

## Appendix 2: Characteristics of the simulator.

The stimulus comprised a random time history, with a flat acceleration spectrum band-limited between 2 Hz and 20 Hz. Only the vertical motion (z axis) was reproduced.

The rig was tested with rigid masses in the seat representing the range of expected weights of the babies taking part in the study. The  $W_b$  weighted vibration dose value\* for the 30 minutes exposure decreased from  $2.13 \text{ ms}^{-1.75}$  with a 4.5 kg mass to  $1.57 \text{ ms}^{-1.75}$  with a 1.4 kg mass, thus the exposure was slightly different for each baby due to their different weights.

Safety features included emergency stops, current, displacement, and acceleration limits.

(\*BRITISH STANDARDS INSTITUTION, 1987, BS 6841, Measurement and evaluation of human exposure to whole-body mechanical vibration and repeated shock)