

| Symbol           | Typ                 | Titel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <b>B</b>         | <b>Sektion</b>      | <b>PERFORMING OPERATIONS; TRANSPORTING</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>B21</b>       | <b>Untersektion</b> | <b>SHAPING</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>B21</b>       | <b>Klasse</b>       | <b>MECHANICAL METAL-WORKING WITHOUT ESSENTIALLY REMOVING MATERIAL; PUNCHING METAL (casting, powder metallurgy B22; shearing B23D; working of metal by the action of a high concentration of electric current B23H; soldering, welding, flame-cutting B23K; other working of metal B23P; punching sheet material in general B26F; processes for changing of physical properties of metals C21D , C22F; electroforming C25D 1/00)</b>                                                                   |
| <b>B21K</b>      | <b>Unterklasse</b>  | <b>MAKING FORGED OR PRESSED PRODUCTS, e.g. HORSE-SHOES, RIVETS, BOLTS, WHEELS (making particular articles by working sheet metal without essentially removing material B21D; processing wire B21F; making pins, needles or nails B21G; making particular articles by rolling B21H; forging machines, pressing machines, hammering machines, in general B21J; making chains B21L; plating B23K)</b><br><b><u>Making particular articles by forging, pressing, or hammering; Equipment therefor</u></b> |
| <b>B21K 1/00</b> | <b>Hauptgruppe</b>  | <b>Making machine elements</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| B21K 1/02        | 1-Punkt Untergruppe | . balls, rolls, or rollers, e.g. for bearings                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| B21K 1/04        | 1-Punkt Untergruppe | . ball-races                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| B21K 1/05        | 1-Punkt Untergruppe | . cages for bearings [2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| B21K 1/06        | 1-Punkt Untergruppe | . axles or shafts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| B21K 1/08        | 2-Punkt Untergruppe | . . crankshafts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| B21K 1/10        | 2-Punkt Untergruppe | . . of cylindrical form                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| B21K 1/12        | 2-Punkt Untergruppe | . . of specially-shaped cross-section                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| B21K 1/14        | 1-Punkt Untergruppe | . fittings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| B21K 1/16        | 2-Punkt Untergruppe | . . parts of pipe or hose couplings                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| B21K 1/18        | 1-Punkt Untergruppe | . pistons or plungers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| B21K 1/20        | 1-Punkt Untergruppe | . valve parts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| B21K 1/22        | 2-Punkt Untergruppe | . . poppet valves, e.g. for internal-combustion engines                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| B21K 1/24        | 2-Punkt Untergruppe | . . valve bodies; valve seats                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| B21K 1/26        | 1-Punkt Untergruppe | . housings or supporting parts, e.g. axle housings, engine mountings                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| B21K 1/28        | 1-Punkt Untergruppe | . wheels; discs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| B21K 1/30        | 2-Punkt Untergruppe | . . with gear-teeth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| B21K 1/32        | 2-Punkt Untergruppe | . . discs, e.g. disc wheels                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| B21K 1/34        | 2-Punkt Untergruppe | . . wheels with spokes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| B21K 1/36        | 2-Punkt Untergruppe | . . with blades                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| B21K 1/38        | 2-Punkt Untergruppe | . . rims; tyres                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| B21K 1/40        | 2-Punkt Untergruppe | . . hubs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| Symbol           | Typ                 | Titel                                                                                                           |
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| B21K 1/42        | 2-Punkt Untergruppe | . . pulleys, e.g. cable pulleys                                                                                 |
| B21K 1/44        | 1-Punkt Untergruppe | . bolts, studs, or the like (making screw-thread B21K 1/56; making U-bolts B21K 1/74)                           |
| B21K 1/46        | 2-Punkt Untergruppe | . . with heads                                                                                                  |
| B21K 1/48        | 3-Punkt Untergruppe | . . . Machines working with hammers, e.g. beating in a radial direction, for forming heads                      |
| B21K 1/50        | 3-Punkt Untergruppe | . . . Trimming or shearing formed heads, e.g. working with dies                                                 |
| B21K 1/52        | 2-Punkt Untergruppe | . . double-ended, e.g. with heads on both ends (forming heads B21K 1/46)                                        |
| B21K 1/54        | 2-Punkt Untergruppe | . . with grooves or notches                                                                                     |
| B21K 1/56        | 1-Punkt Untergruppe | . screw-threaded elements [2]                                                                                   |
| B21K 1/58        | 1-Punkt Untergruppe | . rivets                                                                                                        |
| B21K 1/60        | 2-Punkt Untergruppe | . . hollow or semi-hollow rivets                                                                                |
| B21K 1/62        | 2-Punkt Untergruppe | . . special rivets, e.g. with electrical contacts                                                               |
| B21K 1/64        | 1-Punkt Untergruppe | . nuts (making screw-thread B21K 1/56)                                                                          |
| B21K 1/66        | 2-Punkt Untergruppe | . . from strip bars                                                                                             |
| B21K 1/68        | 2-Punkt Untergruppe | . . from round or profiled bars                                                                                 |
| B21K 1/70        | 2-Punkt Untergruppe | . . of special shape, e.g. self-locking nuts, wing nuts                                                         |
