

§ 75.523-3

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§ 75.523-3 Automatic emergency-parking brakes.

(a) Except for personnel carriers, rubber-tired, self-propelled electric haulage equipment used in the active workings of underground coal mines shall be equipped with automatic emergency-parking brakes in accordance with the following schedule.

(1) On and after May 23, 1989—

(i) All new equipment ordered; and

(ii) All equipment originally furnished with or retrofitted with automatic emergency-parking brakes which meet the requirements of this section.

(2) On and after May 23, 1991, all other equipment.

(b) Automatic emergency-parking brakes shall—

(1) Be activated immediately by the emergency deenergization device required by 30 CFR 75.523-1 and 75.523-2;

(2) Engage automatically within 5.0 seconds when the equipment is deenergized;

(3) Safely bring the equipment when fully loaded to a complete stop on the maximum grade on which it is operated;

(4) Hold the equipment stationary despite any contraction of brake parts, exhaustion of any non-mechanical source of energy, or leakage; and

(5) Release only by a manual control that does not operate any other equipment function.

(c) Automatic emergency-parking brakes shall include a means in the equipment operator's compartment to—

(1) Apply the brakes manually without deenergizing the equipment; and

(2) Release and reengage the brakes without energizing the equipment.

(d) On and after November 24, 1989, rubber-tired, self-propelled electric face equipment not covered by paragraph (a) of this section shall be equipped with a means incorporated on the equipment and operable from each tramming station to hold the equipment stationary—

(1) On the maximum grade on which it is operated; and

(2) Despite any contraction of components, exhaustion of any non-mechanical source of energy, or leakage.

(e) The brake systems required by paragraphs (a) or (d) of this section

shall be applied when the equipment operator is not at the controls of the equipment, except during movement of disabled equipment.

[54 FR 12412, Mar. 24, 1989]

§ 75.524 Electric face equipment; electric equipment used in return air outby the last open crosscut; maximum level of alternating or direct electric current between frames of equipment.

The maximum level of alternating or direct electric current that exists between the frames of any two units of electric face equipment that come in contact with each other in the working places of a coal mine, or between the frames of any two units of electric equipment that come in contact with each other in return air outby the last open crosscut, shall not exceed one ampere as determined from the voltage measured across a 0.1 ohm resistor connected between the frames of such equipment.

[38 FR 29998, Oct. 31, 1973]

APPENDIX A TO SUBPART F OF PART 75—
LIST OF PERMISSIBLE ELECTRIC
FACE EQUIPMENT APPROVED BY THE
BUREAU OF MINES PRIOR TO MAY 23,
1936

Motor-Driven Mine Equipment
(Approved Under Schedules 2, 2A, 2B, and 2C)

Approval No.	Date
AIR COMPRESSORS	
128	March 21, 1927.
128A	July 16, 1926.
COAL DRILLS AND DRILLING MACHINES	
<i>Hand Drills</i>	
109	September 19, 1922.
154	August 1, 1928.
184	February 7, 1930.
227	July 29, 1931.
254	July 15, 1933.
<i>Post Drills</i>	
119	April 15, 1925.
119A	Do.
225	July 10, 1931.
225A	Do.
228	August 12, 1931.
228A	February 17, 1932.
230	August 20, 1931.
230A	Do.
237	December 1, 1931.
237A	Do.

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(Approved Under Schedules 2, 2A, 2B, and 2C)

Approval No.	Date
<i>Drilling Machines</i>	
147	February 8, 1928.
147A	Do.
176	September 9, 1929.
176A	Do.
LOADING AND CONVEYING EQUIPMENT	
LOADING MACHINES	
<i>Unmounted Type</i>	
122	January 8, 1926.
122A	Do.
<i>Caterpillar-Mounted Type</i>	
150	May 11, 1928.
186	March 15, 1930.
222	May 8, 1931.
222A	July 28, 1931.
229	August 17, 1931.
229A	Do.
235	November 27, 1931.
235A	October 29, 1931.
278	January 17, 1935.
278A	Do.
283A	March 12, 1935.
284A	Do.
285A	Do.
294	September 18, 1935.
300A	May 6, 1936.
127	July 16, 1926.
127A	September 23, 1927.
<i>Track-Mounted Type</i>	
194	June 6, 1930.
194A	Do.
217	February 27, 1931.
217A	Do.
276	January 11, 1935.
277	January 17, 1935.
282A	March 12, 1935.
291A	July 3, 1935.
<i>Pit-Car Loaders</i>	
167	March 27, 1929.
167A	Do.
175	July 26, 1929.
175A	June 24, 1929.
250	December 10, 1932.
250A	Do.
252A	February 20, 1933.
CONVEYORS	
<i>Belt Type</i>	
236	November 19, 1931.
287A	March 12, 1935.
296A	January 6, 1936.
<i>Chain Type</i>	
151	May 19, 1928.
209	December 2, 1930.
240	March 12, 1932.
240A	Do.
298A	March 3, 1936.

