

# ISO 7902-1:2013-11 (E)

## Hydrodynamic plain journal bearings under steady-state conditions - Circular cylindrical bearings - Part 1: Calculation procedure

---

<b>Contents</b>		<b>Page</b>
<b>Foreword</b> .....		<b>iv</b>
<b>1</b>	<b>Scope</b> .....	<b>1</b>
<b>2</b>	<b>Normative references</b> .....	<b>1</b>
<b>3</b>	<b>Basis of calculation, assumptions, and preconditions</b> .....	<b>1</b>
<b>4</b>	<b>Calculation procedure</b> .....	<b>3</b>
<b>5</b>	<b>Symbols and units</b> .....	<b>5</b>
<b>6</b>	<b>Definition of symbols</b> .....	<b>6</b>
<b>6.1</b>	<b>Load-carrying capacity</b> .....	<b>6</b>
<b>6.2</b>	<b>Frictional power loss</b> .....	<b>9</b>
<b>6.3</b>	<b>Lubricant flow rate</b> .....	<b>10</b>
<b>6.4</b>	<b>Heat balance</b> .....	<b>11</b>
<b>6.5</b>	<b>Minimum lubricant film thickness and specific bearing load</b> .....	<b>13</b>
<b>6.6</b>	<b>Operational conditions</b> .....	<b>14</b>
<b>6.7</b>	<b>Further influencing factors</b> .....	<b>15</b>
<b>Annex A (normative) Calculation examples</b> .....		<b>17</b>
<b>Bibliography</b> .....		<b>32</b>