| B21K 1/72        | 1-Punkt Untergruppe | . hooks, e.g. crane hooks, railway track spikes (making nails in general B21G)                                  |
| B21K 1/74        | 1-Punkt Untergruppe | . forked members or members with two or more limbs, e.g. U-bolts, anchors                                       |
| B21K 1/76        | 1-Punkt Untergruppe | . elements not mentioned in one of the preceding groups                                                         |
| <b>B21K 3/00</b> | <b>Hauptgruppe</b>  | <b>Making engine or like machine parts not covered by subgroups of B21K 1/00; Making propellers or the like</b> |
| B21K 3/02        | 1-Punkt Untergruppe | . cylinder heads                                                                                                |
| B21K 3/04        | 1-Punkt Untergruppe | . blades, e.g. for turbines; Upsetting of blade roots                                                           |
| <b>B21K 5/00</b> | <b>Hauptgruppe</b>  | <b>Making tools or tool parts, e.g. pliers</b>                                                                  |
| B21K 5/02        | 1-Punkt Untergruppe | . drilling-tools or other tools for making or working on holes                                                  |
| B21K 5/04        | 2-Punkt Untergruppe | . . twisting-tools, e.g. drills, reamers                                                                        |
| B21K 5/06        | 2-Punkt Untergruppe | . . Dressing, e.g. sharpening rock drills                                                                       |
| B21K 5/08        | 2-Punkt Untergruppe | . . drifting tools                                                                                              |
| B21K 5/10        | 2-Punkt Untergruppe | . . Forming drill-bit shanks                                                                                    |
| B21K 5/12        | 1-Punkt Untergruppe | . other cutting tools (cutlery wares B21K 11/00)                                                                |
| B21K 5/14        | 1-Punkt Untergruppe | . hand hammers                                                                                                  |
| B21K 5/16        | 1-Punkt Untergruppe | . tools for turning nuts                                                                                        |
| B21K 5/18        | 1-Punkt Untergruppe | . handles or parts therefor                                                                                     |
| B21K 5/20        | 1-Punkt Untergruppe | . Making working faces of dies, either recessed or outstanding                                                  |

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| <b>B21K 7/00</b>  | <b>Hauptgruppe</b>  | <b>Making railway appurtenances; Making vehicle parts</b>                                                                                                                |
| B21K 7/02         | 1-Punkt Untergruppe | . parts for permanent way (spikes B21K 1/72)                                                                                                                             |
| B21K 7/04         | 2-Punkt Untergruppe | . . switch tongues                                                                                                                                                       |
| B21K 7/06         | 2-Punkt Untergruppe | . . sleepers                                                                                                                                                             |
| B21K 7/08         | 2-Punkt Untergruppe | . . base plates for rails, e.g. chairs                                                                                                                                   |
| B21K 7/10         | 2-Punkt Untergruppe | . . rail joints                                                                                                                                                          |
| B21K 7/12         | 1-Punkt Untergruppe | . parts for locomotives or vehicles, e.g. frames, underframes                                                                                                            |
| B21K 7/14         | 2-Punkt Untergruppe | . . brake rigging or brake parts [2]                                                                                                                                     |
| <b>B21K 9/00</b>  | <b>Hauptgruppe</b>  | <b>Reconditioning railroad accessories, e.g. rails</b>                                                                                                                   |
| <b>B21K 11/00</b> | <b>Hauptgruppe</b>  | <b>Making cutlery wares; Making garden tools or the like</b>                                                                                                             |
| B21K 11/02        | 1-Punkt Untergruppe | . knives                                                                                                                                                                 |
| B21K 11/04        | 1-Punkt Untergruppe | . spoons; table forks                                                                                                                                                    |
| B21K 11/06        | 1-Punkt Untergruppe | . scissors                                                                                                                                                               |
| B21K 11/08        | 1-Punkt Untergruppe | . sickles; scythes                                                                                                                                                       |
| B21K 11/10        | 1-Punkt Untergruppe | . axes; picks                                                                                                                                                            |
| B21K 11/12        | 1-Punkt Untergruppe | . spades; shovels                                                                                                                                                        |
| B21K 11/14        | 1-Punkt Untergruppe | . rakes; garden forks                                                                                                                                                    |
| <b>B21K 13/00</b> | <b>Hauptgruppe</b>  | <b>Making locksmiths' goods, e.g. handles for cases</b>                                                                                                                  |
| B21K 13/02        | 1-Punkt Untergruppe | . hinges                                                                                                                                                                 |