Motor-Driven Mine Equipment
(Approved Under Schedules 2, 2A, 2B, and 2C)

Approval No.	Date
<i>Power Units for Conveyors</i>	
265	February 12, 1934.
265A	March 19, 1934.
390A	March 23, 1934.
<i>Shaker Type</i>	
247	October 21, 1932.
257A	August 11, 1933.
262A	December 8, 1933.
271	May 20, 1935.
271A	October 17, 1934.
274A	December 13, 1934.
286A	March 12, 1935.
295	September 20, 1935.
299A	April 9, 1936.
<i>Scraper-type Loaders</i>	
138	August 5, 1927.
138A	Do.
196	September 29, 1930.
196A	July 26, 1930.
226	July 27, 1931.
255	July 31, 1933.
256	Do.
MINING MACHINES, MACHINERY-MOVING EQUIPMENT, MISCELLANEOUS TRUCKS, AND WATER SPRAY SUPPLY UNITS	
MINING MACHINES	
<i>Shortwall Machines</i>	
103	November 2, 1917.
103A	Do.
105	February 9, 1922.
105A	Do.
106	Do.
106A	Do.
107	Do.
107A	Do.
108	Do.
108A	Do.
111	October 16, 1922.
111A	Do.
113	November 4, 1924.
113A	Do.
114	February 7, 1925.
114A	Do.
115	Do.
115A	Do.
153	July 31, 1928.
153A	Do.
193	June 3, 1930.
193A	Do.
197	July 31, 1930.
197A	Do.
198	August 1, 1930.
198A	Do.
201	September 8, 1930.
201A	Do.
204	October 13, 1930.
204A	December 13, 1930.
223	May 13, 1931.
223A	Do.
241	March 18, 1932.
241A	Do.
258	August 15, 1933.
259A	August 16, 1933.
260A	August 17, 1933.
273	November 30, 1934.

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Motor-Driven Mine Equipment
(Approved Under Schedules 2, 2A, 2B, and 2C)

Approval No.	Date
288	March 27, 1935.
288A	Do.
292	September 11, 1935.
292A	Do.
293A	Do.
<i>Longwall Machines</i>	
185	February 24, 1930.
185A	Do.
218	March 10, 1931.
218A	Do.
246	August 19, 1932.
246A	Do.
261	September 12, 1933.
<i>Track or caterpillar mounted</i>	
112	March 13, 1924.
112A	Do.
118	March 12, 1925.
118A	Do.
125	April 26, 1926.
125A	Do.
172	April 30, 1929.
172A	Do.
188	April 15, 1930.
188A	Do.
207	November 14, 1930.
207A	Do.
216	February 12, 1931.
216A	Do.
231	August 31, 1931.
231A	Do.
242	April 7, 1932.
244	June 18, 1932.
244A	September 20, 1932.
253A	February 25, 1933.
267	June 27, 1934.
268A	July 25, 1934.
269A	September 24, 1934.
280A	March 4, 1935.
297	January 27, 1936.
297A	Do.
<i>Mine Pumps</i>	
140	November 1, 1927.
140A	Do.
143	Do.
143A	Do.
144	Do.
144A	Do.
199	August 18, 1930.
199A	Do.
208	November 29, 1930.
210	December 15, 1930.
210A	Do.
211	December 17, 1930.
211A	Do.
213	December 29, 1930.
213A	Do.
214	January 2, 1931.
214A	Do.
215	Do.
215A	Do.
248	October 31, 1932.
248A	November 23, 1932.
264	January 31, 1934.
264A	Do.
272	October 23, 1934.
272A	Do.

