S. To this end, we offer a computation and a proof, as follows.

1. Let $l_x \subset \mathbb{P}^3$ be a generic line of the complex X — which we will assume is not tangent to S — and consider the locus $l_x \cap S$.

⌈ $\tilde{\phi} : G(2,4) \longrightarrow G \subset \mathbb{P}^5$

$\tilde{\phi}^{-1}(G \cap F) = \tilde{\phi}^{-1}(X) \ni l_x \Rightarrow l_x \subset \mathbb{P}^3$ and $S \subset \mathbb{P}^3$.

We will assume that S is not tangent to l_x. ⌋

For every point $p \in l_x \cap S$, the line l_x will be an element of one or both of the two pencils in our complex with focus p; in other words, x will lie on one or both of the lines of $F \cap \sigma(p)$.

⌈ $p \in l_x \cap S \Rightarrow X_p = F \cap \sigma(p)$ is a singular conic curve, and $x \in F \cap \sigma(p)$.

Assume that $F \cap \sigma(p) = 2l. \Rightarrow 2l \ni 2x \Rightarrow F \cap \sigma(p) \ni x$ with multiplicity $2. \Rightarrow l_x \cap S \ni p$ with multiplicity 2, for $x_1, x_2 \in F \cap \sigma(p)$

$\Rightarrow l_{x_1} \cap S \ni p \quad l_{x_2} \cap S \ni p. \Rightarrow x_1 \longrightarrow x_2.$

$l_{x_1} \longrightarrow l_{x_2} \Leftarrow\Rightarrow$ Thus $F \cap \sigma(p) = l_1 \cup l_2 \Rightarrow x \in l_1 \cap l_2$ or $x \in l_1$ or l_2, which implies that l_x is tangent to S. ⌋