

a great deal depends on the rider and you can usually tell who has MotoCross experience. By keeping the front up and landing with enough throttle on, they don't risk a front wheel landing. On top of that, the antisquat kicks in and helps to support the rear. As for sudden inclines, you may just have to accept the forks bottoming to get them working at their best elsewhere.

Because all bikes and riders are different, there is a limit to how far I can take this in a book, however Table 6.6 shows some of the chassis changes made to a front running BSB bike for races at Oulton Park, Cadwell Park and Thruxton. In general, Race 2 settings are obviously a refinement of Race 1, but in the case of Oulton Park, Race 1 was wet and Race 2 dry.

For the wet, note the softened springing front and rear, and the reduced compression damping. Also note the reduced swinging arm length, specifically to put more weight on the rear for increased grip and the lowered gearing (more teeth on rear).

At Thruxton (dry), note the raised front end to give a bit more stability via rake and trail. Also note the significantly softer rear springing than for Oulton or Cadwell in the dry because Thruxton is flat and relatively bumpy in places.

There is also a reduction in the top out spring stiffness (shock) to suit that. It's a case of trying to select the top out spring's product of length

Table 6.6 Set-up examples, refer to text.

Setting	Oulton Park		Cadwell Park		Thruxton	
	Race 1	Race 2	Race 1	Race 2	Race 1	Race 2
Fork preload (mm)	12.5	10.5	16.5	13	13	13
Fork spring (N/mm)	9.75	11.25	10.5	11.5	10.75	10.75
Fork air gap (mm)	280	280	290	280	280	280
Top out spring (N/mm)	4	4	4	4	4	4
Top out length (mm)	40	40	40	40	40	40
Comp damp (clicks out)	24	17	15	17	18	18
Reb damp (clicks out)	22	18	20	18	18	18
Shock spring (N/mm)	82.3	94	95	98.5	90	90
Shock preload (mm)	13	15	14	13.5	15.5	15.5
Top out spring (N/mm)	185	185	185	185	150	150
Top out length (mm)	8	8	8	8	8	8
Comp damp (clicks out)	18	15	15	14	12	12
Reb damp (clicks out)	18	19	14	15	18	18
Swinging arm length (mm)	595	611	607	623	607	607
Sprockets (F-R)	16-46	16-42	15-44	15-44	16-43	16-43
Front ride height (mm)	466	466	469.5	466.5	470.5	470.5
Fork yoke offset (mm)	25	25	25	25	25	25
Top clevis rd ht adj (mm)	0	0	0	0	0	0
Rake change insert	0.5	0.5	0	0.5	0	0
Linkage	Std	Std	Std	Std	Std	Std
Conditions	Wet	Dry	Dry	Dry	Dry	Dry