In this thesis, we study the 1/H-variations of stochastic integrals, where the integrators are the fractional Brownian motion and Rosenblatt process (with the Hurst parameter H> 1/2). The considered stochastic integrals are defined as the Skorokhod integrals within the framework of Malliavin calculus. We summarize the already established results about the 1/H-variation of the integral with respect to the fractional Brownian motion and then apply the techniques used therein to obtain the form of the 1/H-variation of the integral with respect to the Rosenblatt process.