

Classified List of Exhibits

1.METAL MACHINE TOOLS		72 Coining presses	149 Arbors & holders	6-b. GRINDING WHEELS & ABRASIVES	
(1) Turning Machines (Lathe)		73 Platen presses	150 Drill chucks	221 Grinding wheels & abrasive chips	
1 Engine lathes (incl. NC)	74 Extrusion presses	151 Tool holders for lathes	222 Abrasive discs, belts, cloths & papers		
2 Roll lathes (incl. NC)	75 Forging presses	152 Other tool holders	223 Abrasives		
3 Automatic lathes (incl. NC)	76 Cold hobbing presses	(3) Accessories & Attachments	224 Others		
4 Bench lathes (incl. NC)	77 Briquetting presses	153 Dividing heads	7. PRECISION MEASURING, OPTICAL MEASURING & TESTING MACHINES & INSTRUMENTS		
5 NC lathes (horizontal spindle)	78 Press brakes	154 Rotary tables, tilting tables, rectangular tables, cross tables			
6 NC lathes (vertical spindle)	79 Hydro-forming presses	155 Machine vises	225 Vernier calipers (including height gauge, depth gauge)		
7 Turning center	80 Other hydraulic presses	156 Multi-axis units (feeding, drilling, etc.)	226 Micrometers		
8 Other lathes (incl. NC)	(2) Mechanical Presses	157 Jigs, attachments, and metal processing fixtures	227 Dial gauges		
(2) Drilling Machines	81 Power presses	158 Other accessories & attachments	228 Block gauges		
9 Upright drilling machines	82 Crank presses	(4) Machine Components	229 Gauges		
10 Radial drilling machines	83 Crank-less presses	159 Clutches & brakes	230 Air micrometers		
11 Bench drilling machines	84 Knuckle joint presses	160 Ball screws	231 Electric micrometers		
12 Deep hole drilling machines	85 Link-motion presses	161 Linear motion guides	232 Length measuring machines		
13 NC drilling machines	86 Drawing presses	162 Bearings	233 3D coordinate measuring machines		
14 Other drilling machines (incl. NC)	87 Dieing machines	163 Spindles	234 Angle measuring machines & instruments		
(3) Boring Machines	88 Punching presses	164 Shaft couplings	235 Screw threading machines		
15 Horizontal boring machines (incl. NC)	89 Press brakes	165 Other components	236 Gear measuring machines		
16 Horizontal boring and milling machines (incl. NC)	90 Transfer presses	(5) Auxiliary equipment	237 Surface roughness measuring machines & instruments		
17 Jig boring machines (incl. NC)	91 Multi-slide forming presses	166 Automatic tool changers and accessories	238 Roundness, straightness & form measuring machines & instruments		
18 Fine boring machines (incl. NC)	92 Metal powder molding machines	167 Tool presetters	239 Automatic precision measuring machines & instruments		
19 Other boring machines (incl. NC)	93 Notching presses	168 Chip disposal equipment	240 Digital position readout systems		
(4) Milling Machines	94 High speed production presses	169 Lubrication equipment & temperature controllers	241 Universal measuring microscopes		
20 Knee type milling machines (incl. NC)	95 Friction screw presses	170 Protective covers	242 Tool maker's microscopes		
21 Bed type milling machines (incl. NC)	96 Other mechanical presses	171 Cutting oil, coolant & lubricating oil filters	243 Metallurgical microscopes		
22 Universal milling machines (incl. NC)	(3) Bending Machines	172 Variable speed changers	244 Projectors		
23 Double-headed milling machines (incl. NC)	97 Plate & sheet bending rolls	173 Pallet changers & pallet magazines	245 Tachometers		
24 Other milling machines (incl. NC)	98 Plate & sheet roll levelers	174 Other equipment	246 Other measuring instruments		
(5) Machining Centers	99 Seaming rolls	4. HYDRAULIC & PNEUMATIC EQUIPMENT	247 Material testing machines		
25 Machining centers (horizontal spindle)	100 Combination rolls	175 Oil hydraulic machine equipment	248 Hardness testing machines		
26 Machining centers (vertical spindle)	101 Other rolls for forming machines	176 Pneumatic components	249 Universal testing machines		
27 Machining centers (double column)	102 Bending machines for sections, round bars & pipes	177 Water hydraulic machine equipment	250 Shock & impact testing machines		
28 Machining centers (others)	103 Pipe & tube expanding rolls	178 Other hydraulic & pneumatic equipment	251 Fatigue testing machines		
29 Machining centers (incl. multitask machines)	104 Cold forming machines	5.GEARS & GEAR SPEED REDUCERS	252 Environmental performance testing machines		
(6) Grinding Machines	105 Folding machines	179 Gears	253 Vibration testing machines		
30 Cylindrical grinding machines (incl. NC)	106 Other bending machines	180 Gear speed reducers	254 Balancing machines		
31 Internal grinding machines (incl. NC)	(4) Shearing Machines	181 Other gears & gear speed reducers	255 Spring testing machines		
