

SH

HEAVY LOAD SPRINGS

JIS B 5012

Outside Dia.	Inside Dia.	Free Length	Spring Code	Spring Constant	0.3 million		0.5 million		1 million	
					Deflection	Load	Deflection	Load	Deflection	Load
mm	mm	mm		Kgf / mm	mm	Kgf (N)	mm	Kgf (N)	mm	Kgf (N)
10	5	20	SH 10 - 020	6.25	4.8	30 (294)	4.3	27 (265)	3.8	24 (235)
		25	SH 10 - 025	5.00	6.0		5.4		4.8	
		30	SH 10 - 030	4.16	7.2		6.5		5.8	
		35	SH 10 - 035	3.57	8.4		7.5		6.7	
		40	SH 10 - 040	3.15	9.6		8.6		7.7	
		45	SH 10 - 045	2.77	10.8		9.7		8.6	
		50	SH 10 - 050	2.50	12.0		10.8		9.6	
		55	SH 10 - 055	2.27	13.2		11.8		10.6	
		60	SH 10 - 060	2.08	14.4		13.0		11.5	
		65	SH 10 - 065	1.92	15.6		14.0		12.5	
		70	SH 10 - 070	1.79	16.8		15.1		13.4	
		75	SH 10 - 075	1.67	18.0		16.2		14.4	
80	SH 10 - 080	1.56	19.2	17.3	15.4					
12	6	20	SH 12 - 020	8.90	4.8	43 (422)	4.3	38 (373)	3.8	34 (333)
		25	SH 12 - 025	7.10	6.0		5.4		4.8	
		30	SH 12 - 030	5.97	7.2		6.5		5.8	
		35	SH 12 - 035	5.11	8.4		7.5		6.7	
		40	SH 12 - 040	4.47	9.6		8.6		7.7	
		45	SH 12 - 045	3.98	10.8		9.7		8.6	
		50	SH 12 - 050	3.58	12.0		10.8		9.6	
		55	SH 12 - 055	3.25	13.2		11.8		10.6	
		60	SH 12 - 060	2.98	14.4		13.0		11.5	
		65	SH 12 - 065	2.74	15.6		14.0		12.5	
		70	SH 12 - 070	2.54	16.8		15.1		13.4	
		75	SH 12 - 075	2.37	18.0		16.2		14.4	
80	SH 12 - 080	2.21	19.2	17.3	15.4					
14	7	25	SH 14 - 025	9.83	6.0	59 (579)	5.4	53 (520)	4.8	47 (461)
		30	SH 14 - 030	8.19	7.2		6.5		5.8	
		35	SH 14 - 035	7.02	8.4		7.5		6.7	
		40	SH 14 - 040	6.14	9.6		8.6		7.7	
		45	SH 14 - 045	5.46	10.8		9.7		8.6	
		50	SH 14 - 050	4.91	12.0		10.8		9.6	
		55	SH 14 - 055	4.46	13.2		11.8		10.6	
		60	SH 14 - 060	4.09	14.4		13.0		11.5	
		65	SH 14 - 065	3.78	15.6		14.0		12.5	
		70	SH 14 - 070	3.51	16.8		15.1		13.4	
		75	SH 14 - 075	3.27	18.0		16.2		14.4	
		80	SH 14 - 080	3.07	19.2		17.3		15.4	
90	SH 14 - 090	2.72	21.6	19.4	17.3					
16	8	25	SH 16 - 025	12.83	6.0	77 (755)	5.4	69 (677)	4.8	62 (608)
		30	SH 16 - 030	10.69	7.2		6.5		5.8	
		35	SH 16 - 035	9.16	8.4		7.5		6.7	
		40	SH 16 - 040	8.02	9.6		8.6		7.7	
		45	SH 16 - 045	7.12	10.8		9.7		8.6	
		50	SH 16 - 050	6.41	12.0		10.8		9.6	
		55	SH 16 - 055	5.83	13.2		11.8		10.6	
		60	SH 16 - 060	5.34	14.4		13.0		11.5	
		65	SH 16 - 065	4.93	15.6		14.0		12.5	
		70	SH 16 - 070	4.58	16.8		15.1		13.4	
		75	SH 16 - 075	4.28	18.0		16.2		14.4	
		80	SH 16 - 080	4.01	19.2		17.3		15.4	
90	SH 16 - 090	3.57	21.6	19.4	17.3					
100	SH 16 - 100	3.21	24.0	21.6	19.2					



