

PŘÍLOHA 1: Podrobný výstup z nastavování posedu metodikou Retül

Personal Bicycle Fitting Report



VIT VESELY
2017-03-09 09:58

RIDER

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SITE

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Prague 7, 170 00
Czech Republic
+420 775 367 648

BIKE

MAKE/MODEL: Colnago, CLX3
SIZE: 54c
YEAR: 2013
TYPE: Road

FITTER

Administrator
Admin

SUMMARY OF SESSION

ZIN REPORT: NOVA POZICE

2013, 54s - Colnago, CLX3 (Road)

Notes:

COMPONENTS

STEM	SPACER STACK	CRANK LENGTH	PEDALS	SADDLE	BARs	SHOES
6" x 120 mm	35 mm	172.5 mm	Speedplay CrMo	Prologo Scratch 2	DEBA RHM 01 420mm	DMT Scorpions Tri

MEASUREMENTS & ANGLES



Saddle Height: 796 mm
BB to center of saddle profile

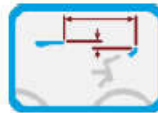


Handlebar Reach: 564 mm
tip of saddle horiz to bar top

Handlebar Drop: -76 mm
cen of saddle profile to bar top grip, - denotes bar below saddle



Saddle Setback: -82 mm
BB horiz to front tip of saddle grip, - denotes saddle behind BB



Grip Reach: 728 mm
tip of saddle horiz to front end of grip

Grip Drop: -41 mm
cen of saddle to front end of grip, - denotes grip lower



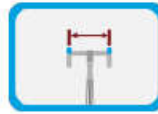
Saddle Angle: -4°
angle of saddle to horizon grip, - denotes nose down



Bar Reach: 47 mm
center of bar to back end of grip



Eff. Seat Tube Angle: 74°
BB to center of saddle profile



Grip Width: 414 mm
grip center to center



Grip Angle: 25°
angle to horizon + denotes front end up



BB to Grip Reach: 646 mm
BB to front end of grip



Frame Stack: 575 mm
Frame Reach: 387 mm
BB to center of headtube top



Handlebar Stack: 672 mm
Handlebar Reach: 482 mm
BB to center of bar

THIS BIKE FIT PERFORMED USING THE **RETUL** SYSTEM

ZIN REPORT: PUVODNI POZICE

2013, 54s - Colnago, CLX3 (Road)

Notes:

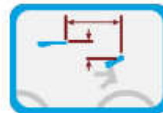
COMPONENTS

STEM	SPACER STACK	CRANK LENGTH	PEDALS	SADDLE	BAR	SHOES
-6 ° x 120 mm	30 mm	172.5 mm	Speedplay CrMo	DEDA RHM 01 420mm	DMT Scorpions Tri	

MEASUREMENTS & ANGLES



Saddle Height: 775 mm
BB to center of saddle profile

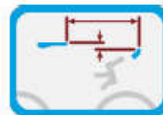


Handlebar Reach: 557 mm
tip of saddle horiz to bar top

Handlebar Drop: -84 mm
cen of saddle profile to bar top grip, - denotes bar below saddle



Saddle Setback: -67 mm
BB horiz to front tip of saddle grip, - denotes saddle behind BB



Grip Reach: 725 mm
tip of saddle horiz to front end of grip

Grip Drop: -68 mm
cen of saddle to front end of grip, - denotes grip lower



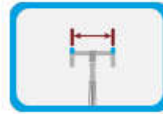
Saddle Angle: -6 °
angle of saddle to horizon grip, - denotes nose down



Bar Reach: 48 mm
center of bar to back end of grip



Eff. Seat Tube Angle: 75 °
BB to center of saddle profile



Grip Width: 410 mm
grip center to center



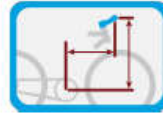
Grip Angle: 18 °
angle to horizon + denotes front end up



