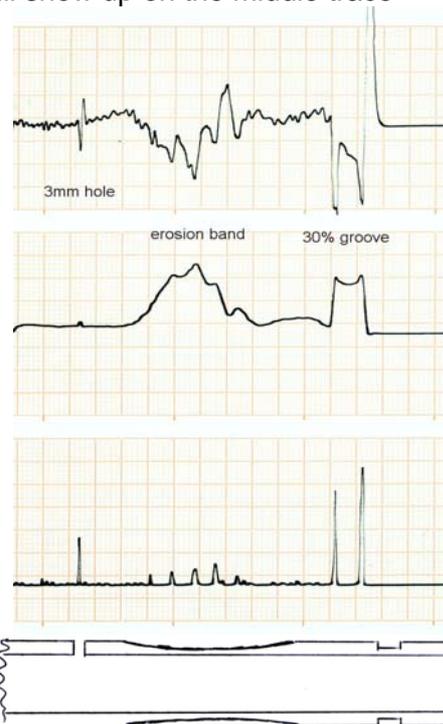
Bottom trace; a mass of spikes from the multitude of pits. The more pits there are, the more the number and greater the amplitude of the spikes.

If there is a long erosion zone in the tube, it will show up on the middle trace

Top trace:- shows hole, irregularities in the erosion band, start and end of groove

Middle trace:- shows erosion band and groove

Bottom trace:- shows the same features as the top trace



For further information on the response from particular types of defect or of the application of the technique to your particular problem, contact:-

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