Maxwell's Stress Tensor

1. (a) Determine the force per unit length for parallel constant currents (magnitude and direction) separated by distance r using the traditional method

$$\vec{F} = I \int d\vec{l} \times \vec{B}$$

   (b) Consider two equal currents parallel to the x-axis (currents in the same direction) which run through the points $(0, a, 0)$ and $(0, -a, 0)$. Determine the force per unit length on the upper wire (magnitude and direction) using the Maxwell Stress-Tensor.