Simulations of a stiff rotor configuration of the DTU 10MW Reference Wind Turbine are performed in order to assess the impact of prescribed flap motion on the aerodynamic loads on a blade sectional and rotor integral level. Results of the engineering models used by DTU (HAWC2), TUDelft (Bladed) and NTUA (hGAST) are compared to the CFD predictions of USTUTT-IAG (FLOWer). Results show fairly good comparison in terms of axial loading, while alignment of tangential and drag-related forces across the numerical codes needs to be improved, together with unsteady corrections associated with rotor wake dynamics. The use of a new wake model in HAWC2 shows considerable accuracy improvements.