



Raymond®			HEAVY DUTY DIE SPRINGS		INCH SERIES GOLD								
Spring O.D. Hole Dia.	Spring I.D. Rod Dia.	Free Length (in)	CATALOG NUMBER	PART NUMBER	Load at 1/10 in. Def. (lb)	LOAD DEFLECTION TABLE							
						For Optimum Life (15% of free length)		For Long Life (20% of free length)		Maximum Operating Def. (25% of free length)		*Maximum Deflection (30% of free length)	
A	B	C				Load (lb)	Deflection (in)	Load (lb)	Deflection (in)	Load (lb)	Deflection (in)	Load (lb)	Deflection (in)
1	1/2	1	10 H 10	H-12	208.0	312.0	0.15	416.0	0.20	520.0	0.25	624.0	0.30
		1 1/4	10 H 12	H-12A	171.2	321.0	0.19	428.0	0.25	535.0	0.31	642.0	0.38
		1 1/2	10 H 15	H-13	118.4	266.4	0.23	355.2	0.30	444.0	0.38	532.8	0.45
		1 3/4	10 H 17	H-13A	104.0	273.0	0.26	364.0	0.35	455.0	0.44	546.0	0.53
		2	10 H 20	H-14	90.0	270.0	0.30	360.0	0.40	450.0	0.50	540.0	0.60
		2 1/2	10 H 25	H-15	68.0	255.0	0.38	340.0	0.50	425.0	0.63	510.0	0.75
		3	10 H 30	H-16	54.4	244.8	0.45	326.4	0.60	408.0	0.75	489.6	0.90
		3 1/2	10 H 35	H-17	45.6	239.4	0.53	319.2	0.70	399.0	0.88	478.8	1.05
		4	10 H 40	H-18	40.0	240.0	0.60	320.0	0.80	400.0	1.00	480.0	1.20
		4 1/2	10 H 45	H-19	35.2	237.6	0.68	316.8	0.90	396.0	1.13	475.2	1.35
		5	10 H 50	H-20	31.2	234.0	0.75	312.0	1.00	390.0	1.25	468.0	1.50
		5 1/2	10 H 55	H-20A	28.8	237.6	0.83	316.8	1.10	396.0	1.38	475.2	1.65
6	10 H 60	H-21	25.6	230.4	0.90	307.2	1.20	384.0	1.50	460.8	1.80		
7	10 H 70	H-21A	22.4	235.2	1.05	313.6	1.40	392.0	1.75	470.4	2.10		
8	10 H 80	H-22	19.2	230.4	1.20	307.2	1.60	384.0	2.00	460.8	2.40		
12	10 H 120	H-22A	12.0	216.0	1.80	288.0	2.40	360.0	3.00	432.0	3.60		
1 1/4	5/8	1 1/2	12 H 15	H-36	212.0	477.0	0.23	636.0	0.30	795.0	0.38	954.0	0.45
		1 3/4	12 H 17	H-36A	181.6	476.7	0.26	635.6	0.35	794.5	0.44	953.4	0.53
		2	12 H 20	H-37	149.6	448.8	0.30	598.4	0.40	748.0	0.50	897.6	0.60
		2 1/2	12 H 25	H-38	117.6	441.0	0.38	588.0	0.50	735.0	0.63	882.0	0.75
		3	12 H 30	H-39	95.2	428.4	0.45	571.2	0.60	714.0	0.75	856.8	0.90
		3 1/2	12 H 35	H-40	75.2	394.8	0.53	526.4	0.70	658.0	0.88	789.6	1.05
		4	12 H 40	H-41	66.4	398.4	0.60	531.2	0.80	664.0	1.00	796.8	1.20
		4 1/2	12 H 45	H-42	58.4	394.2	0.68	525.6	0.90	657.0	1.13	788.4	1.35
		5	12 H 50	H-43	53.0	397.5	0.75	530.0	1.00	662.5	1.25	795.0	1.50