| <b>B21K 15/00</b> | <b>Hauptgruppe</b>  | <b>Making blacksmiths' goods</b>                                                                                                                                         |
| B21K 15/02        | 1-Punkt Untergruppe | . horse-shoes; accessories therefor                                                                                                                                      |
| B21K 15/04        | 2-Punkt Untergruppe | . . caulks                                                                                                                                                               |
| B21K 15/06        | 1-Punkt Untergruppe | . metal attachments for footwear, e.g. wear-resisting plates                                                                                                             |
| <b>B21K 17/00</b> | <b>Hauptgruppe</b>  | <b>Making sport articles, e.g. skates</b>                                                                                                                                |
| <b>B21K 19/00</b> | <b>Hauptgruppe</b>  | <b>Making articles for agricultural machinery</b>                                                                                                                        |
| B21K 19/02        | 1-Punkt Untergruppe | . plough blades; ploughshares                                                                                                                                            |
| <b>B21K 21/00</b> | <b>Hauptgruppe</b>  | <b>Making hollow articles not covered by a single preceding subgroup (essentially from sheet-metal or uniform thin-walled tubes B21D , e.g. B21D 41/00 , B21D 51/00)</b> |
| B21K 21/02        | 1-Punkt Untergruppe | . Producing blanks in the shape of discs or cups as semi-finished articles for making hollow articles, e.g. to be deep-drawn or extruded                                 |
| B21K 21/04        | 1-Punkt Untergruppe | . Shaping thin-walled hollow articles, e.g. cartridges                                                                                                                   |
| B21K 21/06        | 1-Punkt Untergruppe | . Shaping thick-walled hollow articles, e.g. projectiles                                                                                                                 |
| B21K 21/08        | 1-Punkt Untergruppe | . Shaping hollow articles with different cross-section in longitudinal direction, e.g. nozzles, spark-plugs                                                              |
| B21K 21/10        | 2-Punkt Untergruppe | . . cone-shaped or bell-shaped articles, e.g. insulator caps                                                                                                             |
| B21K 21/12        | 1-Punkt Untergruppe | . Shaping end portions of hollow articles                                                                                                                                |
| B21K 21/14        | 2-Punkt Untergruppe | . . closed or substantially-closed ends, e.g. cartridge bottoms                                                                                                          |

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| B21K 21/16        | 1-Punkt Untergruppe | . Remodelling hollow bodies with respect to the shape of the cross-section (remodelling end portions only B21K 21/12)                                                                                                                                                  |
| <b>B21K 23/00</b> | <b>Hauptgruppe</b>  | <b>Making other articles</b>                                                                                                                                                                                                                                           |
| B21K 23/02        | 1-Punkt Untergruppe | . members of endless tracks, e.g. track guides, shoes (making from sheet-metal B21D)                                                                                                                                                                                   |
| B21K 23/04        | 1-Punkt Untergruppe | . flanged articles (B21K 1/28 takes precedence; flanging tubes B21D)                                                                                                                                                                                                   |
| <b>B21K 25/00</b> | <b>Hauptgruppe</b>  | <b>Uniting components to form integral members, e.g. turbine wheels and shafts, caulks with inserts, with or without shaping of the components (uniting by interference- or press-fitting B23P 11/02 , B23P 19/02)</b><br><b><u>Accessories; Auxiliary devices</u></b> |
| <b>B21K 27/00</b> | <b>Hauptgruppe</b>  | <b>Handling devices, e.g. for feeding, aligning, discharging; Cutting-off means; Arrangement thereof</b>                                                                                                                                                               |
| B21K 27/02        | 1-Punkt Untergruppe | . Feeding devices for rods, wire, or strips                                                                                                                                                                                                                            |
| B21K 27/04        | 2-Punkt Untergruppe | . . allowing successive working steps                                                                                                                                                                                                                                  |
| B21K 27/06        | 1-Punkt Untergruppe | . Cutting-off means; Arrangement thereof                                                                                                                                                                                                                               |
| <b>B21K 29/00</b> | <b>Hauptgruppe</b>  | <b>Arrangements for heating or cooling during processing (for preparing metal stock to be forged or pressed B21J 1/06; heating equipment in general, see the appropriate subclasses, e.g. H05B)</b>                                                                    |
| <b>B21K 31/00</b> | <b>Hauptgruppe</b>  | <b>Control devices specially adapted for positioning tool carriers</b>                                                                                                                                                                                                 |