

Riverside Quay Extension : Discharge of Planning Condition, Noise.

"Information for Impact Hammer"

Noise Data	Sound Power Level (dbA)							
	Lwa (at source)	Lpa (4m R)	Lpa (15m R)	Lpa (30m)	Lpa (60m)	Lpa (120m)	Lpa (240m R)	Lpa (480m R)
Hammers:								
CX Range Standard	126	106	94	88	82	76	70	64
CX Range Shrouded	113	93	81	75	69	63	57	51
CX Range	122	102	90	84	78	72	66	60
Power Packs:								
Hydro Pack 125	105	95	73	67	61	55	49	43
Hydro Pack 250	104	94	72	66	60	54	48	42

Vibration Data

$$v = \frac{C \sqrt{W}}{r}$$

If C = 0.75
 If C = 1.0

r	v (mm/s)
10	24.4
25	9.76
50	4.88
100	2.44
200	1.22
300	0.81
400	0.61

W = (mass x gravitational acceleration x drop height)
 W = (9000kg x 9.8 m/s² x 1.2m)
 W = 105840 Joules (or N.m)

r	v (mm/s)
10	32.5
25	13.01
50	6.51
100	3.25
200	1.63
300	1.08
400	0.81

Noise Data	Sound Power Level Lwa (at source)	Sound Pressure Level Lpa (4m R)	Sound Pressure Level Lpa (15m R)
Hammers:			
CX Range Standard	126 dB(A)	106 dB(A)	94 dB(A)
CX Range Shrouded	113 dB(A)	93 dB(A)	81 dB(A)
CX Range	122 dB(A)	102 dB(A)	90 dB(A)
Power Packs::			
Hydro Pack 125	105 dB(A)	95 dB(A)	73 dB(A)
Hydro Pack 250	104 dB(A)	94 dB(A)	72 dB(A)

NB. Noise emissions will vary depending on type of pile being installed i.e. panel of sheet piles or single bearing pile, method of installation, site location and ambient noise.

Cylical operations will result in an overall reduction of noise (leq).

To calculate the noise level at further distances, reduce the noise level by 6dB(A) each time the distance is doubled.



BSP CX85



Watson & Hillhouse Ltd.,

Whitehouse Road, Ipswich,
Suffolk IP1 5NT England

Tel: +44 (0)1473 748652

Fax: +44 (0)1473 240090

Email: info@w-h.co.uk

Web: www.w-h.co.uk