

ABSTRACT

A flange fastening skill determination apparatus includes: a receiver configured to receive output signals that are outputted from respective tightening force detectors when a testee performs work of tightening a plurality of bolts that are tightened for connecting flanges together, the tightening force detectors being individually provided corresponding to the plurality of respective bolts; a measurer configured to obtain a plurality of measurement results, the measurement results indicating transition of change in each of the output signals received by the receiver from a start to an end of the work of tightening a corresponding one of the plurality of bolts; a calculator configured to obtain a first calculation result, a second calculation result, and a third calculation result, each as a skill determining item, by performing calculation on the plurality of measurement results, the first calculation result indicating variation among output signal values of the respective tightening force detectors during the work of tightening the plurality of bolts, the second calculation result indicating variation among output signal values of the respective tightening force detectors at a time of completion of the work of tightening the plurality of bolts, the third calculation result indicating a degree of tightening force of each of the plurality of bolts at the time of completion of the work of tightening the plurality of bolts; a determiner configured to determine, based on results of comparing the skill determining items with determination criteria, to which one of three or more skill levels a skill of the testee in the work of tightening the bolts corresponds; and an output device configured to output a result of the determination performed by the determiner.