

CONCORDANCE - United States to International Patent Classification

U.S.			IPC			U.S.			IPC			U.S.			IPC		
Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation
U.S. CLASS 164--Con.																	
158	B 41 C		320	B 22 C	9/00	488-489	B 22 D	11/10	104.16	F 28 D	13/00	267-270	F 28 D				
	B 41 D		321	B 22 D	17/00	490	B 22 D	11/00	104.17-104.34	F 28 D	15/00		F 28 F	13/00			
159	B 22 C		322-323	B 22 C	9/20	491	B 22 D	11/10	108	F 28 F	13/06	267	F 25 D	23/12			
	B 22 D	7/10		B 22 D	5/00	492-514	B 22 D	27/02	109.1	F 28 F	13/12	268	C 12 Q	1/68			
160.1-160.2	B 22 C	9/12	324-328	B 22 D	5/02	502-509	B 22 D	11/00	110	F 28 B	1/00	269	G 05 D	23/19			
161-162	B 22 C	13/02	329-331	B 22 D	5/04	515	B 22 C	11/00	111-114	F 28 B	3/00	270	G 05 D	23/24			
161-163	B 22 C	13/14	332-334	B 22 D	17/24		B 22 D	23/10		F 28 B	9/10	271	B 60 H	1/00			
164	B 22 C	13/04		B 22 D	19/00	516	B 22 C	9/00	115-116	F 28 D		272-278	F 28 F	27/00			
165-166	B 22 C	13/08	335	B 22 D	41/00	517	B 22 C	1/00	115-118	A 23 C	3/04	279-286	G 05 D	15/00			
167-168	B 22 D	47/02		B 22 D	41/05		B 22 C	11/00	115	F 28 D	5/02		G 05 D	16/00			
169	B 22 C	15/00	336	B 22 D	41/04	518-519	B 22 C	1/02	116	B 01 D	5/00	279-300	G 05 D	23/00			
170-171	B 22 C	15/08	337	B 22 D	37/00	518	B 22 C	9/12	117	F 28 D	3/02	301-302	F 28 F	27/00			
172	B 22 C	15/00		B 22 D	39/00	519	B 22 C	9/00	118	F 28 D	3/00		G 05 D	9/00			
173	B 22 C	15/08		B 22 D	41/00	520-521	B 22 C	9/12	119	F 28 F	13/12	303	F 24 B	13/00			
174	B 22 C	13/16	338.1-338.2	B 22 D	27/04	520	B 22 C	1/00		F 28 F	19/00		F 28 G				
175	B 22 C	15/20	338.1	B 22 D	41/01	521	B 22 C	9/10	120-121	F 24 H	3/02						
176-179	B 22 C	13/10		B 22 D	41/015	522-529	B 22 C	9/00		F 28 F							
180-182	B 22 C	17/00	339-341	B 22 D	33/04	522	B 22 C	1/04	120	B 29 C	47/88						
183	B 22 C	17/08	342-343	B 22 D	17/26	523	B 22 C	1/02	121	H 01 L	23/467						
184	B 22 C	17/12	344-347	B 22 D	17/22	524	B 22 C	1/04	122-127	F 01 F	13/12						
185	B 22 C	17/14		B 22 D	29/00	525	B 22 C	1/16	122	F 24 H	3/06						
186	B 22 C	13/12	348	B 22 D	27/04	526-529	B 22 C	1/22	123	F 24 F	3/04						
187-188	B 22 C	15/00		B 22 D	41/005				124-127	F 24 B	1/06						
189	B 22 C	19/06	349-351	B 22 C	9/00				128-129	F 24 H	9/02						