		5 1/2	12 H 55	H-44	47.2	389.4	0.83	519.2	1.10	649.0	1.38	778.8	1.65
		6	12 H 60	H-45	42.4	381.6	0.90	508.8	1.20	636.0	1.50	763.2	1.80
		7	12 H 70	H-46	36.8	386.4	1.05	515.2	1.40	644.0	1.75	772.8	2.10
8	12 H 80	H-47	32.8	393.6	1.20	524.8	1.60	656.0	2.00	787.2	2.40		
10	12 H 100	H-48	25.6	384.0	1.50	512.0	2.00	640.0	2.50	768.0	3.00		
12	12 H 120	H-48A	20.8	374.4	1.80	499.2	2.40	624.0	3.00	748.8	3.60		
1 1/2	3/4	2	15 H 20	H-49	190.4	571.2	0.30	761.6	0.40	952.0	0.50	1142.4	0.60
		2 1/2	15 H 25	H-50	155.0	581.3	0.38	775.0	0.50	968.8	0.63	1162.5	0.75
		3	15 H 30	H-51	130.0	585.0	0.45	780.0	0.60	975.0	0.75	1170.0	0.90
		3 1/2	15 H 35	H-52	106.4	558.6	0.53	744.8	0.70	931.0	0.88	1117.2	1.05
		4	15 H 40	H-53	91.2	547.2	0.60	729.6	0.80	912.0	1.00	1094.4	1.20
		4 1/2	15 H 45	H-54	78.4	529.2	0.68	705.6	0.90	882.0	1.13	1058.4	1.35
		5	15 H 50	H-55	71.2	534.0	0.75	712.0	1.00	890.0	1.25	1068.0	1.50
		5 1/2	15 H 55	H-55A	64.0	528.0	0.83	704.0	1.10	880.0	1.38	1056.0	1.65
		6	15 H 60	H-56	58.4	525.6	0.90	700.8	1.20	876.0	1.50	1051.2	1.80
		7	15 H 70	H-56A	49.6	520.8	1.05	694.4	1.40	868.0	1.75	1041.6	2.10
		8	15 H 80	H-57	43.2	518.4	1.20	691.2	1.60	864.0	2.00	1036.8	2.40
		10	15 H 100	H-58	34.4	516.0	1.50	688.0	2.00	860.0	2.50	1032.0	3.00
12	15 H 120	H-58A	28.8	518.4	1.80	691.2	2.40	864.0	3.00	1036.8	3.60		
2	1	2 1/2	20 H 25	H-70	260.0	975.0	0.38	1300.0	0.50	1625.0	0.63	1950.0	0.75
		3	20 H 30	H-71	200.0	900.0	0.45	1200.0	0.60	1500.0	0.75	1800.0	0.90
		3 1/2	20 H 35	H-72	170.0	892.5	0.53	1190.0	0.70	1487.5	0.88	1785.0	1.05
		4	20 H 40	H-73	150.0	900.0	0.60	1200.0	0.80	1500.0	1.00	1800.0	1.20
		4 1/2	20 H 45	H-74	120.0	810.0	0.68	1080.0	0.90	1350.0	1.13	1620.0	1.35
		5	20 H 50	H-75	110.0	825.0	0.75	1100.0	1.00	1375.0	1.25	1650.0	1.50
		5 1/2	20 H 55	H-76	100.0	825.0	0.83	1100.0	1.10	1375.0	1.38	1650.0	1.65
		6	20 H 60	H-77	94.0	846.0	0.90	1128.0	1.20	1410.0	1.50	1692.0	1.80
		7	20 H 70	H-79	82.0	861.0	1.05	1148.0	1.40	1435.0	1.75	1722.0	2.10
		8	20 H 80	H-80	73.0	876.0	1.20	1168.0	1.60	1460.0	2.00	1752.0	2.40
		10	20 H 100	H-82	55.0	825.0	1.50	1100.0	2.00	1375.0	2.50	1650.0	3.00
		12	20 H 120	H-83	42.0	756.0	1.80	1008.0	2.40	1260.0	3.00	1512.0	3.60

*Tabulated load values shown represent loads near solid and are for design information only.