

1	<b>MISCELLANEOUS</b>	122.06	..ABS failure detected via time period of sensed wheel lock or wheel speed signal
2	<b>MULTIPLE SYSTEMS</b>	122.07	..Time signal error (no warning)
3	.Fluid pressure and electric	122.08	..Active circuit testing
4	.Fluid pressure and vacuum	122.09	..Pressure failure
5	<b>MULTIPLE FLUID-RECEIVING DEVICES</b>	122.1	...With warning
6.01	.Multiple motors	122.11	...Detected via stroke sensor
6.1	..Brake and door	122.12	...Pump failure detection
7	..Sectional train	122.13	...Auxiliary pressure failure
8	...Multiple brake valves	122.14	...With warning
9	..Supplementary in emergency	122.15	...Pneumatic
9.61	..Separate and simultaneous control	123	.For a tractor-trailer type vehicle
9.62	..Apportioning control	124	..Electric brake
9.63	...Failure responsive	125	.Automatic braking including speed governor or hydraulic retarder
9.64	...Motorcycle	126	..Aircraft
9.65	...Manual	127	.Pneumatic
9.66	...For pneumatic system	128	..For a railway vehicle (e.g., train)
9.67	...Inertia	129	...With speed governor (hydraulic or inertia)
9.68	...Inertia weight	130	...Compared to fixed reference
9.69	...Load	131	...Plural similar inputs
9.71	...Having significant pressure control by front brake	132	...Speed responsive and other conditions (e.g., acceleration, pressure, track hazard, friction)
9.72	...Having multiple pistons affecting fluid flow	133	...Traction control
9.73	...Having significant output feature	134	...Compared to fixed reference
9.74	...Multiple outlets	135	...Automatic
9.75	...Detail	136	...Pseudo-speed
9.76	..Spring operated motor	137	.Motorcycle
10	<b>WITH PUMP</b>	138	.Speed, deceleration, or ABS indication
11	.Pressure control	139	.And traction control
12	.Vacuum	140	..With yaw control
13	<b>MULTIPLE CONTROL</b>	141	..With engine torque power take-off (PTO) control
14	.Double heading	142	..Motor control
15	.Fluid and electric	143	..With four wheel drive or all wheel drive
16	..Automatic electric	144	..Intersecting traction and skid occurrence
17	...Electric impulse	145	..Odd condition (e.g., fuel supply cut-off, modulating valve)
18	<b>EXTERIOR CONTROL</b>	146	.With yaw control
19	.Deadman type	147	..From speed sensors
121	<b>SPEED-CONTROLLED</b>	148	..From split coefficient of friction ( $\mu$ )
122	.With failure responsive means		
122.01	..Traction failure		
122.02	..Antilock failure with warning		
122.03	..Failure related to brake condition (e.g., wear, sensor or switch operation) with indicator		
122.04	..Electric system failure (no warning)		
122.05	..Electronic or electric component (e.g., speed detector, failure sensing) with warning		

149	.Split coefficient of friction ( $\mu$ )	179	..Rotary and linear inertia
150	.Specific $\mu$ determination	180	..Rotary inertia
151	.Traction-motor vehicle	181	..Linear inertia or accelerometer (includes pendulum type)
152	.Regenerative brakes	182	..Accelerometer versus wheel rotation sensor
153	.Lead signal control for antiskid	183	..Specific acceleration or deceleration determined electronically
154	.Multiple control signal with multiple threshold	184	..Acceleration-deceleration versus timing
155	.Braking pressure demand or braking force desire	185	..Sensing deceleration then acceleration
156	.Pulse frequency or time period controlling pressure rebuild	186	.Front-rear axle apportioning or speed difference
157	.Pressure release control	187	.Diagonal wheels apportioning arrangement
158	.Pressure reapply control	188	.All wheel apportioning arrangement (e.g., cross coupling)
159	.Wheel pressure delay compared to reference	189	.Independent control for each wheel
160	.Pressure or specific condition (e.g., deceleration) determines wheel speed instead of direct speed sensor	190	.Four-wheel drive or all wheel drive
161	.Current or voltage ramp proportional to vehicle speed	191	.Odd condition or device detection (e.g., fluid or brake temperature, hill holder, anti-squeal controller, acoustic emission)
162	.Current control of linear piston drive motor	192	..Vehicle inclination
163	.Slip ratio	193	..With sonar or radar type sensor
164	.Slip time versus nonslip time	194	..Hop or bounce (from vibration or oscillation) signal
165	.Variable target slip values	195	..Spurious signal
166	.Wheel speed sensor and braking pressure sensor	196	...For rough road
167	.Brake force or pressure determined from speed sensors	197	..With feeler wheel
168	.Wheel generated pulse signal control (speed sensor)	198	..Speed and vehicle load condition (e.g., cargo)
169	.Left or right speed comparison	199	.Electric control circuit detail
170	.Select high wheel speed versus select low	112	.Torque sensing
171	.Wheel speed versus pseudo vehicle speed (e.g., from deceleration)	113.1	.Having a valve system responsive to a wheel lock signal
172	..By direct feedback or instant wheel control	113.2	..With traction control
173	..By comparison of plural wheel speeds	113.3	...Including booster
174	.Previously stored wheel speed information	113.4	..Including a stroke sensor
175	.Incipient or imminent skid measured	113.5	..With system apportioning control
176	.Antilock control disabled or altered for acceleration or speed ranges	114.1	..Including hydraulic power booster
177	.Sensing jerk, acceleration, or deceleration	114.2	...Parallel boosters
178	..Wheel deceleration to find velocity error	114.3	..Including pneumatic power booster
		115.1	..System controlled by expansible chamber type modulator