190	B 22 C	17/06	352-357	B 22 D	15/00				128	F 24 H	3/00						
191	B 22 C	17/04	358-360	B 22 C	9/08				130-131	F 24 H	3/00						
192-193	B 22 C	5/12	359-361	B 22 C	9/02	4-5	F 28 D	17/00	130	F 28 F	9/26						
194	B 22 C	15/00	362-363	B 22 C	9/08	4-9.4	F 23 L	15/02	132	F 28 D	1/06						
195	B 22 C	15/28	364	B 22 C	9/00	10	F 28 D	17/00	133	F 28 F	13/18						
196-197	B 22 C	15/30	365-370	B 22 C	9/10		F 28 D	19/00		F 28 F	19/02						
198-199	B 22 C	15/20	371-373	B 22 D	15/00	11.1-11.2	F 28 F		134.1	F 28 F	19/00						
200-202	B 22 C	9/12	374-375	B 22 C	21/00	11.1	B 60 H	1/00	135-136	F 28 F	13/00						
203	B 22 C	15/10	376	A 61 C	13/20	11.2	F 22 B	37/00	137-139	F 28 F	7/00						
204	B 22 C	15/30		B 22 C	21/10	41	B 60 H	1/00	140-141	F 28 D	7/10						
205	B 22 C	15/10	377-378	B 22 C	21/02		F 28 F		142	F 28 D	7/12						
206	B 22 C	15/14	379-383	B 22 C	21/14	42-44	B 60 H	3/00	143-144	F 28 F	9/26						
207-212	B 22 C	15/02	384-396	B 22 C	21/00		B 61 D	27/00	145	F 28 F	9/22						
213-214	B 22 C	17/00	397-400	B 22 C	21/14	45	F 24 J	3/08	146	F 28 F	13/00						
215-216	B 22 C	9/22	401	B 22 C	17/00		F 28 D		147	F 28 F	13/08						
217-221	B 22 C	17/06		B 22 D	11/128	46	F 28 F	7/00	148-150	F 28 D	1/00						
222	B 22 C	7/00		B 22 D	29/00	47	F 24 H	3/00	151	F 28 D	1/04						
223	B 22 C	19/06		B 22 D	29/08	48.1-48.2	F 25 B	29/00	152-153	F 28 D	1/02						
224	B 22 C	17/08	402	B 22 D	17/00	49	F 24 D	19/02	154-155	F 28 D	7/10						
225	B 22 C	17/04	403	B 22 D	17/06		F 24 H	9/06	155	F 28 D							
226	B 22 C	17/02	404-407	B 22 D	29/00	50	F 24 F	3/00	156	F 28 D	7/12						
227	B 22 C	17/00	408	B 22 D	29/06	51	F 01 N	5/02	157	F 28 D	7/10						
228-234	B 22 C	11/00	409	B 22 C	17/08		F 01 P		158	F 28 F	9/02						
	B 22 C	13/12	410	B 22 C	23/00	52	F 02 M	31/08	159-161	F 28 F	9/22						
	B 22 C	7/06	411-412	B 22 C	21/14		F 02 P		159-162	F 28 D	7/00						
235-238	B 22 C	7/00	412	B 22 C		53	F 24 D	19/02	162	F 28 F	9/00						
239-243	B 22 C	7/04		B 22 D			F 24 D	5/10	163-165	F 28 D	7/02						
244-245	B 22 C	7/00	413-414	B 22 D	11/16		F 24 H	9/06	163	F 28 D							
	B 22 C	9/22	415	B 22 D	11/00	54	F 24 H	3/02	166	F 28 F	3/00						
246	B 22 C	7/02	416	B 22 D	11/04	55	F 24 D	19/02	167	F 28 F	3/08						