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					Deflection	Load	Deflection	Load	Deflection	Load
mm	mm	mm		Kgf / mm	mm	Kgf (N)	mm	Kgf (N)	mm	Kgf (N)
18	9	25	SH 18 - 025	16.16	6.0	97 (951)	5.4	87 (853)	4.8	78 (765)
		30	SH 18 - 030	13.47	7.2		6.5		5.8	
		35	SH 18 - 035	11.54	8.4		7.5		6.7	
		40	SH 18 - 040	10.10	9.6		8.6		7.7	
		45	SH 18 - 045	8.98	10.8		9.7		8.6	
		50	SH 18 - 050	8.08	12.0		10.8		9.6	
		55	SH 18 - 055	7.34	13.2		11.8		10.6	
		60	SH 18 - 060	6.73	14.4		13.0		11.5	
		65	SH 18 - 065	6.21	15.6		14.0		12.5	
		70	SH 18 - 070	5.77	16.8		15.1		13.4	
		75	SH 18 - 075	5.39	18.0		16.2		14.4	
		80	SH 18 - 080	5.05	19.2		17.3		15.4	
		90	SH 18 - 090	4.50	21.6		19.4		17.3	
100	SH 18 - 100	4.04	24.0	21.6	19.2					
20	10	25	SH 20 - 025	20.00	6.0	120 (1,177)	5.4	108 (1,059)	4.8	96 (941)
		30	SH 20 - 030	16.66	7.2		6.5		5.8	
		35	SH 20 - 035	14.28	8.4		7.5		6.7	
		40	SH 20 - 040	12.50	9.6		8.6		7.7	
		45	SH 20 - 045	11.11	10.8		9.7		8.6	
		50	SH 20 - 050	10.00	12.0		10.8		9.6	
		55	SH 20 - 055	9.09	13.2		11.8		10.6	
		60	SH 20 - 060	8.33	14.4		13.0		11.5	
		65	SH 20 - 065	7.69	15.6		14.0		12.5	
		70	SH 20 - 070	7.14	16.8		15.1		13.4	
		75	SH 20 - 075	6.67	18.0		16.2		14.4	
		80	SH 20 - 080	6.25	19.2		17.3		15.4	
		90	SH 20 - 090	5.55	21.6		19.4		17.3	
		100	SH 20 - 100	5.00	24.0		21.6		19.2	
		125	SH 20 - 125	4.00	30.0		27.0		24.0	
150	SH 20 - 150	3.33	36.0	32.4	28.8					
22	11	25	SH 22 - 025	24.16	6.0	145 (1,422)	5.4	130 (1,275)	4.8	116 (1,138)
		30	SH 22 - 030	20.13	7.2		6.5		5.8	
		35	SH 22 - 035	17.30	8.4		7.5		6.7	
		40	SH 22 - 040	15.10	9.6		8.6		7.7	
		45	SH 22 - 045	13.40	10.8		9.7		8.6	
		50	SH 22 - 050	12.08	12.0		10.8		9.6	
		55	SH 22 - 055	10.94	13.2		11.8		10.6	
		60	SH 22 - 060	10.06	14.4		13.0		11.5	
		65	SH 22 - 065	9.28	15.6		14.0		12.5	
		70	SH 22 - 070	8.63	16.8		15.1		13.4	
		75	SH 22 - 075	8.04	18.0		16.2		14.4	
		80	SH 22 - 080	7.55	19.2		17.3		15.4	
		90	SH 22 - 090	6.71	21.6		19.4		17.3	
		100	SH 22 - 100	6.04	24.0		21.6		19.2	
		125	SH 22 - 125	4.83	30.0		27.0		24.0	
150	SH 22 - 150	4.02	36.0	32.4	28.8					



