Magnetic reconnection is a fundamental process that changes magnetic field configuration and converts a magnetic energy to flow energy and plasma heating. It can be found in a plasma with frozen magnetic field lines at boundaries where different magnetic field topologies encounter each other and thin current sheets are created as it is typical in the solar wind. In the thesis, we have used spacecraft measurements of solar wind plasma and magnetic field to found magnetic reconnection exhausts. We analyze and compare them with theoretical predictions. The results of the statistical analysis oriented on re-distribution of the magnetic energy in reconnection showed that both a portion of the energy deposited into heat as well as the energy spent on an acceleration of the exhaust plasma increase with the magnetic shear angle in accord with the increase of the magnetic flux available for reconnection. Moreover, we identify unusual events in the solar wind; we found magnetic reconnection exhausts accompanied by one or two side jets and explained their possible causes.