247-249	B 22 C	7/00	417	B 22 D	11/12		F 24 D	19/06	168-169	F 28 F	3/12						
	B 22 C	9/22	418	B 22 D	11/00		F 24 H	9/06	170	F 28 F	3/14						
250.1	B 22 D	13/06	419	B 22 D	19/00	56-57	F 24 H		171	F 28 F	1/32						
	B 22 D		420-421	B 22 D	11/00	56	F 24 D	3/16	172	F 28 F	1/10						
253-258	B 22 D	18/06	422	B 22 D	13/02	57	F 28 D	1/02	173-175	F 28 F	9/02						
	B 22 D	27/15	423	B 22 D	11/00	58	F 25 B	29/00	176	F 28 D	7/06						
259	B 22 D	27/00	424	B 22 D	11/12	59	F 24 F	7/00	177	F 28 F	1/00						
260-261	B 22 D	27/08	425-426	B 22 D	11/08	60	F 24 F	3/14	178	F 28 F	9/04						
262	B 22 D	11/126	427-434	B 22 D	11/06	61	F 25 B	29/00	179	F 28 F	1/42						
263	B 22 D	11/12	435-436	B 22 D	11/04	62	F 25 B	13/00	180	F 28 F	21/00						
264-265	B 22 D	31/00	437-440	B 22 D	11/10	63-65	F 25 B	29/00	181	F 28 F	1/20						
266	B 22 D	1/00	441-442	B 22 D	11/12	66	A 23 C	3/02	182	F 28 F	1/30						
267	B 22 D	13/10	443-444	B 22 D	11/124	67-68	F 28 F	9/00	183-184	F 28 F	1/14						
	B 22 D		445-446	B 22 D	11/08	69	F 28 F	7/00		F 28 F	1/36						
268	B 22 D	11/12	447-448	B 22 D	11/12	70	F 28 F	11/00	185	F 28 F	7/00						
269	B 22 D	45/00	449.1	B 22 D	11/16	71	F 16 F	1/34	186-201	F 28 F							
	B 22 D	47/00		B 22 D	11/18	72-75	F 28 D	1/06	186	A 61 C	5/06						
270.1	B 22 C	5/08	450.1-450.5	B 22 D	11/16	76-83	F 28 F	7/00	200	F 28 D							
	B 22 D			B 22 D	11/18	84	F 28 D	11/06		F 28 F	27/00						
271	B 22 D	11/00	451	B 22 D	11/00		F 28 G	7/00	201	A 47 J	39/00						
272	B 22 D	45/00		B 22 D	46/00	85	F 24 H	3/02		F 25 B	29/00						
284-285	B 22 D	17/00	452	B 22 D	11/16		F 28 F	25/10	202-204	B 60 H							

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U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation
U.S. CLASS 166--Con.														
117.5-117.6	E 21 B	23 / 03	285	E 21 B	33 / 00	23	A 62 C	35 / 60		A 01 D	31 / 00	204-211	A 01 B	3 / 00
	E 21 B	23 / 12	286-295	E 21 B	33 / 13		G 08 B			A 01 D	33 / 00		A 01 B	5 / 08
	E 21 B	31 / 14	296	E 21 B	43 / 10	24-25	A 62 C	27 / 00	63-65	A 01 B	43 / 00		A 01 B	5 / 14
	E 21 B	7 / 06	297-298	E 21 B	29 / 00	26-29	A 62 C	35 / 02	66-144	A 01 D	13 / 00	212	A 01 B	63 / 16
117.7	E 21 B	43 / 00		E 21 B	29 / 10	30-33	A 62 C	11 / 00		A 01 D	15 / 00	213-232	A 01 B	3 / 00