BB to Grip Reach: 659 mm
BB to front end of grip



Frame Stack: 580 mm
Frame Reach: 385 mm
BB to center of headtube top



Handlebar Stack: 648 mm
Handlebar Reach: 490 mm
BB to center of bar

THIS BIKE FIT PERFORMED USING THE **RETUL** SYSTEM

FIT REPORT: POZICE CYKLISTY

Colnago, CLX3

Power: Unknown Watts





Left Notes:

Right Notes:

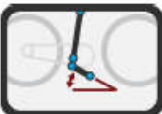


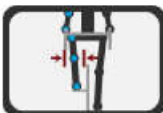
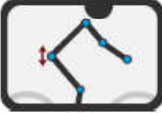
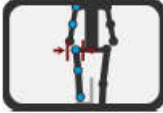
FIT ANGLES

L		R		L		R	
	84°	Ankle Angle Min	77°		105°	Knee Angle Flexion	105°
	95°	Ankle Angle Max	93°		38°	Knee Angle Extension	35°
	11°	Ankle Angle Range	16°		67°	Knee Angle Range	70°
	63°	Hip Angle Closed	68°		42°	Back From Level	45°
	108°	Hip Angle Open	113°				
	45°	Hip Angle Range	45°				
	81°	Hip-Shoulder-Wrist	80°		63°	Hip-Shoulder-Elbow	66°
	133°	Elbow Angle	145°		-33°	Forearm From Level	-36°

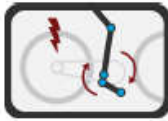
FIT ALIGNMENT

L		R		L		R	
	7 mm	Knee to Foot Forward	3 mm		30 mm	Knee to Foot Lateral	21 mm
	-6 mm	Hip to Foot Lateral	-18 mm		3 mm	Shoulder to Wrist Lateral	18 mm

FIT MOVEMENT

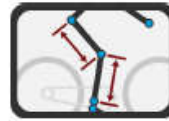
L		R		L		R	
	-28°	Foot from Level Mean	-23°		-9°	Foot Float Angle Min	-15°
					-7°	Foot Float Angle Mean	-14°
					-5°	Foot Float Angle Max	-13°
	1°	Knee Travel Tilt	-1°		34 mm	Knee Lateral Travel	30 mm
	72 mm	Hip Vertical Travel	62 mm		24 mm	Hip Lateral Travel	20 mm

WORKLOAD



	L	R
106	Cadence Mean	96
291	Cadence Maximum	108

ANTHROPOMETRICS



	L	R
464 mm	Thigh Length	470 mm
431 mm	Shin Length	434 mm



-109 mm	Hip-Wrist Vertical	-110 mm
712 mm	Hip-Wrist Forward	731 mm



37 mm	Hip-Elbow Vertical	58 mm
493 mm	Hip-Elbow Forward	505 mm

MARKER PATH

Note: Marker paths viewed from the front will be on the opposite side of the report. The paths representing the right side of the body will be shown on the left and vice versa.



Front View of Right Knee Path:



Front View of Left Knee Path:



