

ISO 10821:2005-07 (E)

Industrial sewing machines - Safety requirements for sewing machines, units and systems

Contents	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	3
4 Significant hazards	5
4.1 General	5
4.2 Mechanics	5
4.3 Electricity/Control	6
4.4 Thermal hazards	6
4.5 Noise	6
4.6 Radiation	6
4.7 Ergonomics	7
4.8 Special hazards	7
4.9 Danger zones	8
5 Safety measures and requirements	15
5.1 General principles	15
5.2 Requirements for all types of industrial sewing machines	15
5.2.1 Mechanical equipment	15
5.2.2 Electrical equipment/control/control gear	18
5.2.3 Thermal requirements	20
5.2.4 Noise	20
5.2.5 Radiation	21
5.2.6 Ergonomics	22
5.3 Specific requirements for particular types of industrial sewing machines	22
5.3.1 Button, buttonhole and programmable pattern sewing machines, bartacking machines	22
5.3.2 Quilting machines	23
5.3.3 Bag closing sewing machines in the packaging industry	23
5.3.4 Embroidery machines	23
5.3.5 Glove sewing machines	24
5.3.6 Sewing machines for shoe repair	24
5.3.7 Blindstitch sewing machines	24
5.3.8 Linking machines	24
6 Verification of safety requirements or measures	24
7 Information on use and maintenance	26
7.1 General	26
7.2 Marking	26
7.3 Warning of residual risk	27
7.4 Instructions	27
7.4.1 General information	27
7.4.2 Particular information	28
Annex A (normative) Finger deflecting device	29

Annex B (normative) Warning of residual risk	32
Annex C (normative) Noise test code	35
Annex D (normative) Needle breakage protection shield	50
Annex E (normative) Belt guard at sewing machine drive (motor)	51
Annex F (informative) Safe fastening of belt pulley at drive shaft of clutch or positioning drives	53
Annex G (informative) Safe mounting of adaptable positioner/synchronizer at sewing machine shaft	60
Annex H (informative) Safe mounting of sewing machine drives	61
Annex I (informative) Noise declaration examples	66
Annex J (informative) Examples of noise reduction measures at the design stage	69
Annex K (normative) Written warning -- Languages	70
Annex L (informative) Ergonomic principles	74
Bibliography	75