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					Deflection	Load	Deflection	Load	Deflection	Load
mm	mm	mm		Kgf / mm	mm	Kgf (N)	mm	Kgf (N)	mm	Kgf (N)
25	12.5	25	SH 25 - 025	31.20	6.0	187 (1,834)	5.4	169 (1,657)	4.8	150 (1,471)
		30	SH 25 - 030	25.97	7.2		6.5		5.8	
		35	SH 25 - 035	22.38	8.4		7.5		6.7	
		40	SH 25 - 040	19.47	9.6		8.6		7.7	
		45	SH 25 - 045	17.40	10.8		9.7		8.6	
		50	SH 25 - 050	15.58	12.0		10.8		9.6	
		55	SH 25 - 055	14.20	13.2		11.9		10.6	
		60	SH 25 - 060	12.98	14.4		13.0		11.5	
		65	SH 25 - 065	12.00	15.6		14.0		12.5	
		70	SH 25 - 070	11.13	16.8		15.1		13.4	
		75	SH 25 - 075	10.40	18.0		16.2		14.4	
		80	SH 25 - 080	9.73	19.2		17.3		15.4	
		90	SH 25 - 090	8.65	21.6		19.4		17.3	
		100	SH 25 - 100	7.79	24.0		21.6		19.2	
		125	SH 25 - 125	6.23	30.0		27.0		24.0	
150	SH 25 - 150	5.20	36.0	32.4	28.8					
175	SH 25 - 175	4.46	42.0	37.8	33.6					
27	13.5	25	SH 27 - 025	36.40	6.0	219 (2,150)	5.4	197 (1,932)	4.8	175 (1,716)
		30	SH 27 - 030	30.41	7.2		6.5		5.8	
		35	SH 27 - 035	26.20	8.4		7.5		6.7	
		40	SH 27 - 040	22.81	9.6		8.6		7.7	
		45	SH 27 - 045	20.30	10.8		9.7		8.6	
		50	SH 27 - 050	18.25	12.0		10.8		9.6	
		55	SH 27 - 055	16.50	13.2		11.9		10.6	
		60	SH 27 - 060	15.20	14.4		13.0		11.5	
		65	SH 27 - 065	14.00	15.6		14.0		12.5	
		70	SH 27 - 070	13.03	16.8		15.1		13.4	
		75	SH 27 - 075	12.10	18.0		16.2		14.4	
		80	SH 27 - 080	11.40	19.2		17.3		15.4	
		90	SH 27 - 090	10.13	21.6		19.4		17.3	
		100	SH 27 - 100	9.12	24.0		21.6		19.2	
		125	SH 27 - 125	7.30	30.0		27.0		24.0	
150	SH 27 - 150	6.08	36.0	32.4	28.8					
175	SH 27 - 175	5.21	42.0	37.8	33.6					
30	15	25	SH 30 - 025	45.00	6.0	270 (2,550)	5.4	243 (2,380)	4.8	216 (2,120)
		30	SH 30 - 030	37.50	7.2		6.5		5.8	
		35	SH 30 - 035	32.26	8.4		7.5		6.7	
		40	SH 30 - 040	28.12	9.6		8.6		7.7	
		45	SH 30 - 045	25.00	10.8		9.7		8.6	
		50	SH 30 - 050	22.50	12.0		10.8		9.6	
		55	SH 30 - 055	20.40	13.2		11.9		10.6	
		60	SH 30 - 060	18.75	14.4		13.0		11.5	
		65	SH 30 - 065	17.30	15.6		14.0		12.5	
		70	SH 30 - 070	16.07	16.8		15.1		13.4	
		75	SH 30 - 075	15.00	18.0		16.2		14.4	
		80	SH 30 - 080	14.06	19.2		17.3		15.4	
		90	SH 30 - 090	12.50	21.6		19.4		17.3	
		100	SH 30 - 100	11.25	24.0		21.6		19.2	
		125	SH 30 - 125	9.00	30.0		27.0		24.0	
		150	SH 30 - 150	7.50	36.0		32.4		28.8	
		175	SH 30 - 175	6.42	42.0		37.8		33.6	
200	SH 30 - 200	5.62	48.0	43.2	38.4					



