

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

SHAPING

B21 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](#))

(NOTES omitted)

B21L MAKING METAL CHAINS (making chains or chain links by casting [B22D 25/02](#); chains in general [F16G](#))

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00	Making chains or chain links by bending workpieces of rod, wire, or strip to form links of oval or other simple shape (B21L 3/00 , B21L 7/00 take precedence)	11/00	Making chains or chain links of special shape
1/02	• by bending the ends of the workpieces to abut	11/005	• { Making ornamental chains (B21L 11/02 - B21L 11/14 take precedence; ornamental chains A44C)}
1/04	• by bending and interconnecting the ends of the workpieces with or without separate jointing members	11/02	• each link being formed of a single member of which both ends are bent or shaped to engage the middle portions of the next link
3/00	Making chains or chain links by bending the chain links or link parts and subsequently welding or soldering the abutting ends (B21L 7/00 takes precedence)	11/04	• . the ends being pierced or punched to form eyes
3/02	• Machines or devices for welding chain links	11/06	• . . the workpiece being of thin strip metal
3/04	• . by making use of forge or pressure welding	11/08	• . the ends being interengaged with other parts of the same link
5/00	Making chains or chain links by working the starting material in such a way that integral, i.e. jointless, chains links are formed	11/10	• the chain links having opposed correspondingly shaped cylindrical and hook-like parts of which one parts forms a hinge-like support for the adjacent link (B21L 11/02 takes precedence)
5/02	• in such a way that interconnected links are formed	11/12	• Forming bead chains
7/00	Making chains or chain links by cutting single loops or loop-parts from coils, assembling the cut parts and subsequently subjecting same to twisting with or without welding	11/14	• Making chain links with inserted or integrally-formed studs
9/00	Making chains or chain links, the links being composed of two or more different parts, e.g. drive chains (B21L 1/04 , B21L 7/00 , B21L 11/14 , B21L 13/00 take precedence)	13/00	Making terminal or intermediate chain links of special shape; Making couplings for chains, e.g. swivels, shackles
9/02	• of roller-chain or other plate-link type	15/00	Finishing or dressing chains or chain links, e.g. removing burr material, calibrating (B21L 9/06 takes precedence)
9/04	• . Punching or bending the different parts of the chain links	15/005	• { Pre-stretching chains }
9/06	• . Sorting, feeding, assembling, riveting, or finishing parts of chains	15/02	• Twisting already closed links
9/065	• . . { Assembling or disassembling }	19/00	Appurtenances for chain-making not restricted to any particular process
9/08	• . Combining the chain links with auxiliary parts, e.g. welding-on wear-resistant parts	21/00	Tools or implements for repairing chains using metal-working operations, e.g. for detaching deformed chain links
		99/00	Subject matter not provided for in other groups of this subclass