

272	HAVING MEANS TO PREVENT OR DAMPEN LOAD OSCILLATIONS	175	HAVING MEANS FACILITATING ASSEMBLY OR DISASSEMBLY
273	.Antisway (i.e., horizontal movements)	176	.Of sectional vertical support for boom
274	..By triangulation of load cables	177	.Of boom sections
275	..By cyclic control of trolley acceleration or deceleration	178	.Of counterweight from hoist
276	HAVING RANDOM CONDITION SENSOR COMBINED WITH AN INDICATOR OR ALARM OR CONTROLLING MEANS OR DISABLING MEANS	179	.Of traversing hoist from support
277	.Senses crane tilt (e.g., outrigger sensors)	180	..Vehicle support
278	.Means determining overloading produced by load (e.g., strain gauges)	181	...And having motor to swing boom
279	.Sensor regulates counterweight or counterbalancing means	294	ADJUSTABLE TO TRANSPORT OR NONUSE POSITION (E.G., COLLAPSIBLE)
280	.Boom movement stops responsive to overtravel or proximity to powerline	295	.Crane boom supported by foldable or collapsible tower
281	.Hoisting stops upon load being raised to a predetermined position (e.g., anti-two block)	296	..Extensible tower of relatively sliding sections
282	WITH MECHANICAL INDICATOR	297	..Hydraulically pivoted tower or tower sections
283	.With weight indicator	298	.Collapsible inverted "V" frame supports boom rigging
284	WITH MOTOR CONTROL	299	.Collapsible or foldable boom
285	.Remote control or at dual control positions	300	..Vertically swinging boom having pivoted sections
286	.Cyclic operation	301	.Vehicle stabilizing means
287	.Manual fluid valve actuator	302	..Lowered from vehicle body (e.g., outrigger)
288	..Plural fluid motors	303	...Gear or screw drive to extend foot
289	...Controlled by common actuator	304	...Hydraulic means to extend foot
290	.In control cab	305	...Pivoted lever or link to extend foot
291	HAVING OPERATOR SUPPORT OR CAB	306	..Boom or mast attached
292	BOOM POSITION LOCK	307	SHIP MOUNTED OR FLOATING (E.G., A CRANE FIXED TO A PLATFORM ADAPTED TO FLOAT)
293	HAVING SNUBBER OR BOOM BACKSWING STOP	308	.Including counterweight or means to compensate for list, trim or skew of vessel
166	CLOSURE REMOVER	309	.Having horizontally and vertically swinging boom
167	WITH HAUL-IN LINE	310	..Cable actuated horizontally and vertically
168	WITH MEANS TO PROJECT LOAD ENGAGER BEYOND END OF BOOM	311	...Plural booms
169	GROUND WHEEL OPERATED	195	HAVING COUNTERWEIGHT OR COUNTERBALANCING MEANS
170	HAVING CLUTCH OR VARIABLE SPEED TRANSMISSION	196	.Counterweight movable relative to load support
171	.Traveling bridge	197	..Along rectilinear path
172	.Power takeoff	198	...On wheeled carriage
173	.Variable speed transmission	199	HAVING BOOM SHIFTABLE VERTICALLY ALONG A LINEAR PATH
174	.Including means to selectively couple plural hoist functions to common power shaft	200	.Movable along nonvertical rectilinear path

