

accidental movement of the machine when parked.

(g) A headlight and red light-reflecting material shall be provided on both front and rear of each mobile transportation unit that travels at a speed greater than 2.5 miles per hour. Red light-reflecting material should be provided on each end of other mobile machines.

**§ 18.21 Machines equipped with powered dust collectors.**

Powered dust collectors on machines submitted for approval shall meet the applicable requirements of Part 33 of this chapter (Bureau of Mines Schedule 25B), and shall bear the approval number assigned by MSHA.

**§ 18.22 Boring-type machines equipped for auxiliary face ventilation.**

Each boring-type continuous-mining machine that is submitted for approval shall be constructed with an unobstructed continuous space(s) of not less than 200 square inches total cross-sectional area on or within the machine to which flexible tubing may be attached to facilitate auxiliary face ventilation.

**§ 18.23 Limitation of external surface temperatures.**

The temperature of the external surfaces of mechanical or electrical components shall not exceed 150 °C. (302 °F.) under normal operating conditions.

**§ 18.24 Electrical clearances.**

Minimum clearances between uninsulated electrical conductor surfaces, or between uninsulated conductor surfaces and grounded metal surfaces, within the enclosure shall be as follows:

MINIMUM CLEARANCES BETWEEN UNINSULATED SURFACES

Phase-to-Phase Voltage (rms)	Clearances (inches)	
	Phase-to-Phase	Phase-to-Ground or Control Circuit
0 to 250 .....	0.25	0.25
251 to 600 .....	0.28	0.25
601 to 1000 .....	0.61	0.25
1001 to 2400 .....	1.4	0.6
2401 to 4160 .....	3.0	1.4

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**§ 18.25 Combustible gases from insulating material.**

(a) Insulating materials that give off flammable or explosive gases when decomposed electrically shall not be used within enclosures where the materials are subjected to destructive electrical action.

(b) Parts coated or impregnated with insulating materials shall be heat-treated to remove any combustible solvent(s) before assembly in an explosion-proof enclosure. Air-drying insulating materials are excepted.

**§ 18.26 Static electricity.**

Nonmetallic rotating parts, such as belts and fans, shall be provided with a means to prevent an accumulation of static electricity.

**§ 18.27 Gaskets.**

A gasket(s) shall not be used between any two surfaces forming a flame-arresting path except as follows:

(a) A gasket of lead, elastomer, or equivalent will be acceptable provided the gasket does not interfere with an acceptable metal-to-metal joint.

(b) A lead gasket(s) or equivalent will be acceptable between glass and a hard metal to form all or a part of a flame-arresting path.

**§ 18.28 Devices for pressure relief, ventilation, or drainage.**

(a) Devices for installation on explosion-proof enclosures to relieve pressure, ventilate, or drain will be acceptable provided the length of the flame-arresting path and the clearances or size of holes in perforated metal will prevent discharge of flame in explosion tests.

(b) Devices for pressure relief, ventilation, or drainage shall be constructed of materials that resist corrosion and distortion, and be so designed that they can be cleaned readily. Provision shall be made for secure attachment of such devices.

(c) Devices for pressure relief, ventilation, or drainage will be acceptable for application only on enclosures with which they are explosion tested.