Symbol	Typ	Titel
B	**Sektion**	**SECTION B — PERFORMING OPERATIONS; TRANSPORTING**
B23	**Klasse**	**MACHINE TOOLS; METAL-WORKING NOT OTHERWISE PROVIDED FOR (punching, perforating, making articles by processing sheet metal, tubes, or profiles B21D; wire-working B21F; making pins, needles, or nails B21G; making chains B21L; grinding B24)**
B23P	**Unterklasse**	**OTHER WORKING OF METAL; COMBINED OPERATIONS; UNIVERSAL MACHINE TOOLS (arrangements for copying or controlling B23Q)**
B23P 5/00	**Hauptgruppe**	**Setting gems or the like on metal parts, e.g. diamonds on tools**
B23P 6/00	**Hauptgruppe**	**Restoring or reconditioning objects (straightening or restoring form of sheet metal, metal rods, metal tubes, metal profiles, or specific articles made therefrom B21D 1/00, B21D 3/00; repairing defective or damaged objects by casting techniques B22D 19/10; procedures or apparatus covered by a single other subclass, see the relevant subclass) [3]**
B23P 6/02	1-Punkt Untergruppe	. Pistons or cylinders [3]
B23P 6/04	1-Punkt Untergruppe	. Repairing fractures or cracked metal parts or products, e.g. castings [3]
B23P 9/00	**Hauptgruppe**	**Treating or finishing surfaces mechanically, with or without calibrating, primarily to resist wear or impact, e.g. smoothing or roughening turbine blades or bearings (treatment covered by a single other subclass, see the relevant subclass, e.g. B24C, C21D 7/00, C22F 1/00); Features of such surfaces not otherwise provided for, their treatment being unspecified**
B23P 9/02	1-Punkt Untergruppe	. Treating or finishing by applying pressure, e.g. knurling (B23P 9/04 takes precedence)
B23P 9/04	1-Punkt Untergruppe	. Treating or finishing by hammering or applying repeated pressure
B23P 11/00	**Hauptgruppe**	**Connecting or disconnecting metal parts or objects by metal-working techniques, not otherwise provided for (connecting sheet metal or metal tubes, rods or profiles B21D 39/00; riveting B21J; soldering, unsoldering, welding B23K; hand tools for connecting wire or strip B25B 25/00; connecting metal parts by adhesives F16B 11/00) [1, 7]**
B23P 11/02	1-Punkt Untergruppe	. by first expanding and then shrinking or vice versa, e.g. by using pressure fluids; by making force fits
B23P 13/00	**Hauptgruppe**	**Making metal objects by operations essentially involving machining but not covered by a single other subclass (making specific objects B23P 15/00)**
B23P 13/02	1-Punkt Untergruppe	. in which only the machining operations are important
B23P 13/04	1-Punkt Untergruppe	. involving slicing of profiled material
B23P 15/00	**Hauptgruppe**	**Making specific metal objects by operations not covered by a single other subclass or a group in this subclass**
B23P 15/02	1-Punkt Untergruppe	. turbine or like blades from one piece
B23P 15/04	1-Punkt Untergruppe	. turbine or like blades from several pieces
B23P 15/06	1-Punkt Untergruppe	. piston rings from one piece
B23P 15/08	1-Punkt Untergruppe	. piston rings from several pieces
B23P 15/10	1-Punkt Untergruppe	. pistons
B23P 15/12	1-Punkt Untergruppe	. gratings
B23P 15/14	1-Punkt Untergruppe	. gear parts, e.g. gear wheels
B23P 15/16	1-Punkt Untergruppe	. plates with holes of very small diameter e.g. for spinning or burner nozzles
B23P 15/18	1-Punkt Untergruppe	. brake shoes

Symbol	Typ	Titel
B23P 15/20	1-Punkt Untergruppe	. railroad requirements, e.g. buffers
B23P 15/22	1-Punkt Untergruppe	. cartridges or like shells
B23P 15/24	1-Punkt Untergruppe	. dies (B21C 3/18, B21C 25/10, B21D 37/20 take precedence)
