For spin $3/2$ the minimal possible projection is $-3/2$.

State $|S, M\rangle = |\frac{3}{2}, -\frac{3}{2}\rangle$ can be expressed in terms of the eigenstates of S_1^2 and S_2^2 as follows:

$$|\tfrac{3}{2}, -\tfrac{3}{2}\rangle = \sum_{m_1+m_2=M} \underbrace{\langle 2\, \tfrac{1}{2}\, m_1\, m_2 | \tfrac{3}{2}, -\tfrac{3}{2}\rangle}_{\text{Clebsch-Gordan coeff.}} \underset{S_1}{\underset{\parallel}{|2\, m_1\rangle}} \underset{S_2}{\underset{\parallel}{|\tfrac{1}{2}\, m_2\rangle}}$$

There are only two terms in this sum:

$m_1 = -2 \quad m_2 = \frac{1}{2}$ and $m_1 = -1 \quad m_2 = -\frac{1}{2}$, so when we look up the corresponding coefficients in the table provided we have

$$|\tfrac{3}{2}, -\tfrac{3}{2}\rangle = -\sqrt{\tfrac{4}{5}}\, |2, -2\rangle |\tfrac{1}{2}, \tfrac{1}{2}\rangle + \sqrt{\tfrac{1}{5}}\, |2, -1\rangle |\tfrac{1}{2}, -\tfrac{1}{2}\rangle$$

Hence, we can see that the probabilities of the two possible z-components of the first particle's spin are:

$$P(m_1 = -2) = \left|-\sqrt{\tfrac{4}{5}}\right|^2 = \frac{4}{5}$$

$$P(m_1 = -1) = \left|\sqrt{\tfrac{1}{5}}\right|^2 = \frac{1}{5}$$