

ECLA EUROPEAN CLASSIFICATION

B25D

PERCUSSIVE TOOLS [N: (percussive machines for forging B21J; hand-held drilling machines, in general [B23B45/00](#), for wood [B27C3/08](#) ; drilling machines, used for mining or quarrying, with reciprocating tool which is turned intermittently when out of contact with the working face [E21B1/00](#)) [M1204]

[N: **WARNING**

The following IPC groups are not used in the internal ECLA classification scheme. Subject matter covered by these groups is classified in the following ECLA groups:

B25D13/00	covered by	B25D11/06E
B25D15/00	covered by	B25D11/06R
B25D15/02	covered by	B25D11/06R2
B25D17/10	covered by	B25D17/00 , F16P
B25D17/14	covered by	B23Q11/00F
B25D17/16	covered by	B23Q11/00F
B25D17/18	covered by	B23Q11/00F

B25D1/00

Hand hammers [N: (handles therefor [B25G1/00](#); attachment of handles to the hammer head [B25G3/00](#)); **Hammer heads of special shape or materials**

B25D1/00B

- [N: with nail feeding devices]

B25D1/02

- Inserts or attachments forming the striking part of hammer heads ([B25D1/08](#) to [B25D1/14](#) take precedence)

B25D1/04

- with provision for withdrawing or holding nails or spikes

B25D1/04B

- . [N: with fulcrum member for extracting long nails]

B25D1/06

- . Magnetic holders

B25D1/08

- having deformable heads ([B25D1/12](#) takes precedence)

B25D1/10

- having work protector surrounding faces [N: ([B25D1/12](#) takes precedence)] [M1204]

B25D1/12

- having shock-absorbing means

B25D1/14

- having plural striking faces

B25D1/16

- having the impacting head in the form of a sleeve slidable on a shaft, e.g. hammers for driving a valve or draw-off tube into a barrel

B25D3/00

Hand chisels

B25D5/00

Centre punches

B25D5/02

- Automatic centre punches

B25D7/00

Picks [N: (combined with other tools B25F)] [M1204]

- B25D9/00** **Portable percussive tools with fluid-pressure drive, [N: i.e. driven directly by fluids], e.g. having several percussive tool bits operated simultaneously [N: (B25D15/00 ; portable non-percussive drilling tools driven by fluid pressure or pneumatic power B23B45/04)] [C1204]**
- B25D9/00B . [N: Devices for testing the tool's performance]
- B25D9/02 . of the tool-carrier piston type, i.e. in which the tool is connected to an impulse member
- B25D9/04 . of the hammer piston type, i.e. in which the tool bit or anvil is hit by an impulse member
- B25D9/06 . Means for driving the impulse member
- B25D9/08 . . comprising a built-in air compressor, [N: i.e. the tool being driven by air pressure]
- B25D9/10 . . comprising a built-in internal-combustion engine
- B25D9/11 . . operated by combustion pressure generated by detonation of a cartridge
- B25D9/12 . . comprising a built-in liquid motor, [N: i.e. the tool being driven by hydraulic pressure]
- B25D9/12B . . . [N: driven directly by liquid pressure working with pulses]
- B25D9/14 . Control devices for the reciprocating piston
- B25D9/14B . . [N: for hydraulically actuated hammers having an accumulator]
- B25D9/16 . . Valve arrangements therefor [N: (B25D9/14B takes precedence)]
- B25D9/18 . . . involving a piston-type slide valve
- B25D9/20 . . . involving a tubular-type slide valve
- B25D9/22 . . . involving a rotary-type slide valve
- B25D9/24 . . . involving a rocking-plate type valve
- B25D9/26 . . Control devices for adjusting the stroke of the piston or the force or frequency of impact thereof [N: (control systems adapted for earth drilling E21B44/00)] [C9412]
- B25D9/26B . . . [N: with arrangements for automatic stopping when the tool is lifted from the working face or suffers excessive bore resistance]
- B25D11/00** **Portable percussive tools with electromotor [N: or other motor] drive [C9505]**
- B25D11/00B . [N: Arrangements for adjusting the stroke of the impulse member or for stopping the impact action when the tool is lifted from the working surface]
- B25D11/02 . in which the tool is connected to an impulse member
- B25D11/04 . in which the tool bit or anvil is hit by an impulse member
- B25D11/06 . Means for driving the impulse member
- B25D11/06B . . [N: comprising a wobbling mechanism, swash plate]
- B25D11/06E . . [N: using an electromagnetic drive] [N9505]
- B25D11/06R . . [N: using centrifugal or rotary impact elements] [N9505]
- B25D11/06R2 . . . [N: in which the tool bit or anvil is hit by a rotary impulse member] [N9505]

