Let $\varphi$ be an analytic function from $\mathbb{D}$ to itself. Then, the composition operator $C_\varphi$, with symbol $\varphi$, is defined by $C_\varphi f = f \circ \varphi$ for $f$ in a Hilbert space of analytic functions on $\mathbb{D}$. In 2008, Hammond, Moorhouse, and Robbins gave an explicit formula for the adjoint $C_\varphi^*$ in the Hardy space. If $\varphi$ is not univalent, it is well known that the kernel of $C_\varphi^*$ is infinite dimensional. In this talk, I will show how their formula leads to a classification of functions in $\ker C_\varphi^*$ for certain classes of symbols $\varphi$. (Received August 25, 2015)