Forward Stride Analysis

Prepared for:

Knowledge π Ability π Excellence
At the beginning of the glide phase, the glide leg should have a knee flexion angle of 90°.
At the beginning of the glide phase, the glide leg ankle should have a dorsiflexion angle of 70°.
The propulsion skate should be recovered back onto the ice in line with the knee, hip and shoulder.
The maximum hip abduction angle of the propulsion leg at the end of the DSP Phase should be 45°.
The maximum hip extension angle of the propulsion leg at the end of the DSP Phase should be 45° to the posterior side of the coronal plane.
The maximum knee extension angle of the propulsion leg at the end of the DSP Phase should be 170°. The power range of the knee is between 130° and 170°.
7 – DSP Phase Maximum Plantarflexion Angle

Optimal - 110°

At the end of the DSP Phase the ankle plantarflexion angle should 110°.
The torso forward lean angle should be between 30° and 45° above a plane parallel to the ice and should remain constant throughout all three phases of the stride.
At the end of the DSP Phase the optimal maximum shoulder rotation angle (about the coronal plane) should be 30º.
Image 1 and 2 show shoulder abduction approaching 90° in both the stick and non-stick sides. Image 3 shows the upper arm of the abducted shoulder in line with the shoulders not behind them. Note the bend in the stick-side elbow in 2 to keep the stick in a good hockey position.
Image 1 shows the shoulder fully adducted with the non-stick hand and lower arm directly opposed to the propulsion leg. Image 2 shows a similar action with the stick arm with the exception that the hand is further from the body to keep the stick in a better hockey position. Image 3 shows the hand of the adducted shoulder in line with the skate, knee, hip and shoulder of the glide skate.