

NH-PILEHAMMER

N H 油 圧 ハ ン マ



日本車輛
NH-70



 日本車輛

NHシリーズ油圧パイルハンマ

NH-20・NH-40・NH-70・NH-100

動的許容支持力の算定

建設省告示式

$$Ra = F / (5S + 0.1) \text{ を適用}$$

$$F = 2WH$$

Ra: 動的許容支持力 TON
 S: 貫入量 m
 W: ラム重量 TON
 H: 自由落下相当高さ m

道路橋示方書式

$$Ra = \frac{1}{3} \left(\frac{A \cdot E \cdot K}{e_0 \cdot Q_1} + \frac{\bar{N} \cdot U \cdot Q_e}{e_f} \right)$$

Ra: 杭の許容支持力 TON
 A: 杭の純断面積 m^2
 E: 杭の弾性係数 TON/ m^2
 K: リバウンド率 m
 \bar{N} : 杭頭部の平均N値
 U: 杭の高さ m
 Q_1 : 杭の長さ m
 Q_e : 杭の貫入れ長さ m
 e₀: 修正係数
 $e_0 = \left(1.5 \frac{W_H}{W_P} \right)^{1/5}$
 W_H: ラム重量 TON
 W_P: 杭重量 TON
 e_f: 修正係数=2.5

動的許容支持力表 (建設省告示式による)

NH20 動的許容支持力(Ra)

貫入量 (m)	1	2	3	4	5	6	7	8
1	7.6	15.2	22.8	30.4	38.0	45.7	53.3	61.0
2	7.9	14.5	21.8	29.1	36.4	43.8	51.2	58.7
3	7.9	13.9	20.9	27.8	34.8	41.7	48.7	55.7
4	8.7	13.3	20.0	26.7	33.3	40.0	46.7	53.3
5	8.4	12.8	19.2	25.6	32.0	38.4	44.8	51.2
6	8.2	12.3	18.5	24.6	30.8	36.9	43.1	49.2
7	8.9	11.9	17.8	23.7	29.6	35.5	41.5	47.4
8	8.7	11.4	17.1	22.8	28.8	34.9	40.9	46.7
9	8.9	11.0	16.6	22.1	27.8	33.1	38.5	44.1
10	8.9	10.7	16.0	21.3	27.0	32.3	37.5	42.7
11	8.2	10.3	15.5	20.6	26.3	31.6	36.1	40.7
12	8.2	10.0	15.0	20.0	25.6	30.9	35.4	40.0
13	4.8	9.7	14.5	19.4	24.2	29.1	33.9	38.8
14	4.7	9.4	14.1	18.8	23.5	28.2	32.8	37.6
15	4.8	9.1	13.7	18.2	22.9	27.4	32.0	36.6

NH-40動的許容支持力(Ra)

貫入量 (m)	1	2	3	4	5	6	7	8
1	14.4	28.8	43.2	57.6	72.0	86.4	100.8	115.2
2	13.9	27.8	41.7	55.6	69.5	83.4	97.3	111.2
3	13.2	26.4	39.6	52.8	66.0	79.2	92.4	105.7
4	12.5	25.0	38.0	50.0	62.0	74.0	86.0	98.0
5	12.1	24.2	36.4	48.5	60.6	72.7	84.8	97.0
6	11.8	23.6	35.4	46.7	58.8	70.9	83.0	95.1
7	11.2	22.5	33.7	45.0	56.2	67.5	78.8	90.1
8	10.8	21.7	32.5	43.4	54.2	65.1	76.0	86.9
9	10.4	20.9	31.4	41.9	52.4	62.9	73.3	83.8
10	10.1	20.2	30.4	40.5	50.6	60.8	71.0	81.3
11	9.8	19.6	29.4	39.2	49.0	58.8	68.6	78.4
12	9.5	19.0	28.5	38.2	47.9	57.0	66.9	76.7
13	9.2	18.4	27.6	36.9	46.0	55.2	64.4	73.5
14	9.0	17.8	26.8	35.7	44.7	53.6	62.5	71.5
15	9.0	17.3	26.0	34.7	43.4	52.1	60.9	69.6

NH-70 動的許容支持力(Ra)

貫入量 (m)	1	2	3	4	5	6	7	8
1	21.3	42.6	63.9	85.2	106.5	127.8	149.1	170.4
2	20.3	40.7	61.0	81.4	101.8	122.1	142.5	162.9
3	19.4	38.9	58.4	77.8	97.3	116.8	136.3	155.8
4	18.6	37.2	56.0	74.8	93.2	112.0	131.2	150.3
5	17.9	35.8	53.7	71.8	89.5	107.4	125.4	143.3
6	17.2	34.4	51.6	68.9	85.1	103.3	120.6	137.8
7	16.5	33.1	49.7	66.3	80.9	98.3	115.3	132.3
8	16.0	32.0	48.0	64.0	80.0	96.0	112.0	128.0
9	15.4	30.8	46.3	61.7	77.2	92.6	108.1	123.5
10	14.9	29.8	44.8	59.7	74.8	89.6	104.5	119.4
11	14.4	28.9	43.3	57.8	72.6	86.7	101.1	115.8
12	14.0	28.0	42.0	56.0	70.0	84.0	98.0	112.0
13	13.5	27.1	40.7	54.3	67.8	81.4	95.2	108.6
14	13.1	26.3	39.5	52.7	65.8	79.0	92.2	105.4
15	12.8	25.6	38.4	51.2	64.0	76.8	89.6	102.4

NH-100 動的許容支持力(Ra)

貫入量 (m)	1	2	3	4	5	6	7	8
1	34.3	68.6	102.9	137.1	171.4	205.7	240.0	274.3
2	32.7	65.5	98.2	130.9	164.6	198.4	232.1	265.8
3	31.3	62.6	93.8	125.2	158.5	191.9	225.4	258.9
4	30.0	60.0	90.0	120.0	153.0	186.0	219.0	252.0
5	28.8	57.6	86.4	115.2	144.0	177.6	211.2	244.8
6	27.7	55.4	83.1	110.8	138.5	169.2	199.8	230.5
7	26.7	53.3	80.0	106.7	133.5	162.0	192.7	223.3
8	25.7	51.4	77.1	102.9	129.0	156.3	186.0	216.7
9	24.8	49.7	74.5	99.3	124.1	149.8	179.8	209.6
10	24.0	48.0	72.0	96.0	120.0	144.0	174.0	202.0
11	23.2	46.5	69.7	92.8	115.1	139.4	168.6	195.8
12	22.5	45.0	67.5	90.0	111.5	135.0	162.0	189.0
13	21.9	43.8	65.5	87.3	108.1	130.9	157.5	184.5
14	21.2	42.4	63.5	84.7	105.9	127.1	154.2	180.4
15	20.6	41.1	61.7	82.3	102.9	123.4	149.0	176.4