- B25D11/08 . . comprising a worm mechanism, [N: i.e. a continuous guide surface with steadily rising and falling incline]
- B25D11/10 . . comprising a cam mechanism
- B25D11/10B . . . [N: the rotating axis of the cam member being coaxial with the axis of the tool]
- B25D11/10B2 [N: with rollers or balls as cam surface]
- B25D11/10B4 [N: cam member and cam follower having the same shape ([B25D11/10B2](#) takes precedence)]
- B25D11/10F . . . [N: the rotation axis of the cam member being parallel but offset to the tool axis]
- B25D11/12 . . comprising a crank mechanism
- B25D11/12B . . . [N: with a fluid cushion between the crank drive and the striking body]

- B25D16/00** **Portable percussive machines with superimposed rotation**, [N: the rotational movement of the output shaft of a motor being modified to generate axial impacts on the tool bit (**combined percussion and rotary drilling adapted for earth drilling** [E21B6/00](#))] [C9412]

- B25D16/00K . [N: Clutches specially adapted therefor]
- B25D16/00M . [N: Mode changers; Mechanisms connected thereto]

- B25D17/00** **Details of, or accessories for, portable power-driven percussive tools** [N: (details or components, e.g. casings, bodies, of portable power-driven tools not particularly related to the operation performed [B25F5/00](#))] [M1204]

- B25D17/00B . [N: Attachments or adapters placed between tool and hammer]
- B25D17/02 . Percussive tool bits [N: (**drill bits for earth drilling** [E21B10/00](#))] [M1204]
- B25D17/04 . Handles; Handle mountings
- B25D17/04B . . [N: Handles resiliently mounted relative to the hammer housing ([B25D17/04D](#) takes precedence)]
- B25D17/04D . . [N: Sleeve-like handles surrounding the tool bit]
- B25D17/06 . Hammer pistons; Anvils; [N: Guide-sleeves for pistons]
- B25D17/08 . Means for retaining and guiding the tool bit, e.g. chucks [N: allowing axial oscillation of the tool bit ([B25D17/00B](#) takes precedence)]
- B25D17/08B . . [N: Retainers consisting of a swinging yoke or latching means ([B25D17/08R2](#) takes precedence)]
- B25D17/08R . . [N: Rotating chucks or sockets]
- B25D17/08R2 . . . [N: with a swinging yoke or latching means]
- B25D17/08R4 . . . [N: with radial movable locking elements co-operating with bit shafts specially adapted therefor]

- B25D17/11 . Arrangements of noise-damping means [N: (**noise damping in general** [G10K11/16](#))] [C1204]
- B25D17/12 . . of exhaust silencers [N: (**exhaust silencers in general** [F01N](#))]
- B25D17/20 . Devices for cleaning or cooling tool or work

- B25D17/22
 - . . using pressure fluid
- B25D17/24
 - . Damping the reaction force [N: (resiliently mounted handles [B25D17/04B](#); dampers in connections of hammers to backhoes [E02F3/96D6](#))]
- B25D17/24B
 - . . [N: using a fluid]
- B25D17/26
 - . Lubricating [N: (in general F16N)] [C1204]
- B25D17/26B
 - . . [N: the lubricant being entrained to the machine parts by the driving fluid]
- B25D17/28
 - . Supports; Devices for holding power-driven percussive tools in working position [N: (connections of hammers to backhoes [E02F3/96D6](#))]
- B25D17/30
 - . . Pillars and struts
- B25D17/32
 - . . Trolleys