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					Deflection	Load	Deflection	Load	Deflection	Load
mm	mm	mm		Kgf / mm	mm	Kgf (N)	mm	Kgf (N)	mm	Kgf (N)
35	17.5	40	SH 35 - 040	38.22	9.6	367 (3,600)	8.6	330 (3,240)	7.7	293 (2,870)
		45	SH 35 - 045	33.98	10.8		9.7		8.6	
		50	SH 35 - 050	30.58	12.0		10.8		9.6	
		55	SH 35 - 055	27.80	13.2		11.9		10.5	
		60	SH 35 - 060	25.48	14.4		13.0		11.5	
		65	SH 35 - 065	23.53	15.6		14.0		12.5	
		70	SH 35 - 070	21.84	16.8		15.1		13.4	
		75	SH 35 - 075	20.39	18.0		16.2		14.4	
		80	SH 35 - 080	19.11	19.2		17.3		15.4	
		90	SH 35 - 090	16.99	21.6		19.4		17.3	
		100	SH 35 - 100	15.29	24.0		21.6		19.2	
		125	SH 35 - 125	12.23	30.0		27.0		24.0	
		150	SH 35 - 150	10.19	36.0		32.4		28.8	
		175	SH 35 - 175	8.73	42.0		37.8		33.6	
200	SH 35 - 200	7.64	48.0	43.2	38.4					
40	20	40	SH 40 - 040	50.00	9.6	480 (4,710)	8.6	432 (4,240)	7.7	384 (3,770)
		50	SH 40 - 050	40.00	12.0		10.8		9.6	
		60	SH 40 - 060	33.33	14.4		13.0		11.5	
		70	SH 40 - 070	28.57	16.8		15.1		13.4	
		80	SH 40 - 080	25.00	19.2		17.3		15.4	
		90	SH 40 - 090	22.22	21.6		19.4		17.3	
		100	SH 40 - 100	20.00	24.0		21.6		19.2	
		125	SH 40 - 125	16.00	30.0		27.0		24.0	
		150	SH 40 - 150	13.33	36.0		32.4		28.8	
		175	SH 40 - 175	11.42	42.0		37.8		33.6	
		200	SH 40 - 200	10.00	48.0		43.2		38.4	
250	SH 40 - 250	8.00	60.0	54.0	48.0					
50	25	50	SH 50 - 050	62.50	12.0	750 (7,360)	10.8	675 (6,620)	9.6	600 (5,880)
		60	SH 50 - 060	52.08	14.4		13.0		11.5	
		70	SH 50 - 070	44.64	16.8		15.1		13.4	
		80	SH 50 - 080	39.06	19.2		17.3		15.4	
		90	SH 50 - 090	34.72	21.6		19.4		17.3	
		100	SH 50 - 100	31.25	24.0		21.6		19.2	
		125	SH 50 - 125	25.00	30.0		27.0		24.0	
		150	SH 50 - 150	20.83	36.0		32.4		28.8	
		175	SH 50 - 175	17.85	42.0		37.8		33.6	
		200	SH 50 - 200	15.62	48.0		43.2		38.4	
		250	SH 50 - 250	12.50	60.0		54.0		48.0	
300	SH 50 - 300	10.41	72.0	64.8	57.6					
60	30	60	SH 60 - 060	75.00	14.4	1,080 (10,590)	13.0	973 (9,540)	11.5	864 (8,470)
		70	SH 60 - 070	64.28	16.8		15.1		13.4	
		80	SH 60 - 080	56.25	19.2		17.3		15.4	
		90	SH 60 - 090	50.00	21.6		19.4		17.3	
		100	SH 60 - 100	45.00	24.0		21.6		19.2	
		125	SH 60 - 125	36.00	30.0		27.0		24.0	
		150	SH 60 - 150	30.00	36.0		32.4		28.8	
		175	SH 60 - 175	25.71	42.0		37.8		33.6	
		200	SH 60 - 200	22.50	48.0		43.2		38.4	
		250	SH 60 - 250	18.00	60.0		54.0		48.0	
300	SH 60 - 300	15.00	72.0	64.8	57.6					