B23P 15/26	1-Punkt Untergruppe	. heat exchangers
B23P 15/28	1-Punkt Untergruppe	. cutting tools (sawing tools B23D 63/00, B23D 65/00; files or rasps B23D 73/00)
B23P 15/30	2-Punkt Untergruppe	. . lathes or like tools
B23P 15/32	2-Punkt Untergruppe	. . twist-drills
B23P 15/34	2-Punkt Untergruppe	. . milling cutters
B23P 15/36	3-Punkt Untergruppe	. . . for thread cutting
B23P 15/38	2-Punkt Untergruppe	. . planing or slotting tools (B23P 15/30 takes precedence)
B23P 15/40	2-Punkt Untergruppe	. . shearing tools
B23P 15/42	2-Punkt Untergruppe	. . broaching tools
B23P 15/44	2-Punkt Untergruppe	. . scraping or shaving tools
B23P 15/46	2-Punkt Untergruppe	. . reaming tools
B23P 15/48	2-Punkt Untergruppe	. . threading tools (milling cutters for thread-cutting B23P 15/36)
B23P 15/50	3-Punkt Untergruppe	. . . dies
B23P 15/52	3-Punkt Untergruppe	. . . taps
B23P 17/00	**Hauptgruppe**	**Metal-working operations, not covered by a single other subclass or another group in this subclass**
B23P 17/02	1-Punkt Untergruppe	. Single metal-working processes; Machines or apparatus therefor
B23P 17/04	1-Punkt Untergruppe	. characterised by the nature of the material involved or the kind of product independently of its shape
B23P 17/06	2-Punkt Untergruppe	. . Making steel wool or the like
B23P 19/00	**Hauptgruppe**	**Machines for simply fitting together or separating metal parts or objects, or metal and non-metal parts, whether or not involving some deformation; Tools or devices therefor so far as not provided for in other classes (hand tools in general B25) [3]**
B23P 19/02	1-Punkt Untergruppe	. for connecting objects by press fit or for detaching same (B23P 19/10 takes precedence) [1, 7]
B23P 19/027	2-Punkt Untergruppe	. . using hydraulic or pneumatic means (B23P 19/033 takes precedence) [7]
B23P 19/033	2-Punkt Untergruppe	. . using vibration [7]
B23P 19/04	1-Punkt Untergruppe	. for assembling or disassembling parts (B23P 19/10 takes precedence) [1, 7]
B23P 19/06	2-Punkt Untergruppe	. . Screw or nut setting or loosening machines
B23P 19/08	2-Punkt Untergruppe	. . Machines for placing washers, circlips, or the like on bolts or other members
B23P 19/10	1-Punkt Untergruppe	. Aligning parts to be fitted together [7]
B23P 19/12	2-Punkt Untergruppe	. . Alignment of parts for insertion into bores [7]
B23P 21/00	**Hauptgruppe**	**Machines for assembling a multiplicity of different parts to compose units, with or without preceding or subsequent working of such parts, e.g. with programme control**

Symbol	Typ	Titel
B23P 23/00	**Hauptgruppe**	**Machines or arrangements of machines for performing specified combinations of different metal-working operations not covered by a single other subclass (combined horizontal boring and milling machines B23B 39/02; if the particular kinds of operation are not essential B23Q 37/00-B23Q 41/00; features relating to operations covered by a single subclass, see the relevant subclass for the operation)**
B23P 23/02	1-Punkt Untergruppe	. Machine tools for performing different machining operations (lathes, e.g. capstan lathes, B23B)
B23P 23/04	1-Punkt Untergruppe	. for both machining and other metal-working operations
B23P 23/06	1-Punkt Untergruppe	. Metal-working plant comprising a number of associated machines or apparatus
B23P 25/00	**Hauptgruppe**	**Auxiliary treatment of workpieces, before or during machining operations, to facilitate the action of the tool or the attainment of a desired final condition of the work, e.g. relief of internal stress**