Let $\overline{G}$ be a simple connected linear algebraic group over an algebraically closed field $\overline{\mathbb{F}}_p$ of positive characteristic $p$ and $\sigma$ a Steinberg endomorphism. There is a $\sigma$-invariant maximal torus $\overline{T}$ of $\overline{G}$ and all maximal tori are conjugate to $\overline{T}$ in $\overline{G}$. Moreover, the quotient $N_{\overline{G}}(\overline{T})/\overline{T}$ is isomorphic to the Weyl group of $\overline{G}$.

**Problem 1.** *Describe groups $\overline{G}$, in which $N_{\overline{G}}(\overline{T})$ splits over $\overline{T}$.*

A similar question arises in finite groups of Lie type. Namely, let $T = \overline{T} \cap G$ be a maximal torus of $G$, $N = N_{\overline{G}}(\overline{T}) \cap G$ an algebraic normalizer. Notice that $N \leqslant N_G(T)$, but the equality is not true in general.

**Problem 2.** *Describe groups $G$ and their tori $T$, in which $N$ splits over $T$.*

We obtain answers to these problems for symplectic groups.