

# ISO/TR 10771-2:2008-12 (E)

## Hydraulic fluid power - Fatigue pressure testing of metal pressure-containing envelopes - Part 2: Rating methods

---

<b>Contents</b>	<b>Page</b>
Foreword .....	iv
Introduction .....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	2
4 Selection of material factors .....	2
5 Determination of cyclic test pressure .....	2
6 Conduct of fatigue test .....	3
7 Rating by similarity .....	4
8 Rating declaration .....	4
9 Identification statement (reference to this part of ISO 10771) .....	4
Annex A (informative) Material factor database .....	5
A.1 Values of coefficient of variation, $k_o$ , for commonly used metals .....	5
A.2 Procedures used to establish values of coefficient of variation, $k_o$ , for the metals listed in Table A.1 .....	5
Annex B (normative) Calculation of variability factor KV .....	13
B.1 General .....	13
B.2 Method .....	13
Annex C (informative) Proposal for an acceleration factor .....	15
C.1 General .....	15
C.2 Extrapolating data to 107 cycles .....	15
C.3 Examples .....	19
Annex D (informative) Basis of fatigue pressure rating [9] .....	21
D.1 Basis of pressure rating .....	21
D.2 Statistical analysis theory .....	22
D.3 Fatigue distribution data .....	28
D.4 Data calculation example .....	33
D.5 Raw data points for sample problem .....	39
Bibliography .....	40