

ISO 7507-1:2003-12 (E)

Petroleum and liquid petroleum products - Calibration of vertical cylindrical tanks - Part 1: Strapping method

| Contents | | Page |
|--|--|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 2 |
| 4 | Precautions | 5 |
| 5 | Equipment | 6 |
| 6 | General requirements | 7 |
| 7 | Circumference measurements | 7 |
| 8 | Other measurements on tank shell plates | 10 |
| 9 | Deadwood | 10 |
| 10 | Tank bottoms | 11 |
| 11 | Measurement of tilt | 11 |
| 12 | Floating-roof tanks | 11 |
| 13 | Recalibration | 12 |
| 14 | Computation of tank capacity tables -- General rules | 12 |
| 15 | Form of tank capacity tables | 13 |
| 16 | Computation of open capacity | 13 |
| 17 | Construction of final tables | 17 |
| Annex A (normative) Specification for equipment used in strapping | | 23 |
| Annex B (informative) Recommendations for monitoring, checking and verification of tank calibration and capacity table | | 26 |
| Annex C (informative) Tank calibration data and calculation sheet | | 32 |
| Annex D (informative) Tank calibration uncertainties | | 36 |
| Annex E (informative) Tank shell temperature determination | | 47 |
| Annex F (normative) Gauge tape temperature correction | | 48 |

| | |
|---|-----------|
| Annex G (informative) Expansion due to liquid head | 50 |
| Annex H (normative) Expansion due to temperature | 58 |
| Annex I (normative) Certificate of calibration | 61 |
| Bibliography | 62 |