118-152	E 21 B	23 / 00		E 21 B	43 / 11	34	A 62 C	8 / 00		A 01 D	17 / 00		A 01 B	5 / 08
	E 21 B	33 / 12	299	E 21 B	29 / 02	35	A 62 C	13 / 62		A 01 D	19 / 00		A 01 B	5 / 14
	E 21 B	33 / 13		E 21 B	43 / 00		A 62 C	13 / 66		A 01 D	21 / 00	233-235	A 01 B	13 / 06
	E 21 B	49 / 00		E 21 B	43 / 263	36	A 62 C	8 / 00		A 01 D	23 / 00		A 01 B	13 / 16
153-156	E 21 B	23 / 10	300	E 21 B	43 / 27	37-41	A 62 C	37 / 08		A 01 D	25 / 00	236-238	A 01 B	63 / 00
	E 21 B	33 / 16	301	E 21 B	31 / 00	42	A 62 C	37 / 36		A 01 D	27 / 00	239	A 01 B	63 / 111
	E 21 B	37 / 04		E 21 B	41 / 00	43-47	A 62 C	2 / 00		A 01 D	29 / 00	240-244	A 01 B	73 / 00
	E 21 B	37 / 10	302-303	E 21 B	36 / 00		A 62 C	3 / 00		A 01 D	31 / 00	240-255	A 01 B	63 / 00
157-158	E 03 B	3 / 12		E 21 B	43 / 24	48-50	A 62 C	8 / 00		A 01 D	33 / 00	256-260	A 01 B	69 / 00
	E 21 B	43 / 00	303	E 21 B	43 / 20	51-53	A 62 C	25 / 00				260.5	A 01 B	61 / 04
162-169	E 21 B	27 / 00	304	E 21 B	37 / 06		A 62 C	27 / 00				261-271	A 01 B	61 / 00
170-176	E 21 B	37 / 00		E 21 B	43 / 00		A 62 C	29 / 00		U.S. CLASS 172 EARTH WORKING				
177.1-177.2	E 21 B	28 / 00	305.1-307	E 21 B	43 / 16	54	A 62 C	3 / 00	1	A 01 B	79 / 00	278-291	A 01 B	69 / 00
177.3	E 21 B	33 / 08	305.1	E 21 B	43 / 26		A 62 C		2	A 01 B	41 / 06	292	A 01 B	51 / 00
177.4	E 21 B	43 / 00	306-307	E 21 B	43 / 25	55	A 62 C		3	A 01 B	67 / 00	293-296	A 01 B	3 / 00
177.5-177.7	E 21 B	28 / 00	308.1-308.6	E 21 B	43 / 26	56	A 62 C	3 / 06	4	A 01 B	63 / 111	297-309	A 01 B	59 / 044
178-203	E 21 B	23 / 00	309-310	E 21 B	43 / 00		A 62 C	37 / 00	5	E 02 F	3 / 76		A 01 B	59 / 046
	E 21 B	31 / 107	311-312	E 21 B	21 / 00		G 01 K		4.5	E 02 F	3 / 76		A 01 B	63 / 104
	E 21 B	31 / 113		E 21 B	37 / 00	57	A 62 C	37 / 12	5-6	A 01 B	63 / 00		A 01 B	63 / 106
179-203	E 21 B	33 / 12		E 21 B	37 / 08	58	A 62 C	37 / 14	7-12	A 01 B	63 / 112	310-314	A 01 B	49 / 00
205	E 03 B	3 / 18	313-331	E 21 B	43 / 00	59	A 62 C	37 / 12	13-15	A 01 D	15 / 00	315-319	A 01 B	63 / 14
	E 21 B	43 / 00	316-331	E 21 B	33 / 00	60-61	A 62 C	37 / 10		A 01 D	21 / 00	320	A 01 B	21 / 08
206-208	E 21 B	23 / 00		E 21 B	34 / 00	62	A 62 C	3 / 07		A 01 D	23 / 00	321	A 01 B	63 / 02
	E 21 B	23 / 02	332.1-332.8	E 21 B	33 / 00		A 62 C	3 / 08		A 01 D	27 / 00	322-323	A 01 B	63 / 00
