CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

SHAPING

B24 GRINDING; POLISHING

(NOTE omitted)

B24D TOOLS FOR GRINDING, BUFFING OR SHARPENING (abrading-bodies specially

designed for tumbling apparatus, e.g. abrading-balls <u>B24B 31/14</u>; honing tools <u>B24B 33/08</u>; lapping tools <u>B24B 37/11</u>)

NOTES

- 1. This subclass covers grinding tools for working on any material
- 2. Tools for grinding, buffing or sharpening, specially designed for a particular purpose, which purpose is provided for in a single other place, are classified in that place, e.g. <u>B23F 21/02</u>

3/00	Physical features of abrasive bodies, or sheets, e.g. abrasive surfaces of special nature; Abrasive	3/344 {the bonding agent being organic}3/346 {utilised during polishing, or grinding operation}
	bodies or sheets characterised by their constituents	3/348 {utilised as impregnating agent for porous
3/001	• {the constituent being used as supporting member}	abrasive bodies}
3/002	• • {Flexible supporting members, e.g. paper, woven, plastic materials}	Bonded abrasive wheels
3/004 3/005	 • { with special coatings } • {the constituent being used during pre- or after-treatment (B24D 3/348 takes precedence) } 	5/00 Bonded abrasive wheels, or wheels with inserted abrasive blocks, designed for acting only by their periphery; Bushings or mountings therefor
3/007	 {the constituent being used as bonding agent between different parts of an abrasive tool} 	5/02 • Wheels in one piece
3/008	• {Abrasive bodies without external bonding agent}	5/04 • with reinforcing means 5/06 • with inserted abrasive blocks, e.g. segmental
3/02	 the constituent being used as bonding agent 	5/063 • With inserted abrasive blocks, e.g. segmental 5/063 • With segments embedded in a matrix which is
3/04	and being essentially inorganic	rubbed away during the grinding process}
3/06	• • • metallic {or mixture of metals with ceramic materials, e.g. hard metals, "cermets", cements}	5/066 • { with segments mounted axially one against the other}
3/08	• • • for close-grained structure, e.g. using metal	5/08 • with reinforcing means
	with low melting point	5/10 • with cooling provisions, e.g. with radial slots
3/10	• • • • for porous or cellular structure, e.g. for use	5/12 • Cut-off wheels
2/12	with diamonds as abrasives	5/123 • • {having different cutting segments}
3/12	• • water-setting, e.g. concrete	5/126 {having an internal cutting edge}
3/14 3/16	 ceramic, i.e. vitrified bondings for close-grained structure, i.e. of high density 	 5/14 . Zonally-graded wheels; Composite wheels comprising different abrasives
3/18	for porous or cellular structure	5/16 • Bushings; Mountings
3/20	. and being essentially organic	5/165 • • {Balancing means}
3/22	Rubbers {synthetic or natural}	7/00 Bonded abrasive wheels, or wheels with inserted
3/24	• • • • for close-grained structure {(B24D 3/002 takes precedence)}	abrasive blocks, designed for acting otherwise than only by their periphery, e.g. by the front face;
3/26	for porous or cellular structure	Bushings or mountings therefor
3/28	Resins {or natural or synthetic macromolecular	7/005 • {for cutting spherical surfaces}
	compounds (<u>B24D 3/22</u> takes precedence)}	7/02 • Wheels in one piece
3/285	• • • • {Reaction products obtained from aldehydes	7/04 with reinforcing means
	or ketones}	7/06 • with inserted abrasive blocks, e.g. segmental
3/30	for close-grained structure	7/063 • • { with segments embedded in a matrix which is
3/32	for porous or cellular structure	rubbed away during the grinding process}
3/34	characterised by additives enhancing special	7/066 • Grinding blocks; their mountings or supports
	physical properties, e.g. wear resistance, electric	7/08 with reinforcing means
2/2/2	conductivity, self-cleaning properties	7/10 • with cooling provisions
3/342	• {incorporated in the bonding agent}	

