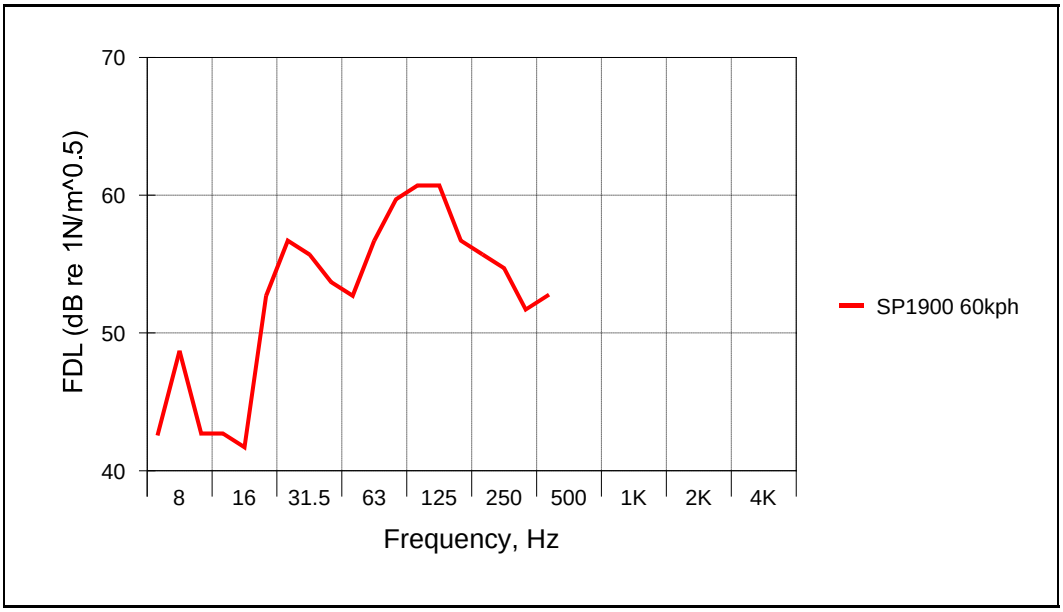
Appendix 5.2 Force Density Level of Train Type SP1900



Reference: SCL Hung Hom to Admiralty Section EIA Study Appendix 10.2 Figure: FDL for the SP1900 EMU

Remarks: FDL unit is converted from lb/ft$^{0.5}$ to metric by adding 18.1dB. Train set is adjusted from 7 cars to 8 cars by adding 0.6dB.

[Conversion Step of FDL from unit lb/ft0.5 to N/m0.5:

- *Conversion of lbf to N = x 0.4536 x 9.81*
- *Conversion of ft to m = x 0.3048*
- *Conversion of lbf/ft^0.5 to N/m^0.5 = +20 x log[(0.4536 x 9.81)/(0.3048^0.5)] = 18.1dB*

Conversion of 7 cars to 8 cars: 10 x log(8/7) = 0.6dB]