Bike Frame



THIS BIKE FIT PERFORMED USING THE **RETÚL** SYSTEM

VIEWS

PRED UPRAVAMI



PO UPRAVE



THIS BIKE FIT PERFORMED USING THE **RETÜL** SYSTEM



BICYCLE MEASUREMENT DEFINITIONS

KEY	DESCRIPTION/DEFINITION	KEY	DESCRIPTION/DEFINITION
Common Bike Definitions (used on all reports)			
	<p>Frame Stack and Reach The horizontal and vertical distances from the center of the bottom bracket to the center of the top of the headtube.</p>		<p>Handlebar Stack & Reach The horizontal and vertical distance from the center of the bottom bracket to the center of the handlebar.</p>
	<p>Handlebar Reach The horizontal distance from the front tip of the saddle to the center of the handlebar.</p>		<p>Effective Seat Tube Angle The angle between horizontal and the saddle height axis defined in saddle height.</p>
	<p>Handlebar Drop The vertical distance from the center point of the saddle profile to the top of the handlebar. A negative value signifies the handlebar being lower than the saddle.</p>		<p>Saddle Setback The horizontal distance from the front tip of the saddle to the center of the bottom bracket. A negative value signifies the saddle being rearward of the bottom bracket.</p>
	<p>Saddle Height The distance from the center of the bottom bracket to the horizontal midpoint of the saddle profile.</p>		
	<p>Saddle Angle The angle between horizontal and the line tangent to the top of the saddle. A negative value signifies the nose of the saddle being lower than the rear of the saddle.</p>		
Road Bike Definitions (used on road reports)			
	<p>BB to Grip Reach The horizontal distance from the center of the bottom bracket to the frontmost point of the grip.</p>		<p>Grip Reach The horizontal distance from the front tip of the saddle to the frontmost point of the grip.</p>
	<p>Grip Drop The vertical distance from the center point of the saddle profile to the frontmost point of the grip. A negative value signifies the grip being lower than the saddle.</p>		<p>Grip Drop The vertical distance from the center point of the saddle profile to the frontmost point of the grip. A negative value signifies the grip being lower than the saddle.</p>
	<p>Grip Angle The angle between horizontal and the best fit line to the traced grip contour. A positive value signifies the front of the grip being higher than the rear.</p>		<p>Bar Reach The horizontal distance from the top of the handlebar to the rearmost point of the grip.</p>





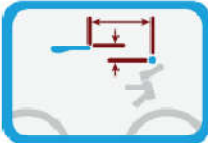




BICYCLE MEASUREMENT DEFINITIONS

KEY	DESCRIPTION/DEFINITION	KEY	DESCRIPTION/DEFINITION
<p>GRIP WIDTH</p>	<p>Grip Width The 3D distance between the midpoints of the grip contours if both grips traced. Otherwise, two times the distance perpendicular from the plane of the bike to the midpoint of the single traced grip contour.</p>		
Tri Bike Definitions (used on tri/tt reports)			
	<p>Arm Pad Stack BB The vertical distance from the center of the bottom bracket to the top of the arm pad.</p>		<p>Arm Pad Reach BB The horizontal distance from the center of the bottom bracket to the back of the arm pad.</p>
	<p>BR to Grip Reach The horizontal distance from the center of the bottom bracket to the frontmost point of the grip.</p>		<p>Arm Pad Reach The horizontal distance from the front tip of the saddle to the back of the arm pad.</p>
	<p>Grip Reach The horizontal distance from the front tip of the saddle to the frontmost point of the grip.</p> <p>Grip Drop The vertical distance from the center point of the saddle profile to the frontmost point of the grip. A negative value signifies the grip being lower than the saddle.</p>		<p>Arm Pad Drop The vertical distance from the center point of the saddle profile to the top of the arm pad. A negative value signifies the arm pad being lower than the saddle.</p> <p>Grip Angle The angle between horizontal and the best fit line to the traced grip contour. A positive value signifies the front of the grip being higher than the rear.</p>
	<p>Arm Pad to Grip Reach The horizontal distance from the back of the arm pad to the frontmost point of the grip.</p>	<p>ARMPAD</p>	<p>Arm Pad Width The 3D distance between the midpoints of the arm pad contours if both grips traced. Otherwise, two times the distance perpendicular from the plane of the bike to the midpoint of the single traced arm pad contour.</p>
<p>GRIP WIDTH</p>	<p>Grip Width The 3D distance between the midpoints of the grip contours if both grips traced. Otherwise, two times the distance perpendicular from the plane of the bike to the midpoint of the single traced grip contour.</p>		





BICYCLE MEASUREMENT DEFINITIONS

KEY	DESCRIPTION/DEFINITION	KEY	DESCRIPTION/DEFINITION
Mountain Bike Definitions (used on mountain reports)			
	<p>Grip Reach The horizontal distance from the front tip of the saddle to the midpoint of the grip contour.</p> <p>Grip Drop The vertical distance from the center point of the saddle profile to the midpoint of the grip contour. A negative value signifies the grip being lower than the saddle.</p>		<p>Bar Rise The vertical distance from the top of the handlebar to the midpoint of the grip contour.</p>
 <p style="text-align: center;">SWEEP</p>	<p>Bar Sweep Angle The top view angle between the handlebar clamp axis and the line from the center of the handlebar to the midpoint of the grip contour.</p>	 <p style="text-align: center;">GRIP WIDTH</p>	<p>Grip Width The 3D distance between the midpoints of the grip contours if both grips traced. Otherwise, two times the distance perpendicular from the plane of the bike to the midpoint of the single traced grip contour.</p>
 <p style="text-align: center;">BAR WIDTH</p>	<p>Bar Width The 3D distance between the widest endpoints of the grip contours if both grips traced. Otherwise, two times the distance perpendicular from the plane of the bike to the widest endpoint of the single traced grip contour.</p>		






