

Symbol	Typ	Titel
E	Sektion	FIXED CONSTRUCTIONS
E21	Untersektion	EARTH OR ROCK DRILLING; MINING
E21	Klasse	EARTH OR ROCK DRILLING; MINING
E21F	Unterklasse	SAFETY DEVICES, TRANSPORT, FILLING-UP, RESCUE, VENTILATION, OR DRAINAGE IN OR OF MINES OR TUNNELS [2]
		<u>Ventilation of mines or tunnels</u>
E21F 1/00	Hauptgruppe	Ventilation of mines or tunnels; Distribution of ventilating currents (ventilating rooms or spaces in general F24F) [2]
E21F 1/02	1-Punkt Untergruppe	. Test models (analogue computers therefor G06G 7/50)
E21F 1/04	1-Punkt Untergruppe	. Air ducts (suspension devices E21F 17/02)
E21F 1/06	2-Punkt Untergruppe	. . Duct connections (tube connections in general F16L)
E21F 1/08	1-Punkt Untergruppe	. Ventilation arrangements in connection with air ducts, e.g. arrangements for mounting ventilators (ventilators per se F04D)
E21F 1/10	1-Punkt Untergruppe	. Air doors (doors in general E06B)
E21F 1/12	2-Punkt Untergruppe	. . Devices for automatically opening air doors
E21F 1/14	1-Punkt Untergruppe	. Air partitions; Air locks (dams E21F 17/103; air locks for foundations E02D) [6]
E21F 1/16	1-Punkt Untergruppe	. Shaft covers
E21F 1/18	1-Punkt Untergruppe	. Gravity-flow ventilation (E21F 1/02 to E21F 1/16 take precedence) [2]
E21F 3/00	Hauptgruppe	Cooling or drying of air (air-conditioning rooms or spaces in general F24F)
		<u>Safety devices (flue-gas indicators G01N); Rescue devices</u>
E21F 5/00	Hauptgruppe	Means or methods for preventing, binding, depositing, or removing dust; Preventing explosions or fires (dams E21F 17/103; applying liquids or other fluent materials to surfaces in general B05) [6]
E21F 5/02	1-Punkt Untergruppe	. by wetting or spraying
E21F 5/04	2-Punkt Untergruppe	. . Spraying barriers (spray nipples, spraying in general B05B , B05D; picks with arrangement of fluid-spraying nozzles E21C 35/187)
E21F 5/06	2-Punkt Untergruppe	. . Fluids used for spraying
E21F 5/08	1-Punkt Untergruppe	. Rock dusting; Depositing other protective substances
E21F 5/10	2-Punkt Untergruppe	. . Devices for rock dusting
E21F 5/12	2-Punkt Untergruppe	. . Composition of rock dust
E21F 5/14	1-Punkt Untergruppe	. Fluid barriers or rock dusters made to work by, or at the same time as, shots or explosions
E21F 5/16	1-Punkt Untergruppe	. Layers of hygroscopic or other salts deposited on floors, walls, or the like, for binding dust; Deposition of such layers (dust-absorbing materials in general C09K 3/22)
E21F 5/18	1-Punkt Untergruppe	. Impregnating walls, or the like, with liquids for binding dust
E21F 5/20	1-Punkt Untergruppe	. Drawing-off or depositing dust (methods or apparatus for flushing boreholes E21B 21/00 ; while slitting E21C 35/22) [1, 7]
E21F 7/00	Hauptgruppe	Methods or devices for drawing-off gases with or without subsequent use of the gas for any purpose
E21F 9/00	Hauptgruppe	Devices preventing sparking of machines or apparatus (preventing sparking of electric machines

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		or apparatus H01K , H02K)
E21F 11/00	Hauptgruppe	Rescue devices or other safety devices, e.g. safety chambers, escape ways (breathing aids for curative purposes A61H 31/00; respiratory apparatus A62B 7/00; revival apparatus A62B 33/00)
E21F 13/00	Hauptgruppe	Transport specially adapted to underground conditions (mine cars B61D; transport in general, loading B65G)
E21F 13/02	1-Punkt Untergruppe	. in galleries
E21F 13/04	1-Punkt Untergruppe	. in gravity inclines; in staple or inclined shafts
E21F 13/06	1-Punkt Untergruppe	. at or adjacent to the working face
E21F 13/08	1-Punkt Untergruppe	. Shifting conveyers or other transport devices from one location at the working face to another (guiding mining machines along conveyers for the cut mineral E21C 35/12; in combination with mine roof supports for step-by-step movement E21D 23/00)
E21F 13/10	1-Punkt Untergruppe	. Anchorings for conveyers [2]
E21F 15/00	Hauptgruppe	Methods or devices for placing filling-up materials in underground workings (dams E21F 17/103) [6]
E21F 15/02	1-Punkt Untergruppe	. Supporting means, e.g. shuttering, for filling-up materials
E21F 15/04	2-Punkt Untergruppe	. . Stowing mats; Goaf wire netting; Partition walls
E21F 15/06	1-Punkt Untergruppe	. Filling-up mechanically
E21F 15/08	1-Punkt Untergruppe	. Filling-up hydraulically or pneumatically (hydraulic or pneumatic transport devices B65G; pipes, pipe couplings F16L)
E21F 15/10	2-Punkt Untergruppe	. . Hydraulic or pneumatic filling-up machines
E21F 16/00	Hauptgruppe	Drainage (keeping dry foundation sites or other areas in the ground E02D 19/00) [2]
E21F 16/02	1-Punkt Untergruppe	. of tunnels [2]
E21F 17/00	Hauptgruppe	Methods or devices for use in mines or tunnels, not covered elsewhere (mine lighting F21 , H05B) [2]
E21F 17/02	1-Punkt Untergruppe	. Suspension devices for tubes or the like, e.g. for ventilating ducts (supporting pipes, cables or protective tubing in general F16L 3/00 to F16L 7/00)
E21F 17/04	1-Punkt Untergruppe	. Distributing means for power supply [2]
E21F 17/06	2-Punkt Untergruppe	. . Distributing electric power; Cable networks; Conduits for cables (circuit arrangements for supplying or distributing electric power in general H02J)
E21F 17/08	2-Punkt Untergruppe	. . Distributing hydraulic power; Pipe networks for hydraulic liquid (pipe-line systems in general F17D)
E21F 17/10	2-Punkt Untergruppe	. . Distributing pneumatic power; Pipe networks for compressed air (pipe-line systems in general F17D)
E21F 17/103	1-Punkt Untergruppe	. Dams, e.g. for ventilation [6]
E21F 17/107	2-Punkt Untergruppe	. . inflatable [6]
E21F 17/12	2-Punkt Untergruppe	. . Dam doors
E21F 17/16	1-Punkt Untergruppe	. Modification of mine passages or chambers for storage purposes, especially for liquids or gases (storing fluids in natural or artificial cavities or chambers in the earth B65G 5/00)
E21F 17/18	1-Punkt Untergruppe	. Special adaptations of signalling or alarm devices (for elevators, escalators or moving walkways B66B; gas-sensitive devices per se G01N)