Motor-Driven Mine Equipment
(Approved Under Schedules 2, 2A, 2B, and 2C)

Approval No.	Date
<i>Rock-Dusting Machines</i>	
130	November 5, 1926.
137	July 2, 1927.
146	January 20, 1928.
146A	April 3, 1928.
180	October 30, 1929.
180A	January 17, 1930.
206	November 12, 1930.
279	February 14, 1935.
<i>Room and Car-Spotting Hoists</i>	
116	February 13, 1925.
116A	Do.
164	January 21, 1931.
164A	Do.
165	Do.
165A	Do.
169	April 5, 1929.
169A	February 26, 1934.
190	April 20, 1930.
251A	January 16, 1933.
263	January 11, 1934.
266A	February 27, 1934.
STORAGE-BATTERY LOCOMOTIVES AND POWER TRUCKS (Approved under Schedules 15, 2C, 2D, and 2E)	
<i>Gathering Locomotives</i>	
1501	October 11, 1921.
1502	November 13, 1922.
1503	March 24, 1923.
1505	April 5, 1924.
1507	August 20, 1925.
1508	March 21, 1925.
1509	September 25, 1925.
1511	November 10, 1925.
1512	November 11, 1925.
1513	February 25, 1926.
1516	December 28, 1926.
1517	February 10, 1927.
1520	May 27, 1929.
1521	June 13, 1930.
1522	September 12, 1930.
1523	December 19, 1930.
1525	July 25, 1934.
1526	December 20, 1935.
<i>Tandem Locomotive</i>	
1518	November 21, 1927.
<i>Power Trucks</i>	
1506	May 5, 1924.
1505A	June 21, 1926.
1510C	December 31, 1926.
1514	December 18, 1926.
1515	December 28, 1926.
1512C	September 13, 1928.
1519C	April 6, 1929.
1524C	June 25, 1934.
JUNCTION, DISTRIBUTION, AND SPLICE BOXES (Approved under Schedules 2D and 2E)	
<i>Junction Boxes</i>	
400	June 16, 1928.
400A	August 5, 1925.
401	May 11, 1927.

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Motor-Driven Mine Equipment
(Approved Under Schedules 2, 2A, 2B, and 2C)

Approval No.	Date
401A	Do.
402	Do.
402A	Do.
403	April 14, 1931.
403A	Do.
405A	December 4, 1933.

Subpart G—Trailing Cables

§ 75.600 Trailing cables; flame resistance.

[STATUTORY PROVISIONS]

Trailing cables used in coal mines shall meet the requirements established by the Secretary for flame-resistant cables.

§ 75.600-1 Approved cables; flame resistance.

Cables shall be accepted or approved by MSHA as flame resistant.

[57 FR 61223, Dec. 23, 1992]

§ 75.601 Short circuit protection of trailing cables.

[STATUTORY PROVISIONS]

Short circuit protection for trailing cables shall be provided by an automatic circuit breaker or other no less effective device approved by the Secretary of adequate current-interrupting capacity in each ungrounded conductor. Disconnecting devices used to disconnect power from trailing cables shall be plainly marked and identified and such devices shall be equipped or designed in such a manner that it can be determined by visual observation that the power is disconnected.

§ 75.601-1 Short circuit protection; ratings and settings of circuit breakers.

Circuit breakers providing short circuit protection for trailing cables shall be set so as not to exceed the maximum allowable instantaneous settings specified in this section; however, higher settings may be permitted by an authorized representative of the Secretary when he has determined that special applications are justified:

Conductor size AWG or MGM	Maximum allowable circuit breaker instantaneous setting (amperes)
14	50
12	75
10	150
8	200
6	300
4	500
3	600
2	800
1	1,000
1/0	1,250
2/0	1,500
3/0	2,000
4/0	2,500
250	2,500
300	2,500
350	2,500
400	2,500
450	2,500
500	2,500

§ 75.601-2 Short circuit protection; use of fuses; approval by the Secretary.

Fuses shall not be employed to provide short circuit protection for trailing cables unless specifically approved by the Secretary.

§ 75.601-3 Short circuit protection; dual element fuses; current ratings; maximum values.

Dual element fuses having adequate current-interrupting capacity shall meet the requirements for short circuit protection of trailing cables as provided in § 75.601, however, the current ratings of such devices shall not exceed the maximum values specified in this section:

Conductor size (AWG or MGM)	Single conductor cable		Two conductor cable	
	Ampacity	Max. fuse rating	Ampacity	Max. fuse rating
14			15	15
12			20	20
10			25	25
8	60	60	50	50
6	85	90	65	70
4	110	110	90	90
3	130	150	105	110
2	150	150	120	125
1	170	175	140	150
1/0	200	200	170	175
2/0	235	250	195	200
3/0	275	300	225	225
4/0	315	350	260	300
250	350	350	285	300
300	395	400	310	350
350	445	450	335	350
400	480	500	360	400
450	515	600	385	400
500	545	600	415	450