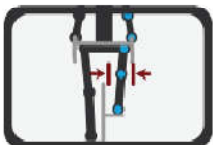
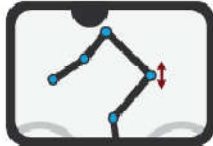

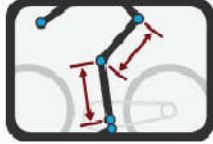

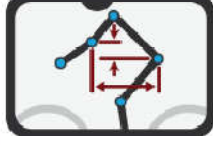




CYCLIST MEASUREMENT DEFINITIONS

KEY	DESCRIPTION/DEFINITION	KEY	DESCRIPTION/DEFINITION
	<p>Ankle Maximum & Minimum The average of each stroke's maximum and minimum 3D included angle defined by the knee-ankle line and the heel-foot line.</p> <p>Ankle Range The average of each stroke's difference between the maximum and minimum 3D included angle defined by the knee, ankle, and foot.</p>		<p>Knee Angle Flexion & Extension The average of each stroke's minimum and maximum 3D included angle defined by the hip, knee, and ankle. Alternata option is 180 minus the included angle.</p> <p>Knee Angle Range The average of each stroke's difference between the maximum and minimum 3D angle defined by the hip, knee, and ankle.</p>
	<p>Hip Angle Closed & Open The average of each stroke's minimum and maximum 3D included angle defined by the knee, hip, and shoulder.</p> <p>Hip Angle Range The average of each stroke's difference between the maximum and minimum 3D included angle defined by the knee, hip, and shoulder.</p>		<p>Back from Level The average of the 3D acute included angle defined by the hip to shoulder line segment and the horizon of every body measurement index.</p>
	<p>Hip-Shoulder-Wrist/Elbow The average of the 3D included angle defined by the hip, shoulder, and elbow or wrist of each body measurement index.</p>		<p>Elbow Angle The average of the 3D included angle defined by the shoulder, elbow, and wrist of each body measurement index.</p>
	<p>Forearm from Level The average of the 3D acute included angle defined by the elbow to wrist line segment and the horizon of each body measurement index where positive angle represent the wrist higher than the elbow.</p>		<p>Knee to Foot Forward The average of each stroke's difference between the horizontal positions of the knee and foot when the foot is in the forwardmost position where a positive number represents the knee being more forward than the foot.</p>
	<p>Knee to Foot Lateral The difference of the average lateral position of the knee and foot where a negative number represents the knee being further from the plane of the bicycle than the foot.</p>		<p>Hip to Foot Lateral The average of the distances between the lateral position of the hip and foot of each body measurement index where a negative number represents the hip being further from the plane of the bicycle than the foot.</p>
	<p>Shoulder to Wrist Lateral The distance between the average lateral position of the shoulder and wrist where a negative number represents the wrist being closer to the plane of the bicycle than the shoulder.</p>		<p>Foot from Level Mean The average of the acute included angle defined by the foot to heel line segment and the horizon of every body measurement index where a negative angle represents the foot lower than the heel.</p>
	<p>Foot Float Maximum and Minimum The minimum or maximum acute included angle defined by the foot to heel line segment and the bike plane of every body measurement index where a negative angle represents the heel being closer to the plane of the bicycle than the foot.</p>		<p>Foot Float Mean The average acute included angle defined by the foot to heel line segment and the bike plane of every body measurement index where a negative angle represents the heel being closer to the plane of the bicycle than the foot.</p>





