Appendix.

1- Waist-pull magnitude definitions:

Waist-Pull Magnitudes	Displacement (cm)	Velocity ($cm.s^{-1}$)	Initial Acceleration ($cm.s^{-2}$)
1	6.8	18.0	900
2	9.0	27.0	900
3	11.3	36.0	900
4	13.5	45.0	900
5	15.8	54.0	900

2- The two-dimensional inverse dynamics equations of motion from Zatsiorsky (2002):

1) $F_i - F_{i+1} + m_i g = m_i a_i$

Where F_i and F_{i+1} are the forces acting on the distal and proximal joints of the ith body segment, m_i is the mass of the segment, g is the acceleration of gravity, and a_i is the linear acceleration of the segment center of mass.

2) $M_i - M_{i+1} + (r_i \times F_i) - (r_{i+1} \times F_{i+1}) = I_i \alpha_i$

Where M_i and M_{i+1} are the moments acting on the distal and proximal joints of the ith body segment, respectively, r_i and r_{i+1} are the radii from the segment center of mass to joint centers i and i+1, respectively, I_i is the moment of inertia relative to the segment center of mass, and α_i is the angular acceleration relative to the segment center of mass.

3- Estimated net joint power equation (Enoka, 2002; Winter, 1992):

$$Net\ joint\ power = Net\ joint\ Torque \cdot \omega$$

ω- joint angular velocity.