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 Termsanddefinitions 2

4 Listofsignificanthazards 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 Verificationofthesafetyrequirementsand/orprotectivemeasures 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