

## SECTION B — PERFORMING OPERATIONS; TRANSPORTING

### B21 MECHANICAL METAL-WORKING WITHOUT ESSENTIALLY REMOVING MATERIAL; PUNCHING METAL

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

#### Subclass index

##### GENERAL METHODS OF WORKING

Chains made from individual links.....	1/00, 3/00, 7/00, 9/00
Chains with integral links.....	5/00
METHODS FOR MAKING SPECIAL CHAINS OR PARTS THEREOF.....	11/00, 13/00
TOOLS FOR MANUFACTURE OR REPAIR.....	19/00, 21/00
FINISHING.....	15/00
OTHER MANUFACTURE.....	99/00

#### **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)

- 1/02 • by bending the ends of the workpieces to abut
- 1/04 • by bending and interconnecting the ends of the workpieces with or without separate jointing members

#### **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)

- 3/02 • Machines or devices for welding chain links
- 3/04 • • by making use of forge or pressure welding

#### **5/00 Making chains or chain links by working the starting material in such a way that integral, i.e. jointless, chain links are formed**

- 5/02 • in such a way that interconnected links are formed

#### **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**

#### **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)

- 9/02 • of roller-chain or other plate-link type
- 9/04 • • Punching or bending the different parts of the chain links
- 9/06 • • Sorting, feeding, assembling, riveting, or finishing parts of chains
- 9/08 • • Combining the chain links with auxiliary parts, e.g. welding-on wear-resistant parts

#### **11/00 Making chains or chain links of special shape**

- 11/02 • each link being formed of a single member of which both ends are bent or shaped to engage the middle portion of the next link
- 11/04 • • the ends being pierced or punched to form eyes
- 11/06 • • • the workpiece being of thin strip metal
- 11/08 • • the ends being interengaged with other parts of the same link
- 11/10 • the chain links having opposed correspondingly shaped cylindrical and hook-like parts of which one part forms a hinge-like support for the adjacent link (B21L 11/02 takes precedence)
- 11/12 • Forming bead chains
- 11/14 • Making chain links with inserted or integrally-formed studs

#### **13/00 Making terminal or intermediate chain links of special shape; Making couplings for chains, e.g. swivels, shackles**

#### **15/00 Finishing or dressing chains or chain links, e.g. removing burr material, calibrating** (B21L 9/06 takes precedence)

- 15/02 • Twisting already closed links

#### **19/00 Appurtenances for chain-making not restricted to any particular process**

#### **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 [2009.01]**