CYCLIST MEASUREMENT DEFINITIONS

KEY	DESCRIPTION/DEFINITION	KEY	DESCRIPTION/DEFINITION
	Knee Travel Tilt The acute included angle in the frontal plane between the best fit axis of the points of the knee during the recording and the vertical axis where a positive number represents the knee further from the plane of the bike at the top of the stroke.		Knee Lateral Travel The average of each stroke's difference between the maximum and minimum lateral position of the knee.
	Hip Vertical Travel The average of each stroke's difference between the maximum and minimum vertical position of the hip.		Hip Lateral Travel The average of each stroke's difference between the maximum and minimum lateral position of the hip.
	Thigh & Shin Length The average of the 3D distances between the hip and knee or knee and ankle of each body measurement index.		Hip to Wrist Vertical The average of the differences of the vertical position of the hip and wrist of each body measurement index where a positive number represents the wrist being higher than the hip.
	Hip to Elbow Vertical The average of the differences of the vertical position of the hip and elbow of each body measurement index where a positive number represents the elbow being higher than the hip.		Hip to Wrist Forward The average of the differences of the horizontal position of the hip and wrist of each body measurement index.
	Hip to Elbow Forward The average of the differences of the horizontal position of the hip and elbow of each body measurement index.		Power Output The average and maximum calculated power or user input power during the recording time.
	Front View of Knee Path A connected plot of the positions of the knee for each body measurement index viewed from in front of the bicycle. The plot is colored green during the downstroke and red during the upstroke. The blue bar represents the bike frame.		Speed The average and maximum calculated rear wheel speed during the recording time.
			Cadence The average and maximum calculated number of strokes per minute defined by the foot of every body measurement index.



PŘÍLOHA 2: Podrobný výstup z nastavování posedu metodikou Guru Fit Bike



rd

15.3.2017

CLIENT NAME:
Vit Vesely

BICYCLE SHOP NAME:
Triexpert
Argentinská

Fit Name:
rd

Date of fit:
15.3.2017

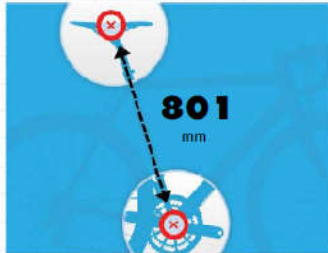
Fit Operator:
admin

Bike Type:
Road

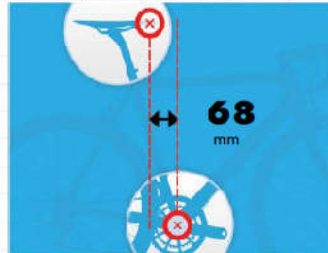
Store Name:
Triexpert
Argentinská

FIT DATA

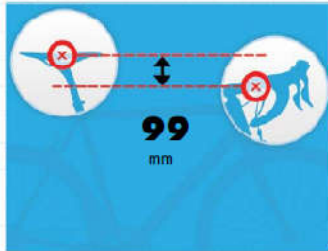
SADDLE HEIGHT OVER
BOTTOM BRACKET:



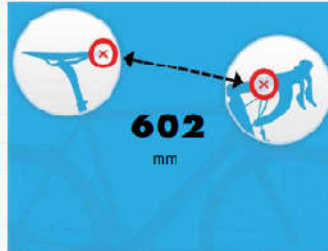
SADDLE SETBACK:



DROP FROM SADDLE
TO BARS:



REACH FROM SADDLE
TO BARS:



X/Y Data



Equipment Information



scrach

Saddle thickness (mm): 42
Saddle clamp to nose (mm): 155



SL-70

Bar width (mm): 420

Crank Length (mm): 172.5

Notes

guru

CAPTURED POSITION



MEASUREMENT INSTRUCTIONS:

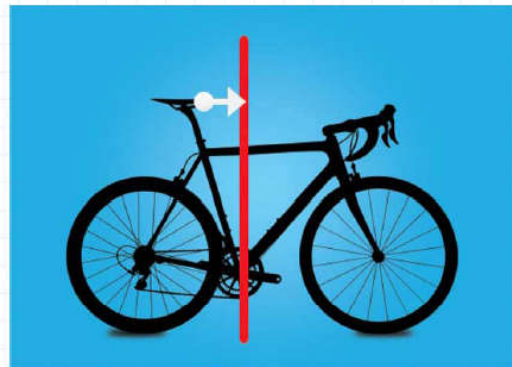
How to measure fit data coordinates

STEP 1 SADDLE HEIGHT



Measure from top of saddle at middle diagonally down to the center of the bottom bracket.

