pressure (= actual surface pressure) to which the gasket is actually subjected under the influence of the state in which the bolt and the flange are tightened is as follows:

estimated surface pressure ≠ actual surface pressure.

Even if the measurement accuracy of the torque value and the axial force value is increased, the estimated surface pressure and the actual surface pressure on the gasket do not match. The surface pressure to which the gasket is subjected cannot be perceived.

[0012] Regarding such issues, the inventor has obtained findings that a change in the shape of a gasket depends on a load applied from between flanges and it is beneficial to observe the shape change in order to control the gasket tightening. Patent Literatures 1 to 3 do not disclose or suggest such issues. The configuration disclosed in Patent Literatures 1 to 3 cannot solve such issues.

[0013] Therefore, an object of the present disclosure is to observe a change in the shape of a gasket that is subjected to a load between flanges and to use the observation result for the gasket tightening control based on the issues and findings described above.

Solution to Problem

Summary

[0014] In order to achieve the above object, a control method according to one aspect of the present disclosure includes a step of applying a load to a gasket restrained between flanges, and a step of observing a shape change occurring in the gasket due to the load, in which tightening of the gasket is controlled based on the shape change.

[0015] In the control method, the shape change includes at least one or both of a change occurring in the gasket in an interval direction between the flanges and a change occurring in a crossing direction with respect to the interval direction.