

3.21	<b>VORTEX-FLOW DRIVE AND CLUTCH</b>	219.1	...Hill-holder
3.22	.With means to effect torque reversal	219.2	....One-way brake
3.23	.With brake	219.3	.....Ball or roller
3.24	..Alternatively operative clutch and brake	219.4	...Emergency or parking brake
3.25	.With additional drive or clutch	219.5	....Parking pawl
3.26	..Simultaneously operative clutches	219.6	....With separate manual operator
3.27	..Alternatively operative clutches	219.7	.....Foot operated
3.28	.Including drive-lockup clutch	220	..Brake control affects transmission change
3.29	..Having fluid-pressure operator	220.1	...Brake application neutralizes transmission
3.3	...With auxiliary source of pressure	220.2	...Park-lock device
3.31	..Having speed-responsive operator	220.3	....Floor-mounted shift lever
3.32	..Alternatively operative drive and clutch	220.4	.....Solenoid operated lock
3.33	..Fluid-pressure operator for engaging clutch	220.5	.....Rotary bushing
3.34	<b>VORTEX-FLOW DRIVE AND BRAKE</b>	220.6	.....Override
3.51	<b>TRANSMISSION CONTROL AND CLUTCH CONTROL</b>	220.7	.....Override
3.52	..Planetary transmission and coaxial clutch	221	..Fluid operated
3.53	..Including separate, reversing pedal	221.1	...Brake and gearing at axle end
3.54	.Common control	222	..Electromagnetic
3.55	..Power-operated clutch	223	.Torque-responsive brake
3.56	...Electromagnetically operated	223.1	..Transversely engaged positive brake
3.57	...Fluid-press operated	223.2	..Ball or roller type brake
3.58	....Electrically triggered	223.3	..With cam mechanism for axially moving brake member
3.59	....Vacuum operated	223.4	..Wrap-spring brake
3.61	..Stepped ratio transmission	224	.Belt or chain transmission
3.62	..With control lever	224.1	..Belt tensioner affects brake operation
3.63	.Interrelated (e.g., with interlock)	224.2	..Belt failure operates brake
215	<b>TRANSMISSION AND BRAKE</b>	224.3	..Belt shipper affects brake operation
216	.Internal resistance brake	225	.Fluid operated
217	.Velocipede	226	.Electromagnetic
217.1	..Back-pedaling brake (e.g., coaster brake)	12 R	<b>CLUTCH AND BRAKE</b>
217.2	...Rotatable crank axle	13 R	.Vehicle type
217.3	...Wheel hub	13 A	..Clutch-released brake holder
217.4	....With change-speed transmission	14	.Same member
217.5	.....Plural sprockets	15	.Automatic check and release
217.6	....With screw operator	16	..Clutch and brake same member
217.7	....Multidisc brake	17 R	.Peripheral brake
218	.Motor vehicle	17 A	..Fluid operator
219	..Transmission control affects brake	17 C	..Electric
		17 D	..Coil
		18 R	.Sliding operation
		18 A	..Fluid operator
		18 B	..Electric and magnetic
		19	.Crank control
		12 A	.Internal resistance
		12 B	.One-way engaging
		12 BA	..Coil spring type
		12 C	.Fluid operator

12 D	.Electric	45.011	.....Including bearing block between clutch races and between balls or rollers
20	<b>CLUTCH AND GEAR</b>		
21	.Reversing		
21.5	<b>FIELD RESPONSIVE FRICTIONAL MEDIA TYPE</b>	45.012	.....Spring integrally formed with cage
22	<b>LATCH OPERATED</b>	45.013	.....Plural integral springs separate from cage
23	.Corn-planter type	45.014	.....Spring and multipart cage
24	.Longitudinally moving transmission member	45.015	.....Spring mounted on projection on cage
25	..Pin	45.016	.....Serpentine spring
26	.Transversely moving transmission member	45.017	....Including separating means on clutch race
27	..Ball or roller	45.018	.....Spring biased ball or roller
28	..Positive	45.019	.....By other than circular helical spring
29	...Rotating key	45.02	.....Including separate force transmitting element between spring and ball, roller, or race
30 R	<b>CLUTCHES</b>	45.1	...Wedging pawl or block
31	.Automatic	45.2	...Two-point gripper
32	..Manual control	46	...Positive
33 R	...Definite-position release	47	...Manual control
33 C	....Coil	41 S	...Spring
34	...Shaft thrust	41 A	...Sprags
35	...Pilot mechanism	48.1	.Plural clutch-assembly
36	...Brake band	48.2	..Including electrically actuated clutch assembly
37	...Transversely moving	48.3	..Diverse clutch-assemblies
38	....Ball or roller	48.4	...Including three or more assemblies
39	....Positive	48.5	...Including one clutch-assembly having interdigitated clutch-elements
40	...Electric	48.6	....And another clutch-assembly having unirotationally engaging clutch elements
41 R	..One-way engaging	48.601	..Having fluid pressure operator
42	...Free-engine type	48.602	...Operator rotatable relative to its clutch-assembly
43	...Reversible	48.603	....Operator coaxial with its clutch-assembly
43.1	....Pivoted pawls	48.604	....Common or interconnected operator(s)
43.2	....Slidable pawls	48.605	.....Operator between clutch-assemblies
44	....Ball or roller	48.606	....Axially spaced coaxial clutch-assemblies
45.001	...Ball or roller	48.607	...Axially spaced coaxial clutch-assemblies
45.002	....Roller has non-spherical, non-cylindrical force transmitting surface		
45.003	....Plural ball or roller sizes or shapes		
45.004	....Plural balls or rollers of same shape and size		
45.005	....Received in recesses in each of two cooperating clutch races		
45.006	.....Including cage		
45.007	.....Including axle for ball or roller		
45.008	.....Balls or rollers spring biased toward engaged state		
45.009	.....Including speed-responsive biasing mechanism		
45.01	.....Biased cage		