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B24D Bonded abrasive wheels

7/12	 with apertures for inspecting the surface to be abraded 	13/20	. Mountings for the wheels
7/14	Zonally-graded wheels; Composite wheels comprising different abrasives	15/00	Hand tools or other devices for non-rotary grinding, polishing, or stropping
7/16	Bushings; Mountings	15/02	 rigid; with rigidly-supported operative surface
7/18	Wheels of special form	15/023	 {using in exchangeable arrangement a layer of flexible material}
9/00	Wheels or drums supporting in exchangeable arrangement a layer of flexible abrasive material,	15/026	• • {able to be stripped-off from a built-in delivery spool}
	e.g. sandpaper	15/04	• resilient; with resiliently-mounted operative surface
9/003	• {Wheels having flaps of flexible abrasive material	15/045	• • {Glove-shaped abrasive devices}
27.002	supported by a flexible material}	15/043	 specially designed for sharpening cutting edges
9/006	• {Tools consisting of a rolled strip of flexible	15/061	 specially designed for sharpening editing edges . {for electric shaving blades}
	material}	15/063	. {for creetic shaving brades}. {for grinding shears, scissors}
9/02	Expansible drums for carrying flexible material in	15/065	. {for sharpening both knives and scissors}
	tubular form, e.g. expanded by centrifugal force	15/066	 • {for sharpening both knives and selssors} • {for sharpening skate blades, i.e. blades having
9/04	Rigid drums for carrying flexible material	13/000	two sharp edges defined by three surfaces
9/06	able to be stripped-off from a built-in delivery spool		intersecting in pairs at an angle of substantially 90°}
9/08	 Circular back-plates for carrying flexible material 	15/068	• • {for sharpening ski edges, i.e. sharp edges
9/085	• • {Devices for mounting sheets on a backing plate}		defined by two surfaces intersecting at an angle of
9/10	with suction means for securing the material		substantially 90°}
11/00	Constructional features of flexible abrasive	15/08	• of knives; of razors
11/00	materials; Special features in the manufacture of	15/081	{with sharpening elements in interengaging or
	such materials		in mutual contact}
11/001	• {Manufacture of flexible abrasive materials}	15/082	• • • {the elements being rotatable}
11/003	(without embedded abrasive particles)	15/084	• • • {the sharpening elements being fitted to knife
11/003	(B24D 11/005 takes precedence)		sheaths, holders or handles}
11/005	• • {Making abrasive webs}	15/085	• • { with reciprocating whetstones }
11/006	• (Without embedded abrasive particles)	15/087	• • • {having a crank handle}
11/008	• {Finishing manufactured abrasive sheets, e.g.	15/088	• • { with whetting leather}
11/000	cutting, deforming}	15/10	 of safety-razor blades (devices with
11/02	Backings, e.g. foils, webs, mesh fabrics		mechanically-operated parts <u>B24B 3/50</u>)
11/04	• Zonally-graded surfaces	15/105	{Holders therefor}
11/06	Connecting the ends of materials, e.g. for making abrasive belts	18/00	Manufacture of grinding tools {or other grinding devices}, e.g. wheels, not otherwise provided for
11/065	• • {Treatment of the ends of flexible abrasive	18/0009	• {using moulds or presses}
	materials before connecting them}	18/0018	• {by electrolytic deposition}
11/08	Equipment for after-treatment of the coated	18/0027	• {by impregnation}
	backings, e.g. for flexing the coating	18/0036	• {by winding up abrasive bands}
13/00	Wheels having flexibly-acting working parts, e.g.	18/0045	• {by stacking sheets of abrasive material}
13/00	buffing wheels; Mountings therefor	18/0054	• {by impressing abrasive powder in a matrix}
13/02	acting by their periphery	18/0063	• {by extrusion}
13/04	 comprising a plurality of flaps or strips arranged 	18/0072	• {using adhesives for bonding abrasive particles or
13/04	around the axis		grinding elements to a support, e.g. by gluing}
13/045	• • • {comprising flaps not covering the entire	18/0081	• {of wire-reinforced grinding tools}
	periphery of the wheel}	18/009	• {Tools not otherwise provided for}
13/06	the flaps or strips being individually attached	00/00	
13/08	comprising annular or circular sheets packed side by side	99/00	Subject matter not provided for in other groups of this subclass
13/085	• • {comprising flaps with a circular sheet on each side}	99/005	• {Segments of abrasive wheels}
13/10	comprising assemblies of brushes		
13/12	 comprising assemblies of felted or spongy material, e.g. felt, steel wool, foamed latex 	2201/00	Bushings or mountings integral with the grinding wheel
13/14	 acting by the front face 	2203/00	Tool surfaces formed with a pattern
13/142	• • {Wheels of special form}	44U3/UU	1001 Surfaces formed with a pattern
13/145	• • {having a brush-like working surface}	2205/00	Grinding tools with incorporated marking device
13/147	 {comprising assemblies of felted or spongy material; comprising pads surrounded by a flexible material} 		
13/16	 comprising pleated flaps or strips 		

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