

BOUNDARY ELEMENT METHOD APLIED IN THEORETICAL STUDY OF JOURNAL BEARINGS

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ABSTRACT

In this paper, a boundary element cavitation algorithm is utilized to predict cavitation in journal bearings with axially variable clearance. The procedure effectively eliminates the phenomenon of solution oscillation experienced by finite difference cavitation algorithms and caused by unadaptable grid shape and density. It also eliminates the discontinuous derivative of the fractional film content.

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