Segment variables (Data), definitions and unit signs

Unit signs

Positional data is always zero at address. Rotational data is the orientation of the variable(s) relative to the calibration.

Position – centimetres (cm)

Orientation (rotation) – degrees (°)

Angular velocity - degrees per second (d/s)

Linear velocity - miles per hour (mph)

Segment variables/data

Pelvis sway

Lateral positional movement of the pelvis. Relative to address, positive is towards the target, negative is away from the target.

Pelvis thrust

Forward and backward positional movement of the pelvis. Relative to address, positive is towards the ball, negative is away from the ball.

Pelvis up/down

Positional up and down movement of the pelvis. Relative to address, positive is the pelvis elevating, negative is the pelvis descending

Pelvis rotation

Rotation of the pelvis. Zero degrees is parallel to calibrated human. Positive is the pelvis anti-clockwise rotated, negative is clockwise rotated.

Pelvis side bend

Lateral flexion of the pelvis. Zero degrees is horizontal to the calibrated human. Positive is lead side of pelvis elevated, negative is trail side of pelvis elevated.

Pelvis bend

Forward and backward bend of the pelvis. Zero degrees is vertical to calibrated human. Positive is pelvis in forward bend, negative is pelvis in backward bend.

Thorax sway

Lateral positional movement of the thorax. Relative to address, positive is towards the target, negative is away from the target.

Thorax thrust

Lateral positional movement of the thorax. Relative to address, positive is towards the target, negative is away from the target.

Thorax up/down

Lateral positional movement of the thorax. Relative to address, positive is towards the target, negative is away from the target.

Thorax rotation

Rotation of the thorax. Zero degrees is parallel to the calibrated human. Positive is the thorax anti-clockwise rotated, negative is clockwise rotated.

Thorax side bend

Lateral flexion of the thorax. Zero degrees is horizontal to the calibrated human. Positive is lead side of thorax elevated, negative is trail side of thorax elevated.

Thorax bend

Forward and backward bend of the thorax. Zero degrees is vertical to the calibrated human. Positive is thorax in forward bend, negative is thorax in backward bend.

Head sway

Lateral positional movement of the head. Relative to address, positive is towards the target, negative is away from the target.

Head thrust.

Forward/backward positional movement of the head. Relative to address, positive is towards the ball, negative is away from the ball.

Head up/down

Positional up and down movement of the head. Relative to address, positive is the head elevating, negative is the head descending.

Head rotation

Rotation of the head. Zero degrees is parallel to the calibrated human. Positive is the head anti clockwise rotated, negative is clockwise rotated.

Head side bend

Lateral flexion of the head. Zero degrees is horizontal to the calibrated human. Positive is lead side of head elevated, negative is trail side of head elevated.

Head bend

Forward and backward bend of the head. Zero degrees is vertical to the calibrated human. Positive is the head in forward bend, negative is head in backward bend.

Hand sway

Lateral positional movement of the hands. Relative to address, positive is towards the target, negative is away from the target.

Hand path

Forward and backward positional movement of the hands. Relative to address, positive is towards the ball, negative is away from the ball.

Hand up/down

Positional up and down movement of the hands. Relative to address, positive is the pelvis elevating, negative is the pelvis descending.

Lead shoulder H Ad/Ab

The horizontal orientation of the humerus relative to the thorax rotation. Positive is when the humerus is horizontally abducted relative to the humerus, negative is when the humerus is horizontally adducted relative to the humerus.

Lead shoulder Flexion

The flexion/extension of the humerus relative to the thorax bend. Positive is when the humerus is flexed relative to the thorax, negative is when the humerus is extended relative to the humerus.

Trail shoulder H Ad/Ab

The horizontal orientation of the humerus relative to the thorax rotation. Positive is when the humerus is horizontally abducted relative to the humerus, negative is when the humerus is horizontally adducted relative to the humerus.

Trail shoulder Flexion

The flexion/extension of the humerus relative to the thorax bend. Positive is when the humerus is flexed relative to the thorax, negative is when the humerus is extended relative to the humerus.

Lead hand linear speed

The linear speed of the lead hand. This value can only be positive.

Pelvis angular velocity

The rotational peak velocity of the pelvis in the downswing.

Thorax angular velocity

The rotational peak velocity of the thorax in the downswing.

Lead arm angular velocity

The rotational peak velocity of the lead arm in the downswing.

Lead hand angular velocity

The rotational peak velocity of the lead hand in the downswing.

Thorax-lead arm stretch

The peak amount of lead arm adduction produced in the downswing.

Pelvis rate of elevation

This is the rate the pelvis elevates at in the downswing. The rate of elevation is measuring the rate the pelvis up/down value changes at in the downswing phase.