

▲ Setting Sag

After working here for 3 months I realised that the sag issue is still a bit of a mystery to most of you, so let's try to shed some light on it.

Sag is divided into 2 measurements:

STATIC SAG AND RIDER SAG

Static sag = the amount the bike sags under its own weight.

Rider sag = the amount the bike with the rider sags.

► **STARTING POINT** Sag (static and rider) are both measured from the same starting point. This starting point is when the bike is on a centre

stand and the rear wheel is in the air. Now take the distance from the axle centre to a point on the bikes rear mudguard measured vertically. Write this down e.g. 1000mm.

[**STATIC SAG**] To get the static sag remove the bike from the stand (on a flat surface with bike in neutral and no brakes on) and measure again between the same 2 points. Let's say in our example we read 970mm. This means the static sag is $1000\text{mm} - 970\text{mm} = 30\text{mm}$

[**RIDER SAG**] Now get someone to hold the bike while you sit on it in your normal riding position preferably in your gear. Get them to measure again between the same points. For example you measure 900mm so the riders sag in this case is $1000\text{mm} -$

$900\text{mm} = 100\text{mm}$.

The critical information needed to choose the correct spring for your weight is the RELATIONSHIP between these 2 figures. It does not help if one figure is correct and the other is out. Adding and removing preload to the spring will enable you to get one figure in the ballpark, but if the spring is wrong you will always have the second measurement out of its range.

■ Below is a table explaining what is happening when you add and remove preload.

	Sag		Spring	Preload	Result
Case No 1	Static sag	OK	too soft	OK	no good
	Rider sag	too much			
Case No 2	Static sag	OK	too hard	OK	no good
	Rider sag	too little			
Case No 3	Static sag	too little	too soft	too much	no good
	Rider sag	OK			
Case No 4	Static sag	too much	too hard	too little	no good
	Rider sag	OK			
Case No 5	Static sag	OK	Ok	OK	Bingo!
	Rider sag	OK			