STEP 2 SADDLE SET BACK



Measure from nose of saddle horizontally to vertical laser line.

STEP 3 REACH FROM SADDLE TO BARS



Measure from nose of saddle to middle of handlebar.

STEP 4 DROP FROM SADDLE TO BARS

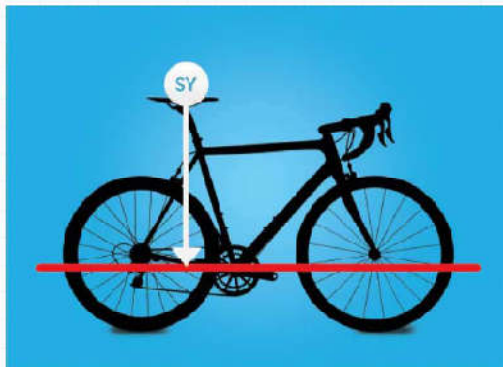


Measure from top of saddle at middle to horizontal laser line. Measure from middle of handlebar to horizontal laser line. The saddle measurement minus the handlebar measurement will equal drop.

MEASUREMENT INSTRUCTIONS:

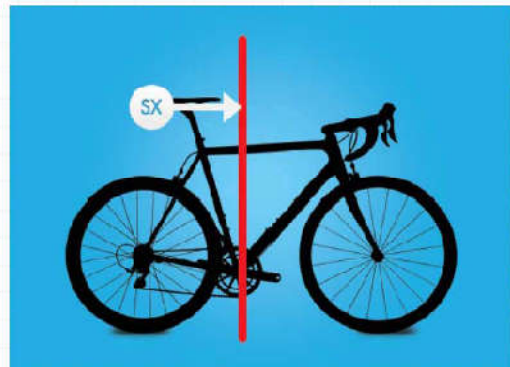
The **SX**, **SY**, **HX** and **HY** coordinates represent the saddle and handlebar coordinates from your final position based upon their position in relation to the center of the bottom bracket.

STEP 1 SY



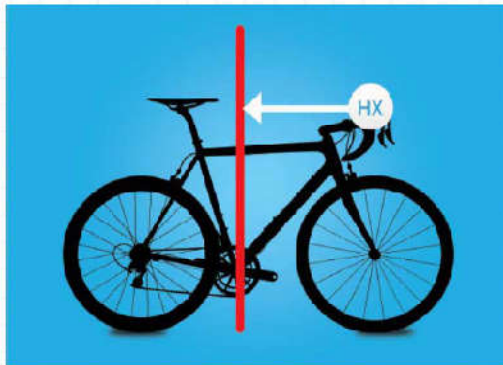
SY is the distance from middle of saddle rail to horizontal laser line.

STEP 2 SX



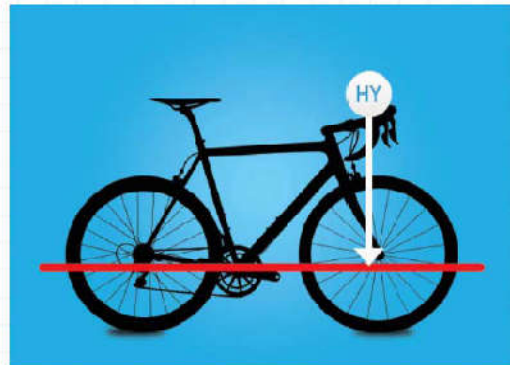
SX is the distance from middle of saddle rail to vertical laser line.

STEP 3 HX



HX is the distance from the middle of handlebar to vertical laser line.

STEP 4 HY



HY is the distance from middle of the handlebar to horizontal laser line.