32 Surface grinding machines (incl. NC)	107 Circular shears	6-a. TOOLS FOR MACHINES (CUTTING TOOLS & WEAR-RESISTANT TOOLS) & DIAMOND / CBN TOOLS	256 Other testing instruments		
33 Centerless grinding machines (incl. NC)	108 Rotary shears	(1) Tool Materials	8. CONTROLLERS, COMPUTER SYSTEMS		
34 Profile grinding machines (incl. NC)	109 Nibbling shears	182 High speed steels	257 NC		
35 Tool grinding machines (incl. NC)	110 Gap shears and squaring shears	183 Cemented carbides	258 NC support systems		
36 Thread grinding machines (incl. NC)	111 Bar & angle cutters	184 Coated tips	259 CAD/CAM		
37 Slicing machines (incl. NC)	112 Billet shears	185 Cermets	260 Related apparatuses (others)		
38 Jig grinding machines (incl. NC)	113 Other shearing machines	186 Ceramics	261 Production control systems		
39 Vertical grinding machines (incl. NC)	(5) Forging Machines	187 Diamonds (natural and sintered)	262 Other controllers, computer systems		
40 Universal grinding machines (incl. NC)	114 Air (pneumatic) hammers	188 CBN, WBN	9. PUBLICATIONS, PUBLIC RELATIONS, TECHNICAL PUBLICATIONS & INFORMATION		
41 Camshaft grinding machines (incl. NC)	115 Forging presses	189 Other tool materials	263 Publications, public relations, technical publications & information		
42 Other grinding machines (incl. NC)	116 Cold formers	(2) High Speed Steel Tools	10. OTHER ASSOCIATED MACHINERY & EQUIPMENT, RAW MATERIALS, TECHNOLOGIES & PUBLICATIONS		
(7) Finishing Machines	117 Hot formers	190 Drills	264 Machines & equipment		
43 Honing machines	118 Headers	191 Milling cutter, reamers	265 Materials & tools		
44 Super - finishing machines	119 Upsetters	192 End mills	266 Cutting oils & other oils		
45 Lapping machines	120 Forging rolls	193 Milling cutters	267 Environmental protection equipment		
46 Other finishing machines	121 Swaging machines	194 Gear cutters, broaches	268 Others		
(8) Gear Cutting Machines & Finishing Machines	122 Other forging machines	195 Tap, dies			
47 Gear hobbing machines (incl. NC)	(6) Wire Forming Machines	196 Bits			
48 Gear shaping machines (incl. NC)	123 Wire drawing machines	197 Other high speed steel tools			
49 Bevel gear generators (incl. NC)	124 Wire standing, twisting & braiding machines	(3) Cemented Carbide Tools			
50 Gear grinding machines (incl. NC)	125 Wire straightening & cut-off machines	198 Indexable insert tools			
51 Gear finishing machines (incl. NC)	126 Coiling & winding machines	199 Bits			
52 Other gear cutting & gear finishing machines (incl. NC)	127 Other Wire Forming Machines	200 Drills, reamers			
(9) Special Processing Machines	(7) Press, Accessories & Tools for Forming Machines	201 Milling cutters, end mills			
53 Electric discharge machines (incl. NC)	128 Feeding devices	202 Wear resistant tools			
54 Wire electric discharge machines (incl. NC)	129 Safety devices	203 Drawing dies			
55 Small hole electric discharge machines (incl. NC)	130 Dies	204 Molds			
56 Electrochemical machines	131 Die sets	205 Construction tools			
57 Ultrasonic machines	132 Quick die change devices	206 Others (incl. tools and recycling)			
58 Laser beam machines	133 Other presses, accessories & tools for forming machines	(4) Diamond & CBN Tools			
59 Water or other liquid jets machines	(8) Other Metal Forming Machines	207 Diamond dressers, bits			
60 Electron beam machines	134 Welding equipment	208 Diamond drawing dies			
61 Other special processing machines	135 Heat treatment equipment	209 Diamond grinding wheels			
(10) Ultra-Precision Machine Tools	136 Cleaning & degreasing equipment	210 Diamond cutting saws & segmented tools			
62 Ultra-precision machine tools (turning)	137 Other metal forming machines	211 Diamond cutting tools			
63 Ultra-precision machine tools (others)	3. MACHINE ACCESSORIES	212 Other diamond tools			
(11) Other Machine Tools	(1) Work Holding Devices	213 CBN, WBN tools			
64 Sawing machine & cut-off machines	138 Hand operated chucks	(5) Cermet Tools, Ceramic Tools			
65 Special purpose machine tools	139 Power operated chucks	214 Cermet tools			
66 Broaching machines	140 Collet chucks	215 Ceramic tools			
67 Additive manufacturing machines (3D printer)	141 Magnetic chucks	(6) Other Tools for Machines			
68 Other machine tools	142 Lathe centers	216 Electric tools			
2. METAL FORMING MACHINES	143 Live centers	217 Electric equipment			
(1) Hydraulic Presses	144 Other work holding devices	218 Engineering tools			
69 Deep drawing presses	(2) Tool Holders	219 Industrial knives (machines)			
70 Bending presses	145 Milling chucks & accessories	220 Other tools for machines			
71 Fine blanking presses	146 Tap holders				
	147 Boring bars & boring heads				
	148 Sleeves & sockets				