Klinger traverse accuracy check (CW13/17)

This procedure is for checking the 'Klinger' probe traverser movement accuracy. Position probe support such that there is adequate length of travel in each of x, y and z axes (say, 10 inches each in the positive direction). Mark the positions of the edges of each unit on the rails using a suitable marker. Set the controller unit displays to zero. Now use a suitable computer program (Zaman uses 'klinger_test' with subroutine 'kling') to move the mechanism through about thirty (variable) steps, in each of x, y and z directions. Keep track of total distances traveled. Now move back by the same distances. Check the location of the probe support against the markers on the rails. Controller displays should be back to zeroes.

NOTE: Since the mechanism moves by integer steps (minimum = one thousandth of an inch), there can be truncation error. That is, n*ifix(step) may not be equal to ifix(n*step). Thus, mechanism may not have returned to exactly zero. This is not Klinger problem and should be taken care of in the software. User should also watch for numerical truncation error in the conversion of a floating-point variable.

Checking this once a year should be sufficient. No other calibrated equipment is necessary for this procedure.

Procedure approved by……………………..

Procedure reviewed by……………………..

Date…………………………………………………..

May 22, 2001

Klinger traverse accuracy check (CW13/17)
(Checklist)

Klinger Unit ………………….

Comment ……………………...

Performed by…………………

Date …………………………..