

# Bike Friday chain-line adjustment made 28th June 2015

## Preamble:

I tried to adjust the derailleurs about 31st May  
I measured them and found the chain-line was way out.

The stokers "drive chainrings averaged 38.5mm.  
It was therefore almost impossible to adjust the front derailleur. The timing chain was outermost front and rear but as the crank lengths are 5500 (front double) 109.5 while the rear 5503 (triple) is 118.5 so even timing chain-line was out.  
Front measured ~47 while rear ~57

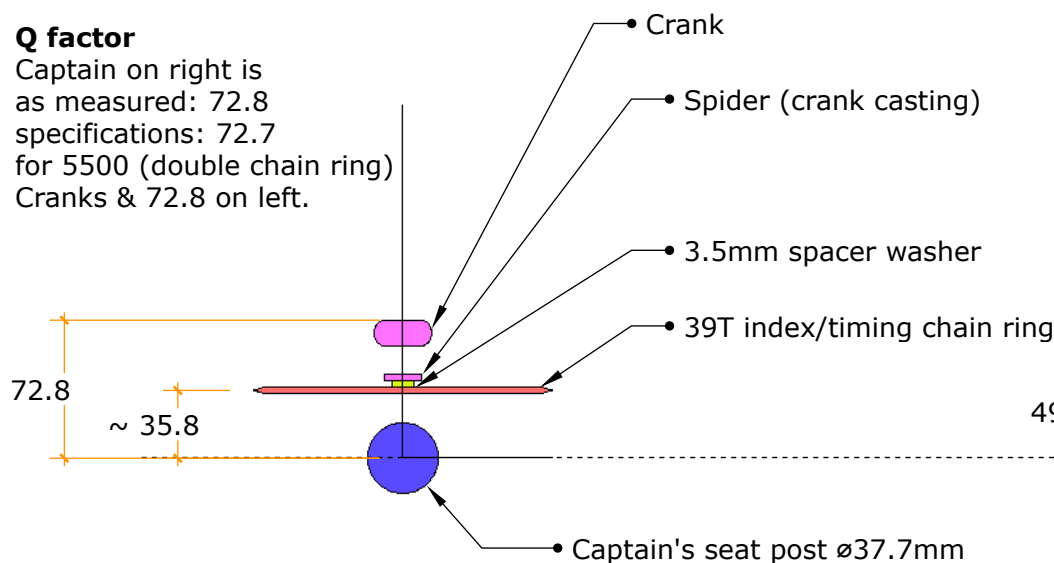
**Crank Shaft spacers** on either side of the bottom bracket bearing case (rear). The left side is supposed to be 3mm and the right 6.5mm.  
I have been swapped to move the Right crank 3.5mm inboard.  
This seems to correlate with the specified chain-line for 5503 (triple chainring) of 45mm less 3.5mm would be 41.5 and mine measures 42.2

## Q factor

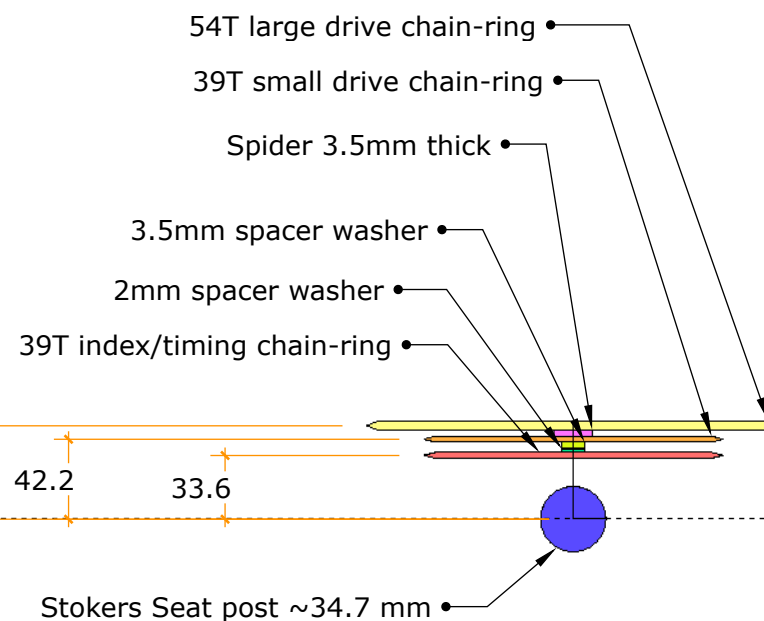
Stoker on right is as measured:  $79.4 - 3.5 = 75.9$   
specifications: 78.7 right (for 5503 triple chain-ring cranks as fitted) & 75.8 left

## Q factor

Captain on right is as measured: 72.8  
specifications: 72.7 for 5500 (double chain ring) Cranks & 72.8 on left.



**Captain's Chain ring**



**Stoker's chain rings**

**Timing Chain-line** is 35.73 front and 33.6 at the rear  
an extra 2mm spacer washer will bring these almost perfectly aligned.

**Drive Chain-line** is between 42.2 and 49.3 or an average of 45.75.  
The centre sprocket on the rear cassette measures ~ 45mm and according to Sram is 45mm on the "disc-brake version".  
This is very close to perfect.