

ISO 19225:2017-05 (E)

Underground mining machines - Mobile extracting machines at the face - Safety requirements for shearer loaders and plough systems

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	List of significant hazards	3
5	Safety requirements and/or protective measures	5
5.1	General	5
5.2	Contact surfaces	5
5.2.1	Sharp corners and edges	5
5.2.2	Hot surfaces	6
5.3	Stability	6
5.4	Control devices and systems	7
5.4.1	General requirements	7
5.4.2	Safety and reliability of control systems	8
5.4.3	Design of control systems	8
5.4.4	Failure of power supply	10
5.4.5	Remote control	10
5.4.6	Radio control	10
5.4.7	Automatic control	11
5.4.8	Measures to prevent inadvertent movements	12
5.5	Falling objects and ejected material	13
5.6	Dust control	13
5.6.1	General	13
5.6.2	Dust reduction	13
5.6.3	Dust suppression	13
5.7	Noise	13
5.7.1	General	13
5.7.2	Noise reduction at the source at the design stage	14
5.8	Electrical requirements	14
5.8.1	General	14
5.8.2	Control of electrical power supply	14
5.8.3	Monitoring of circuits	14
5.8.4	Cables	15
5.8.5	Bonding	15
5.8.6	Lighting	15
5.9	Mechanical requirements	15
5.9.1	General	15
5.9.2	Chains	15
5.9.3	Gearboxes	16
5.10	Hydraulic systems and water systems	16
5.10.1	Hydraulic systems	16
5.10.2	Water systems	16
5.11	Fire protection	17
5.12	Load attachment points	17

5.13	Maintenance and repair	17
6	Verification of the safety requirements and/or protective measures	18
7	Information for use	19
7.1	General	19
7.2	Signals and warning devices	19
7.3	Accompanying documents	20
7.3.1	General	20
7.3.2	Information for transportation, handling and storage	20
7.3.3	Information for assembly and commissioning	20
7.3.4	Information about the machine	20
7.3.5	Information for operational use	20
7.3.6	Information on maintenance and repairs	21
7.3.7	Information for decommissioning, dismantling and disposal	21
7.3.8	Information for emergencies	22
7.4	Marking	22
	Annex A (normative) Noise test code	23
	Bibliography	26