This is not a tough one, but you need the definition of $\dot{H}^s_x(\mathbb{R}^d)$. $\dot{H}^s_x(\mathbb{R}^d)$ can be defined as the closure of $\mathcal{S}(\mathbb{R}^d)$ in the norm $||f||^2_{\dot{s}} = \int_{\mathbb{R}^d} |\xi|^{2s}|\hat{f}(\xi)|^2 d\xi$. This norm has some good and some bad properties. One of the good properties is that for $f_\lambda(x) = f(\lambda x),\ \lambda > 0$, one has $||f_\lambda||_{\dot{s}} = \lambda^{(s-d/2)}||f||_{\dot{s}}$. One of the bad ones is that $||f||_{L^2(\mathbb{R}^d)}$ is never bounded by $||f||_{\dot{s}}$ for $s > 0$, while this is trivially true for the ordinary Sobolev norm $||f||_s$.