	E 21 B	43 / 10		E 21 B	34 / 00	63	A 62 C	35 / 00	16	A 01 D	34 / 00	324-328	A 01 B	59 / 00
209-211	E 21 B	40 / 00		E 21 B	43 / 00	64	A 62 C	35 / 04	17-18	E 01 H	8 / 00		A 01 B	69 / 00
212-217	E 21 B	23 / 00	333.1	E 21 B	33 / 00		A 62 C			A 01 D	15 / 00	329-370	A 01 B	15 / 12
	E 21 B	23 / 04		E 21 B	34 / 00	64	A 62 C			A 01 D	21 / 00		A 01 B	3 / 02
222-223	E 21 B	21 / 00		E 21 B	43 / 00	65	A 62 C	5 / 10		A 01 D	23 / 00		A 01 B	3 / 04
222-236	E 21 B	43 / 00	334.1-334.4	E 21 B	34 / 00		A 62 C	3 / 00		A 01 D	27 / 00		A 01 B	39 / 00
227-236	E 03 B	3 / 18		E 21 B	43 / 00	66-68	A 62 C		19-20	A 01 D	34 / 00		A 01 B	5 / 02
237-240	E 21 B	23 / 00	334.1-366	E 21 B	33 / 00		A 62 C	3 / 06	21-22	A 01 B	45 / 04	371-381	A 01 B	1 / 00
241.1-241.7	E 21 B	17 / 10	335-366	E 21 B	29 / 12	69	A 62 C			A 01 B	45 / 00	382	A 01 B	13 / 14
242.1-242.7	E 21 B	17 / 00		E 21 B	34 / 04	70	A 62 C	31 / 22		A 01 B	45 / 02	383-394	A 01 B	15 / 00
242.8	E 21 B	17 / 14		E 21 B	41 / 04		E 21 B	35 / 00	23	A 01 B	3 / 64		A 01 B	23 / 00
242.9	E 21 B	17 / 00		E 21 B	43 / 01	71	A 62 C	13 / 66	24	A 01 B	13 / 04		A 01 B	33 / 08
243	E 21 B	43 / 00		E 21 B	43 / 36		A 62 C			A 01 B	39 / 16		A 01 B	35 / 20
244.1	E 21 B	41 / 02		E 21 B	7 / 12	72-73	A 62 C	13 / 66	25	A 01 B	13 / 00		A 01 B	39 / 00
	E 21 B	43 / 00	367	E 21 B	17 / 01		A 62 C	13 / 66	26	A 01 B	33 / 06	395-407	A 01 B	63 / 16
245	E 21 B	43 / 30	368	E 21 B	29 / 12	74	A 62 C	31 / 02	26.5-26.6	E 02 F	3 / 60	408-412	A 01 B	63 / 18
	E 21 B	43 / 22		E 21 B	33 / 035	75	A 62 C	13 / 76	27-31	A 01 B	49 / 04	413	A 01 B	63 / 22
246	E 21 B	43 / 00		E 21 B	43 / 01	76	A 62 C	37 / 50	32	A 01 B	17 / 00	414-419	A 01 B	63 / 16
247-249	E 21 B	47 / 00	369-372	E 21 B	43 / 00		A 62 C	37 / 50		A 01 B	25 / 00	420	A 01 B	63 / 20
250.01-250.17	E 21 B	47 / 09	373	E 21 B	34 / 06	77-83	A 62 C	35 / 58		A 01 B	33 / 16	421-427	A 01 B	63 / 16
250.04	E 21 B	47 / 06	374-375	E 21 B	34 / 10	84	A 62 C	13 / 22	33	A 01 B	35 / 32	428	A 01 B	63 / 20
250.07	E 21 B	47 / 10	376	E 21 B	29 / 00		A 62 C		34-35	A 01 B	77 / 00	429	A 01 B	63 / 16
250.1	E 21 B	49 / 00	377-378	E 21 B	23 / 00		A 62 C			A 01 B	3 / 00	430-437	A 01 B	15 / 00
250.11	E 21 B	47 / 01	377-379	E 21 B	19 / 00	85-88	A 62 C	35 / 58		A 01 B	33 / 00		A 01 B	23 / 00
