

## Third Coast Training Performance Center

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### Performance diagnostics for

On , a multi-stage test was performed on bicycle ergometer. Default load step duration was 3 minutes. The maximum load step was held for the entire 3 minutes.

Performance Watt	Rel. Performance Watt/kg	Heart rate bpm	Lactate mmol/L	Cadence rpm	Energy expenditure kcal/h
(Rest)	(Rest)	67	0.30		77
100	1.30	117	0.70	90	326
130	1.69	122	1.20	90	423
160	2.09	135	2.00	90	521
190	2.48	148	4.00	90	619
220	2.87	158	6.50	90	717

### The following results are obtained for training and performance diagnostics

Performance at the so-called individual anaerobic threshold (p(IAT)): **154 Watt (2.00 W/kg body weight)**  
**156 Watts (78kg-std)**

Heart rate at p(IAT): **134 bpm**

Functional threshold power (FTP, according to Allen et al.): **183 Watt (2.38 W/kg body weight)**

Maximal oxygen uptake (VO<sub>2</sub>max, calculated): **3.09 L/min**

Rel. maximal oxygen uptake (VO<sub>2</sub>max, calculated) : **40.3 ml/min/kg body weight**

The p(IAT) (per kg) corresponds to the 12th Percentile (i.e. 12 percent are behind) compared to cyclists of your age group (Master 2) and the 66th Percentile within the entire male age group.

### Recommended training intensities:

#### Individual calculations for training intensities\*

Type of training		Performance	Rel. Performance	Heart rate	
Reg. Training	CZ	below 96 Watt	below 1.25 Watt/kg	below 116 bpm	
Extensive basic training	BT1	96 Watt - 141 Watt	1.25 Watt - 1.83 Watt/kg	117 - 128 bpm	
Intensive basic training	BT2	141 Watt - 163 Watt	1.83 Watt - 2.13 Watt/kg	129 - 136 bpm	
Threshold training	DT	163 Watt - 179 Watt	2.13 Watt - 2.33 Watt/kg	137 - 142 bpm	

\*) IMPORTANT: Training recommendations have been revised due to an atypical course of the lactate curve.

### Supplemental data for body assessment

Body height (ft.) / Body mass (lb.):

**5'6.0" / 169.1 lb.**

Body-Mass-Index (BMI):

**27.3**



## Cycling ergometry, Step duration 3 min

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## Analysis of results

16/12/2020	
Body weight	169.1 lb.
<b>Lactate Threshold (LT):</b>	
LT	103.6 Watt
Lactate at LT (Lactate Threshold)	0.73 mmol/L
Heart rate at the LT (Lactate Threshold)	118 bpm
Percentage of p(LT) to p(IAT)	67 %
<b>Individual anaerobic threshold (IAT):</b>	
IAT (Lactate constant: 1.0 mmol/L)	153.8 Watt
Percentile (p(IAT)) (General population)	65.3 %
Percentile (p(IAT)) (Speed or power sports)	52.9 %
Percentile (p(IAT)) (Bicycle racing) Master 2	7.5 %
p(IAT)/kg	2.00 Watt/kg
Percentile (p(IAT)/kg) (General population)	66.0 %
Percentile (p(IAT)/kg) (Speed or power sports)	50.4 %
Percentile (p(IAT)/kg) (Bicycle racing) Master 2	11.6 %
Lactate concentration at p(IAT)	1.73 mmol/L
Heart rate at p(IAT)	134 bpm
p(IAT) as a percentage of p(max)	70 %
Max. glyc. Power ( VLaMax )	0.31 mmol/L/s
W'	14.1
Critical Power	194.3 Watt
Performance at 2.0 mmol/L lactate	159.8 Watt
Rel. power output at 2.0 mmol/L lactate per body weight	2.08 Watt/kg
Heart rate at 2.0 mmol/L lactate	136 bpm
Performance at 3.0 mmol/L lactate	176.6 Watt
Rel. power output at 3.0 mmol/L lactate per body weight	2.30 Watt/kg
Heart rate at 3.0 mmol/L lactate	142 bpm
VO2max (estimated)	3.09 L/min
Relative VO2(max) (calculated)	40.3 ml/min/kg
Training age	not provided
Prediction for Stelvio, IT	1:37:26 h (1118 m/h VAM)

\*\*) Mountain Time Trial Stelvio, IT ([www.strava.com/segments/15397319](http://www.strava.com/segments/15397319))

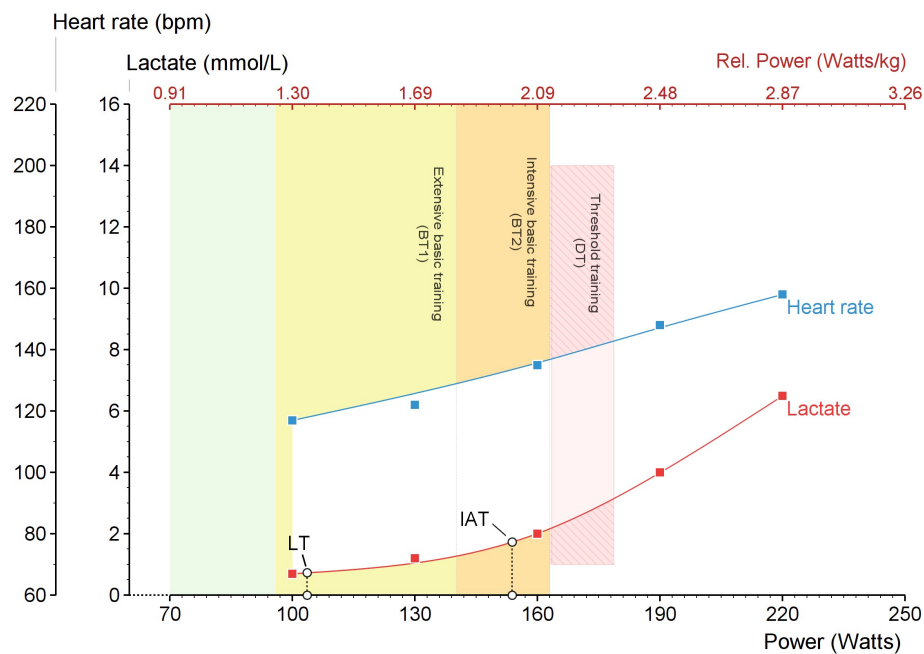
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# Performance diagnostics

Third Coast Training  
Cycling ergometry on  
Analysis for  
(Triathlon, Long distance (Ironman))

## Lactate-to-performance-curve:



## Maximum Power Profile (CP Forecast):

