At scales that are not accessible by direct searches at the LHC, precision measurements of CP violating observables in the mixing and decay of B mesons may reveal new physics through loop corrections. A good candidate for such indirect searches is the measurement of the CP violating phase $\phi_s$ which arises in the interference between the amplitudes of $B_s$ meson decaying directly and after oscillation via $b \to c \bar{s}s$ transitions. This talk will cover recent measurements of $\phi_s$ from $B_s \to J/\psi h h$ and $D_s D_s$ decays at LHCb. Additionally, estimates of possible penguin contributions which are assumed to be zero in SM predictions will be discussed.