250.13	E 21 B	47 / 09	380	E 21 B	19 / 16	89	A 62 C	13 / 76	36	A 01 B	35 / 00		A 01 B	33 / 08
250.15	E 21 B	43 / 12	381-382	E 21 B	23 / 00		A 62 C		37-39	A 01 B	33 / 00		A 01 B	35 / 20
250.16-250.17	E 21 B	49 / 00	383	E 21 B	23 / 08	90-91	A 62 C	37 / 50	37	A 01 B	1 / 00	438	A 01 B	49 / 00
250.17	E 21 B	23 / 14	384-385	E 21 B	19 / 00		A 62 C		40	A 01 B	35 / 00	439-451	A 01 B	59 / 043
251.1	E 21 B	47 / 00	386-387	E 21 B	33 / 12		A 62 C		41-43	A 01 B	33 / 00		A 01 B	59 / 06
252.1-252.6	E 21 B	47 / 00	400-402	E 21 B	43 / 16		A 62 C		44	A 01 B	39 / 19		A 01 B	63 / 02
252.2-252.6	E 21 B	49 / 00	403	E 21 B	43 / 22		A 62 C		45-46	A 01 B	33 / 00		A 01 B	63 / 118
253.1	E 21 B	47 / 00							47	A 01 B	59 / 043	452	A 01 B	63 / 00
254.1-254.2	E 21 B	47 / 00							48-49.5	A 01 B	39 / 08	453	A 01 B	63 / 12
255.1	E 21 B	47 / 09							48-54	A 01 B	33 / 00	454-464	A 01 B	63 / 00
255.2-255.3	E 21 B	47 / 00							50-54	A 01 B	49 / 00	465-466	A 01 B	63 / 10
256-262	E 21 B	43 / 24	1	A 01 K	13 / 00	1-15	A 01 D	13 / 00	54.5	A 01 B	39 / 00	467-490	A 01 B	63 / 00
258	E 21 B	43 / 14		A 01 L			A 01 D	19 / 00		A 01 B	39 / 10	491	A 01 B	63 / 10
259	E 21 B	43 / 26	2	A 01 L	15 / 00		A 01 D	21 / 00	55-62	A 01 B	33 / 00	492-493	A 01 B	63 / 06
263	E 21 B	43 / 00	3	A 01 L	3 / 06		A 01 D	23 / 00	63-73	A 01 B	33 / 16	494-506	A 01 B	63 / 00
264	E 21 B	47 / 00	4	A 01 L	1 / 00		A 01 D	25 / 00		A 01 B	49 / 02	507	A 01 B	63 / 16
	E 21 B	49 / 08		A 01 L	3 / 00		A 01 D	27 / 00		A 01 B	9 / 00	508-516	A 01 B	17 / 00
265-267	E 21 B	43 / 00		A 01 L	5 / 00		A 01 D	29 / 00	74-83	A 01 B	33 / 00	517	A 01 B	35 / 32
268-269	E 21 B	43 / 16	5	A 01 L	9 / 00		A 01 D	31 / 00	84-107	A 01 B	39 / 00		A 01 B	39 / 26
270-270.2	E 21 B	43 / 22	6-10	A 01 L	1 / 04		A 01 D	33 / 00	84-89	A 01 B	39 / 10		A 01 B	39 / 28
270	E 21 B	43 / 27		A 01 L	3 / 04	16	E 01 B	27 / 00		A 01 B	41 / 00	518-521	A 01 B	15 / 16
271	E 21 B	43 / 26	11	A 01 L	1 / 00		A 01 D	13 / 00	90-107	A 01 B	33 / 00		A 01 B	21 / 00
272.1	E 21 B	43 / 24		A 01 L	3 / 00	17-25	A 01 D	15 / 00		A 01 B	35 / 00		A 01 B	23 / 06
272.2	E 21 B	43 / 247		A 01 L	7 / 02		A 01 D	17 / 00	108-109	A 01 B	33 / 04		A 01 B	35 / 28
272.3	E 21 B	43 / 24	12-16	A										