

Table S1. Force-velocity potential, power-velocity potential and enthalpy efficiency averaged over the stance phase for the investigated running speeds with a modulation of the maximum shortening velocity (V_{max}) in a range of $\pm 30\%V_{max}$ ($n = 14$, mean \pm standard deviation).

	Running speed						
	3 m/s	4 m/s	5 m/s	6 m/s	7 m/s	8 m/s	8.4 \pm 0.2 m/s
Force-velocity potential *	0.53 \pm 0.05	0.48 \pm 0.06	0.45 \pm 0.06	0.40 \pm 0.05	0.33 \pm 0.05	0.30 \pm 0.04	0.28 \pm 0.03
Force-velocity potential $-10\%V_{max}$ *	0.51 \pm 0.05	0.45 \pm 0.06	0.42 \pm 0.07	0.37 \pm 0.05	0.30 \pm 0.05	0.27 \pm 0.04	0.26 \pm 0.03
Force-velocity potential $-20\%V_{max}$ *	0.48 \pm 0.05	0.42 \pm 0.06	0.39 \pm 0.07	0.34 \pm 0.06	0.27 \pm 0.05	0.24 \pm 0.04	0.23 \pm 0.03
Force-velocity potential $-30\%V_{max}$ *	0.44 \pm 0.05	0.39 \pm 0.07	0.36 \pm 0.07	0.31 \pm 0.06	0.23 \pm 0.05	0.21 \pm 0.04	0.19 \pm 0.03
Force-velocity potential $+10\%V_{max}$ *	0.56 \pm 0.05	0.50 \pm 0.06	0.47 \pm 0.06	0.43 \pm 0.05	0.35 \pm 0.05	0.33 \pm 0.04	0.31 \pm 0.03
Force-velocity potential $+20\%V_{max}$ *	0.58 \pm 0.04	0.53 \pm 0.06	0.50 \pm 0.06	0.45 \pm 0.05	0.37 \pm 0.05	0.35 \pm 0.04	0.33 \pm 0.03
Force-velocity potential $+30\%V_{max}$ *	0.60 \pm 0.04	0.55 \pm 0.06	0.52 \pm 0.06	0.47 \pm 0.05	0.40 \pm 0.05	0.37 \pm 0.04	0.36 \pm 0.03
Power-velocity potential *	0.73 \pm 0.08	0.79 \pm 0.10	0.81 \pm 0.12	0.87 \pm 0.10	0.92 \pm 0.05	0.94 \pm 0.03	0.94 \pm 0.02
Power-velocity potential $-10\%V_{max}$ *	0.75 \pm 0.09	0.81 \pm 0.10	0.82 \pm 0.12	0.88 \pm 0.10	0.91 \pm 0.05	0.94 \pm 0.03	0.93 \pm 0.03
Power-velocity potential $-20\%V_{max}$ *	0.77 \pm 0.09	0.83 \pm 0.10	0.83 \pm 0.13	0.88 \pm 0.11	0.90 \pm 0.05	0.92 \pm 0.04	0.90 \pm 0.03
Power-velocity potential $-30\%V_{max}$ *	0.78 \pm 0.10	0.84 \pm 0.11	0.82 \pm 0.14	0.87 \pm 0.12	0.86 \pm 0.06	0.88 \pm 0.05	0.86 \pm 0.04
Power-velocity potential $+10\%V_{max}$ *	0.70 \pm 0.08	0.77 \pm 0.10	0.79 \pm 0.11	0.85 \pm 0.09	0.91 \pm 0.05	0.94 \pm 0.04	0.94 \pm 0.02
Power-velocity potential $+20\%V_{max}$ *	0.68 \pm 0.07	0.75 \pm 0.09	0.78 \pm 0.11	0.84 \pm 0.09	0.91 \pm 0.05	0.94 \pm 0.04	0.94 \pm 0.03
Power-velocity potential $+30\%V_{max}$ *	0.66 \pm 0.07	0.73 \pm 0.09	0.76 \pm 0.11	0.82 \pm 0.09	0.90 \pm 0.06	0.93 \pm 0.04	0.94 \pm 0.03
Efficiency *	0.440 \pm 0.008	0.442 \pm 0.008	0.443 \pm 0.002	0.443 \pm 0.003	0.434 \pm 0.008	0.432 \pm 0.007	0.428 \pm 0.008
Efficiency $-10\%V_{max}$ *	0.443 \pm 0.005	0.443 \pm 0.006	0.443 \pm 0.002	0.440 \pm 0.004	0.427 \pm 0.012	0.423 \pm 0.010	0.418 \pm 0.011
Efficiency $-20\%V_{max}$ *	0.444 \pm 0.003	0.442 \pm 0.005	0.440 \pm 0.005	0.435 \pm 0.006	0.416 \pm 0.016	0.411 \pm 0.014	0.403 \pm 0.015
Efficiency $-30\%V_{max}$ *	0.443 \pm 0.002	0.438 \pm 0.005	0.433 \pm 0.009	0.426 \pm 0.010	0.398 \pm 0.022	0.391 \pm 0.019	0.380 \pm 0.019
Efficiency $+10\%V_{max}$ *	0.436 \pm 0.010	0.440 \pm 0.011	0.443 \pm 0.003	0.444 \pm 0.003	0.439 \pm 0.006	0.437 \pm 0.005	0.434 \pm 0.006
Efficiency $+20\%V_{max}$ *	0.431 \pm 0.012	0.437 \pm 0.013	0.442 \pm 0.005	0.444 \pm 0.004	0.442 \pm 0.004	0.441 \pm 0.004	0.439 \pm 0.005
Efficiency $+30\%V_{max}$ *	0.425 \pm 0.014	0.434 \pm 0.015	0.440 \pm 0.007	0.443 \pm 0.005	0.443 \pm 0.002	0.443 \pm 0.002	0.442 \pm 0.003

* Significant main effect of speed ($p < 0.05$).