

**ECLA****EUROPEAN CLASSIFICATION****B21H****MAKING PARTICULAR METAL OBJECTS BY ROLLING, e.g. SCREWS, WHEELS, RINGS, BARRELS, BALLS (essentially from sheet metal B21D)****Note**

This subclass covers rolling operations which are specially adapted for use in the manufacture of particular objects and which are not essentially combined with any different metal-working operation unless the latter is a subsidiary operation performed in the same machine.

**B21H1/00****Making articles shaped as bodies of revolution** (rolling tubes [B21B17/00](#) to [B21B25/00](#))

## B21H1/02

- discs; disc wheels

## B21H1/04

- with rim, e.g. railways wheels [N: or pulleys]

## B21H1/06

- rings of restricted axial length (extending closed shapes of metal bands by simultaneous rolling at two or more zones [B21B5/00](#)) [C9502]

## B21H1/08

- railway wheel rims

## B21H1/10

- rims for pneumatic tyres

## B21H1/12

- rings for ball or roller bearings

## B21H1/14

- balls, rollers, cone rollers, or like bodies

## B21H1/16

- for bearings

## B21H1/18

- cylinders, e.g. rolled transversely [N: cross-rolling]

## B21H1/20

- rolled longitudinally

## B21H1/22

- characterised by use of rolls having circumferentially varying profile; [N: Die-rolling]

**B21H3/00****Making helical bodies or bodies having parts of helical shape** (helical gears [B21H5/00](#); forming tubes or tube walls into helical shape [B21D11/06](#), [B21D15/04](#))

## B21H3/02

- external screw-threads; [N: Making dies for thread rolling]

## B21H3/02C

- [N: combined with rolling splines, ribs, grooves or the like, e.g. using compound dies]

## B21H3/02L

- [N: Rolling locking screws]

## B21H3/02S

- [N: Rolling of self-tapping screws]

## B21H3/04

- Making by means of profiled-rolls [N: or die rolls]

## B21H3/04H

- [N: Thread-rolling heads]

## B21H3/04H2

- [N: working axially]

## B21H3/04H4

- [N: working radially] [N9708]

## B21H3/04H6

- [N: working tangentially] [N9708]

## B21H3/06

- Making by means of profiled members other than rolls, e.g. [N: reciprocating flat

- dies or] jaws, moved longitudinally or curvilinearly with respect to each other
- B21H3/06P . . . [N: Planetary thread rolling]
- B21H3/08 . internal screw-threads
- B21H3/10 . twist-drills; screw-taps
- B21H3/12 . articles with helicoidal surface (bending strip or the like helically [B21D11/06](#))
- B21H5/00** **Making gear wheels, [N: racks, spline shafts or worms] [C9709]**
- B21H5/00W . [N: Worms] [N9709]
- B21H5/02 . with cylindrical outline, [N: e.g. by means of die rolls (worms [B21H5/00W](#))] [C9709]
- B21H5/02B . . [N: Finishing gear teeth with cylindrical outline, e.g. burnishing]
- B21H5/02I . . [N: Internally geared wheels] [N1111]
- B21H5/02R . . [N: by rolling using reciprocating flat dies, e.g. racks ([B21H5/02B](#) takes precedence)]
- B21H5/04 . bevel gears
- B21H5/04B . . [N: Finishing bevel gear teeth, e.g. burnishing]
- B21H7/00** **Making articles not provided for in the preceding groups, e.g. agricultural tools, dinner forks, knives, spoons (nails, pins [B21G3/30](#))**
- B21H7/00F . [N: Fasteners, rivets] [N1111]
- B21H7/00R . [N: railway sleepers or chains]
- B21H7/00T . [N: Taper rolling, e.g. leaf springs]
- B21H7/02 . spades; shovels
- B21H7/04 . hoes
- B21H7/06 . ploughshares; axes
- B21H7/08 . forks; rakes [N: spoons]
- B21H7/10 . knives; sickles; scythes
- B21H7/12 . horse-shoes; articles of like shape, e.g. wear-resisting attachments for shoes
- B21H7/14 . knurled articles
- B21H7/16 . turbine blades; compressor blades; propeller blades
- B21H7/18 . grooved pins; Rolling grooves, e.g. oil grooves, in articles [N: ([B21H5/00](#) takes precedence)] [C9709]

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| B21H7/18A       | <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>[N: Rolling annular grooves]</li> </ul> </li> </ul>  |
| B21H7/18A2      | <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>[N: Filet rolling, e.g. of crankshafts] [N1111]</li> </ul> </li> </ul> </li> </ul> |
| B21H7/18H       | <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>[N: Rolling helical or rectilinear grooves]</li> </ul> </li> </ul>   |
| <b>B21H8/00</b> | <b>Rolling metal of indefinite length in repetitive shapes specially designed for the manufacture of particular objects [N: e.g. checkered sheets]</b>  |
| B21H8/00E       | <ul style="list-style-type: none"> <li>[N: Embossing sheets or rolls] [N1111]</li> </ul>  |
| B21H8/02        | <ul style="list-style-type: none"> <li>Rolls of special shape</li> </ul>  |
| <b>B21H9/00</b> | <b>Feeding arrangements for rolling machines or apparatus manufacturing articles dealt with in this subclass</b>  |
| B21H9/02        | <ul style="list-style-type: none"> <li>for screw-rolling machines</li> </ul>  |