Let $X$ be a K3 surface over a number field $k$. It is well known that the Brauer group of $X_{\overline{k}}$ is isomorphic to $(\mathbb{Q}/\mathbb{Z})^{\rho}$ with $1 \leq \rho \leq 19$. In contrast, Skorobogatov and Zarhin showed in 2008 that the quotient $\text{Br} X/\text{Br} k$ is always finite. We consider the problem of whether $\#(\text{Br} X/\text{Br} k)$ is bounded by a constant depending only on the number field $k$ and the geometric Picard group of $X$. (Received September 22, 2015)