

DIN EN 859:2012-09 (E)

Safety of woodworking machines - Hand fed surface planing machines (includes Amendment A2:2012)

| Contents | | Page |
|--------------------|--|-------------|
| Foreword | | 4 |
| Introduction | | 5 |
| 1 | Scope | 6 |
| 2 | Normative references | 6 |
| 3 | Terms and definitions | 8 |
| 3.1 | General | 8 |
| 3.2 | Definitions | 8 |
| 3.3 | Terms | 10 |
| 4 | List of significant hazards | 12 |
| 5 | Safety requirements and/or measures | 14 |
| 5.1 | General | 14 |
| 5.2 | Controls | 14 |
| 5.2.1 | Safety and reliability of control systems | 14 |
| 5.2.2 | Position of controls | 15 |
| 5.2.3 | Starting | 15 |
| 5.2.4 | Normal stopping | 16 |
| 5.2.5 | Emergency stop | 17 |
| 5.2.6 | Failure of the power supply | 17 |
| 5.2.7 | Failure of the control circuit | 17 |
| 5.3 | Protection against mechanical hazards | 18 |
| 5.3.1 | Stability | 18 |
| 5.3.2 | Hazard of break up during operation | 18 |
| 5.3.3 | Cutterblock holder and cutterblock design | 18 |
| 5.3.4 | Braking | 18 |
| 5.3.5 | Work piece supports and guides | 19 |
| 5.3.6 | Prevention of access to moving parts | 23 |
| 5.3.7 | Characteristics of guards | 27 |
| 5.3.8 | Safety appliances | 27 |
| 5.4 | Protection against non-mechanical hazards | 28 |
| 5.4.1 | Fire | 28 |
| 5.4.2 | Noise | 28 |
| 5.4.3 | Emission of chips and dust | 29 |
| 5.4.4 | Electricity | 30 |
| 5.4.5 | Ergonomics and handling | 31 |
| 5.4.6 | Pneumatics | 32 |
| 5.4.7 | Hydraulics | 32 |
| 5.4.8 | Electromagnetic compatibility | 32 |
| 5.4.9 | Supply disconnection (isolation) | 32 |
| 5.4.10 | Static electricity | 33 |
| 5.4.11 | Maintenance | 33 |
| 6 | Information for use | 33 |
| 6.1 | General | 33 |
| 6.2 | Marking | 33 |
| 6.3 | Instruction handbook | 34 |

| | |
|--|-----------|
| Annex A (normative) Tests for bridge type guards for surface planing machines | 38 |
| A.1 General | 38 |
| A.2 Compression test | 38 |
| A.3 Shock test | 38 |
| A.4 Strength test | 38 |
| Annex B (normative) Table lip resistance test | 40 |
| B.1 General | 40 |
| B.2 Work piece | 40 |
| B.3 Measurements | 43 |
| B.4 Test | 43 |
| B.5 Result | 44 |
| Annex C (normative) Stability test for displaceable machines | 45 |
| Annex D (normative) Impact test method for guards | 46 |
| D.1 General | 46 |
| D.2 Test method | 46 |
| D.2.1 Preliminary remarks | 46 |
| D.2.2 Testing equipment | 46 |
| D.2.3 Projectile for guards | 46 |
| D.2.4 Sampling | 46 |
| D.2.5 Test procedure | 47 |
| D.3 Results | 47 |
| D.4 Assessment | 47 |
| D.5 Test report | 47 |
| D.6 Test equipment for impact test | 47 |
| Annex E (normative) Braking tests | 51 |
| E.1 Conditions for all tests | 51 |
| E.2 #####Un-braked\$\$\$\$ run-down time | 51 |
| E.3 Braked run-down time | 51 |
| Annex ZA (informative) !Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC"""""" | 53 |
| Bibliography | 56 |