201	.Length of hoisting cable between boom and load decreases automatically as boom is raised	230	.Extensible by movement of boom or boom segment along longitudinal axis thereof
202	.Vertically spaced fastening means along boom support	231	..And vertically swinging
203	.Fluid actuated	232	.And vertically swinging
204	.By mounting on vertically extensible support	233	..Plural booms
312	TRAVELING BRIDGE	234	..With adjacent load-supporting rack
313	.Flexible	235	..Including means for sluing boom as it is swung vertically
314	.Having vertically adjustable track	236	..Including plural actuating means converging toward boom tip to effect both horizontal and vertical swinging
315	.Supporting second traveling bridge	237	..Including means to swing boom vertically
316	.Having plural trolleys	238	...Fluid actuated ram
317	.Having vertically or horizontally swinging boom on bridge or trolley	239	...Flexible cable
318	.Having horizontally swingable track- or load-rotating means on trolley	240	...Having passage for luffing cable through boom supporting member
319	.Having load engager mounted for guided vertical movement beneath trolley	241	...Human or animal powered
320	.Motor fixed to bridge-supporting structure	242	..Having specific engager for load
321	.Trolley mounted motor for trolley traversal via cable means	243	...Grab
322	.Bridge mounted motor for trolley traversal via cable means	244	.And means to swing boom horizontally
323	.Bridge mounted motor for load lifting	245	..Including flexible member driving gear or pulley having axis collinear with boom pivot
324	.Having vertical supporting legs (e.g., gantry)	246	..Gear drive
325	..Overhanging end	247	...Including rack or worm
326	..Having specific engager for load	248	..Human or animal powered
327	.Having specific engager for load	249	.Having fluid ram directly actuating load cable or sheave therefor
223	HAVING HORIZONTALLY SWINGING BOOM OR BRIDGE	250	.Having specific engager for load
224	.Boom mounted for guided horizontal translation (e.g., trolley mounted)	251	.Having passage for hoist cable through boom supporting member
225	.Having trolley thereon	252	.Having specific bearing structure
226	..Having vertical support remote from pivot (i.e., swinging bridge)	253	HAVING VERTICALLY SWINGING BOOM
227	..And vertically swinging	254	.And compensating means to maintain horizontal movement of load
228	..And means acting independently of hoist mechanism to shift trolley	255	.And trolley
		256	.Protruding laterally from vehicle
		257	.Having specific engager for load
		258	.Having means to swing boom vertically
		259	..Fluid actuated ram
		260	..Flexible cable
		261	...Human or animal powered
		262	
		263	

264	..Extensible by movement of boom or boom segment along longitudinal axis thereof	121	...Permanently spaced
71	OVERHEAD	122	..Carriage holders, track clamp
72	..Cable, ship coaling type	123	..Pulley changers
73	..Shiftable track	328	..Self-propelled trolley
74	..Longitudinally movable	329	..Automatic traversing stop
75	..Tilting	330	..Load-handling
76	..Cable	331	...Electric
77	..Load-handling	332	....With grab
78	...Draft-rope	333	....With guide bar
79	....Dumping	334	.....With grab
80	.....Double tackle	335	.....With ladle
81	.....Grab	336	..Nonmotor traverse
82	.....Sling	337	..Nonmotor hoisting
83	...Load suspension	338	..With load-handler
84	....Grab	339	...Discharging
85	....Sling	340	....Automatic
86	..Automatic stop	341	..Fluid hoist
87	..Draft-rope, hoist-rope traverse	342	..Lever hoist
88	...Divided hoist-rope	343	..Surface vehicle
89	...Hook-lowering	344	..Self-propelled
90	...Running track	345	..Drum
91	...Cable return	346	..Trolley having wheels which contact different sides or planes of a beam
92	...Gravity return	347	BOOM OR MAST
93	....Cable	348	..Extensible by sliding sections
94	..Draft-rope, independent traverse	349	..By fluid pressure
95	...Anchored hoist-rope	350	..Having bearing means between extensible sections
96	...Hook-lowering	270	METHODS
97	..Load suspension	271	MISCELLANEOUS
98	...Hoist, carry and lower		
99	...Running rope		
100	...Sheave catch		
101	....Pivoted cable extension		
102	...Sheave-frame catch		
103	....Sliding		
104	....Pivoted		
105	.....Double		
106	...Rope catch		
107	....Sliding		
108	....Pivoted		
109	.....Double		
110	...Rope grip		
111	....Variable elevation		
112	.....Carriage release		
113	.....Side draft		
114	....Coacting sheave		
115	...Ratchet sheave		
116	...Trips, stops and knockers		
117	..Rope carriers		
118	...Cable stop-operated		
119	...Trolley-supported		
120	...Carrier sheave-operated		
			<u>CROSS-REFERENCE ART COLLECTIONS</u>
		901	DOLLEY-TYPE CRANES
			<u>FOREIGN ART COLLECTIONS</u>
		FOR	CLASS-RELATED FOREIGN DOCUMENTS

