

DIN EN 500-4:2010-03 (E)

Mobile road construction machinery - Safety - Part 4: Specific requirements for compaction machines (includes Amendment A1:2009)

| Contents | | Page |
|---|--|-------------|
| Foreword | | 4 |
| Introduction | | 5 |
| 1 Scope | | 6 |
| 2 Normative references | | 6 |
| 3 Terms and definitions | | 7 |
| 4 List of significant hazards | | 8 |
| 5 Safety requirements and/or protective measures | | 8 |
| 5.1 Lighting, signalling and marking lights and reflex-reflector devices | | 8 |
| 5.2 Operation and handling | | 8 |
| 5.3 Operator's station | | 10 |
| 5.4 Operator's seat | | 10 |
| 5.5 Controls and indicators | | 10 |
| 5.6 Starting | | 10 |
| 5.7 Stopping | | 10 |
| 5.8 Access system to operator's station and to maintenance points | | 11 |
| 5.9 Hand-guards on explosion rammers | | 12 |
| 5.10 Roll-over protective structure (ROPS) | | 12 |
| 5.11 Noise and vibration | | 13 |
| 6 Verification of safety requirements and/or protective measures | | 13 |
| 7 Information for the user | | 14 |
| 7.1 Warning signals and devices | | 14 |
| 7.2 Instruction handbook | | 14 |
| 7.3 Marking | | 14 |
| Annex A (normative) Remote infrared controls for rollers with attending operator | | 16 |
| Annex B (normative) Noise test code for hand-guided and remote-controlled vibratory ground compaction machines | | 19 |
| Annex C (normative) Measurement of the hand-arm vibration of hand-guided vibratory ground compaction machines | | 30 |
| Annex D (normative) Noise test code for rollers for ride-on operation | | 36 |
| Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EC Directive 98/37/EC | | 41 |
| Annex ZB (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC" | | 42 |
| Bibliography | | 43 |
| Figures Figure 1 -- Vertical swinging of single-drum walk-behind rollers | | 9 |

| | |
|--|----|
| Figure 2 -- Position of the safety device at pedestrian-controlled rollers | 9 |
| Figure 3 -- Minimum clearance of lower limbs at access to the operator's station on machines with articulated steering | 12 |
| Figure 4 -- Deflection-limiting volume, front view, side view | 13 |
| Figure !B.1" -- Arrangement of test positions for hand-guided machines | 20 |
| Figure !B.2" -- Arrangement of test positions for remote-controlled machines | 21 |
| Figure !B.3" -- Grading-size diagram of the material to be compacted (gravel) | 25 |
| Figure !B.4" -- Test site and arrangement with test track | 26 |
| Figure !C.1" -- Directions of measurement and examples for attachment of the acceleration transducer | 32 |
| Figure !C.2" -- Arrangement of the coupling device on the drawbar | 33 |
| Figure !D.1" -- Basic length L | 37 |
| Figure !D.2" -- Microphone positions | 37 |
| Tables Table !B.1" -- Coordinates of microphones | 22 |
| Table !B.2" -- Operating conditions | 27 |
| Table !B.3" -- Uncertainties | 27 |