



Coil Shock Spring Rate Recommendations for Blackthorn 2

Table #1 55mm Stroke Shock (145mm Travel)							
Coil Spring Size		Rider Weight per Coil Spring Size					
		Min 27% Sag		Ideal 30% Sag		Max 30% Sag @ 2 Turns	
lbf/in	kg/cm	lb	kg	lb	kg	lb	kg
250	45	83	38	92	42	104	47
300	54	100	45	111	50	124	56
350	63	116	53	129	59	145	66
400	71	133	60	148	67	166	75
450	80	150	68	166	75	186	84
500	89	166	75	185	84	207	94
550	98	183	83	203	92	228	103
600	107	199	90	222	101	248	112
650	116	216	98	240	109	269	122
700	125	233	106	258	117	290	132

Table #2 50mm Stroke Shock (135mm Travel)							
Coil Spring Size		Rider Weight per Coil Spring Size					
		Min 27% Sag		Ideal 30% Sag		Max 30% Sag @ 2 Turns	
lbf/in	kg/cm	lb	kg	lb	kg	lb	kg
250	45	75	34	84	38	95	43
300	54	90	41	100	45	114	52
350	63	105	48	117	53	133	60
400	71	120	54	134	61	152	69
450	80	136	62	151	68	171	78
500	89	151	68	167	76	190	86
550	98	166	75	184	83	209	95
600	107	181	82	201	91	228	103
650	116	196	89	217	98	246	112
700	125	211	96	234	106	265	120

Table #3 45mm Stroke Shock (125mm Travel)							
Coil Spring Size		Rider Weight per Coil Spring Size					
		Min 27% Sag		Ideal 30% Sag		Max 30% Sag @ 2 Turns	
lbf/in	kg/cm	lb	kg	lb	kg	lb	kg
250	45	67	30	75	34	86	39
300	54	81	37	90	41	103	47
350	63	94	43	105	48	120	54
400	71	108	49	120	54	138	63
450	80	121	55	135	61	155	70
500	89	135	61	150	68	172	78
550	98	148	67	165	75	189	86
600	107	162	73	180	82	206	93
650	116	175	79	195	88	224	102
700	125	189	86	210	95	241	109

Notes

A	Values listed in the tables above are calculations to be used as a starting point. Check for ~30% sag and do not exceed shock manufacturer's allowable maximum turns of preload
B	Some of the coil spring sizes listed above may not be available at that particular stroke length. Check with shock manufacturer

Revision:	A
Date:	2025-APR-10
Initials:	PK