

Title (en)

METHOD FOR MONITORING GASKET COMPRESSION DURING FASTENER TENSIONING.

Title (de)

VERFAHREN ZUM ÜBERWACHEN DER DICHTUNGSKOMPRIMIERUNG WÄHREND DES SPANNENS EINES BEFESTIGUNGSELEMENTES.

Title (fr)

PROCEDE DE CONTROLE DE LA COMPRESSION D'UN JOINT D'ETANCHEITE PENDANT LE SERRAGE D'UN ORGANE DE FIXATION.

Publication

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Application

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Priority

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Abstract (en)

[origin: WO9101198A1] A method is described for tensioning large bolts (16) used in securing covers (12) for openings in pressure vessels, pipe couplings, valves and the like, in which a sealing gasket (18) is used. The method is designed to prevent leakage in gasketed connections by monitoring the interaction of bolt tension and gasket compression. The method is particularly concerned with determining the bolt tension at which full gasket compression is achieved. This allows the user to verify proper gasket density, proper gasket seating, and proper bolt preload. The method involves measuring changes in a dimension (E) related to gasket compression as bolt tension (F) is increased. Full gasket compression to a metal compression stop is noted as a sharp change in the ratio DELTA E/ DELTA F. A secondary method of identifying the point of full gasket compression utilizing acoustic transmission is described. The secondary method may be used to verify the results of the first method.

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