115.2	...Having electric control	46	.Augmented feed to motor
115.3	..Having vacuum motor control	47	.Train rear end first
115.4	...Having pump pressure control	48	<b>DIRECT</b>
115.5	...Pump pressure operates fluid motor	49	.Liquid link
		50	<b>MOTORMAN'S VALVES</b>
115.6	...Including flywheel control (e.g., motorcycle type)	51	.Conductor type
		52	.Multiple motors
116.1	..Including pump with system solenoid valve	53	..Engine and train
		54	.Equalizing
116.2	..Having pressure line isolated from master cylinder line	55	..Preliminary discharge
		56	.Details
116.3	..Vehicle wheel operated pump		<b>CHARGING</b>
116.4	..System pump structure detail	57	.Plurality of pressures
117.1	..Spool valve	58	.Reuse
118.1	..Pneumatic (relay or motorman) type	59	.Outlet-pressure control
		60	..Maintaining
119.1	..System controlled by solenoid valve	61	.Intermittent
			.Motor
119.2	...System solenoid valve detail	62	..Motor-movement control
119.3	...Housing for plural solenoids	63	..Failure-system pressure
20	<b>ELECTRIC CONTROL</b>	64	.Auxiliary reservoir
22.1	<b>LOAD CONTROL</b>	65	..Motor remaining charged
22.2	.Empty and load type	66	.Control pipe
22.3	..Alterable for different classes of service	67	..Preventers
			<b>RELEASING</b>
22.4	.Failure responsive	68	.Motor
22.5	.Responsive to fluid pressure spring	69	..Quick
		70	..Venting auxiliary reservoir
22.6	.Railway vehicle	71	..Fluid-pressure retracting
22.7	..Detail	72	..Delayed
22.8	.Detail	73	...Blow down
24.1	<b>INERTIA CONTROL</b>	74	...Graduated
25	<b>AUTOMATIC AND DIRECT</b>	75	..Preventers
26	.Supplementary control pipe	76	...Motorman valve control
27	.Direct on control-pipe reduction	77	...Control-pipe pressure
28	<b>AUTOMATIC</b>	78	...Auxiliary-reservoir control
29	.Supplementary control pipe	79	...Loaded valve
30	.Supplementary reservoir pipe	80	.Auxiliary reservoir
31	.Vacuum	81	.Control pipe
32	.Equilibrium	82	..By action of control-pipe pressure
33	.Equalizing valves		..To chamber
34	..Rotary type	83	
35	.Synchronizing	84.1	<b>FLOW RETARDER</b>
36	..Release	84.2	.Isolation valve
37	..Quick action	85	<b>SUPPLEMENTARY RESERVOIR</b>
38	...Service	86	<b>MISCELLANEOUS OPERATIONS ON CONTROL PIPE</b>
39	...Control pipe to chamber		<b>PULSATION NEUTRALIZERS</b>
40	.Application valve	87	<b>LOCKS</b>
41	.Preliminary valve movement	89	<b>PIPELESS VALVES</b>
42	..Emergency preventers	90	
43	.Slow-reduction emergency		
44	.Secondary service operation		
45	.Positive-movement equalizing valve		

**CROSS-REFERENCE ART COLLECTIONS**

900      **ABS THROTTLE CONTROL**  
901      **ABS CHECK VALVE DETAIL**

**FOREIGN ART COLLECTIONS**

FOR       **CLASS-RELATED FOREIGN DOCUMENTS**

**DIGESTS**

DIG 1    **PRESSURE COMPARISON**  
DIG 2    **BRAKE CONTROL BY PRESSURE  
          COMPARISON**  
DIG 3    .Electrical pressure sensor  
DIG 4    ..Pressure signal used in  
          electrical speed controlled  
          braking circuit  
DIG 5    **ACCELERATION PEAK DETECTION**  
DIG 6    **AXLE DIFFERENTIAL CONTROL**  
DIG 7    **SMALL TIRE DIGEST**  
DIG 8    **ANTICHATTER**  
DIG 9    **PLURAL PROCESSORS**  
DIG 10   **VALVE BLOCK INTEGRATING PUMP,  
          VALVES, SOLENOID, ACCUMULATOR,  
          ETC.**  
DIG 11   **ACCUMULATOR**  
DIG 12   **AIR OVER HYDRAULIC BRAKE SYSTEM**