48.608	....Plural fluid pressure operators forming nested pistons	53.331	.....Blocker on axially extending stepped pin
48.609	...Axially spaced coaxial clutch-assemblages	53.332	.....Resilient detent pin
48.61	....Plural fluid pressure operators forming nested pistons	53.34	....Outward tooth or lug on friction member
48.611	....Operator coaxial with its clutch-assemblage	53.341	.....With thrust member
48.612	.....Common or interconnected operator(s)	53.342	.....Resilient thrust bar
48.613	.....Operator between clutch-assemblages	53.343	.....Resilient expander ring
48.614	.....Operator between clutch-assemblages	53.35	....Inward tooth or lug on friction member
48.615	....Radially acting operator	53.36	....Radially movable blocker
48.616	...Plural fluid pressure operators forming nested pistons	53.361	....Detent acts as blocker
48.617	....At least one operator coaxial with its clutch-assemblage	53.362	.....Rocker lever actuates friction clutch
48.618	...Operator coaxial with its clutch-assemblage	53.363	....Radially movable friction element acts as blocker
48.619	....Radially spaced coaxial clutch-assemblages	53.364	.....Resilient friction element
48.7	..With means to actuate or deactuate clutch-assemblages sequentially	53.4	...Lock for positive clutch
48.8	..Associated with three or more shafts	53.5	...Axially projecting positive clutch
48.9	...Alternatively operative assemblages	53.51	....Cylindrical pin
48.91	....Having common clutch-element support	53.6	...Transversely moving positive clutch
48.92	..Including unirotationally engaging clutch-elements	54.1	..Torque responsive
49	..Parallel vehicle wheels	54.2	..Hub clutch
50	...Free wheel	54.5	..Cam operated
51	..Reversing	54.51	...Screw operated
52.1	..Progressive engagement	54.52	...Ball or roller type
52.2	..Surface area	55.1	..With overload release coupling
52.3	...Yielding	55.2	..With flexible shaft coupling permitting limited relative rotation
52.4	..Variable force	55.3	...Separate resilient member between clutch element and its shaft
52.5	...Initial engagement causes increase in applied force	55.4	....Fluid damper
52.6	..Yielding	55.5	....Coil spring coaxial with rotation axis
53.1	..Frictional and positive	55.51	.....Radially overlapping convolutions
53.2	..Magnetic or electromagnetic operated friction clutch	55.6	....Plural resilient members
53.3	...With blocker	55.61	.....Coil springs with center line spaced from rotational axis
53.31	....Self-energizing	55.62	.....Center line of coil springs parallel to rotational axis
53.32	....Interposed friction members	55.7	....Coil spring with center line spaced from rotational axis
53.33	....Member extending axially between friction surfaces	56.1	..Overload release
		56.2	...Coil
		56.3	...Fluid-operated clutch
		56.31	....Axially engaged
		56.32	.....Positive
		56.33	.....Ball or roller
		56.4	...Magnetic or electromagnetic

56.41	....Axially engaged	64	.Velocipede free wheel
56.42	.....Positive	65	.Axially and transversely engaging
56.43	.....Ball or roller		
56.5	...Clutch elements remain disengaged after overload corrected	66.1	.Axially engaging
56.51	....Having separate latch to hold clutch elements disengaged	66.2	..Conical or frustoconical
56.52	.....Axially engaged	66.21	...Plural radially spaced surfaces
56.53	.....Positive	66.22	...Spring engaged
56.54	.....Ball or roller	66.23	...Spring released
56.55	....Axially engaged	66.3	..Planar radially extending
56.56	.....Positive	66.31	...Spring engaged
56.57	.....Ball or roller	66.32	...Spring released
56.6	...Axially engaged	69	..Positive
56.61	....Positive	69.1	...Pivoting positive clutch element
56.62	.....Ball or roller	69.2	...Plunger disconnect
54.3	..Fluid operated	69.3	...Pilot pawl
54.4	..Magnetic or electromagnetic	69.4	...Wheel hub clutched to axle
57	..Fluent material and mechanical	69.41	....Fluid pressure
58.1	..Fluent material	69.42	....Electromagnetic
58.2	..Fluid	69.43	....Manual
58.3	...Vane clutch	69.5	...Ball or roller
58.4	...Viscous shear	69.6	...Cylindrical pin
58.41	....Multiple plate	69.61	....Axial pin on only one member
58.42	.....Variable gap or volume	69.62	.....Pin engages aperture in other member
58.43	....Variable gap or volume	69.63	....Radial pin
58.5	....Separate reservoir	69.7	...Axial-radial
58.6	.....Automatic regulation	69.71	....Axially extending projection engages aperture
58.61	.....Magnetic or electric	69.8	...Axial-axial
58.62	.....Temperature and speed	69.81	....Sawtooth
58.63	.....Temperature	69.82	....Square tooth
58.64	.....Coolant and clutching medium	69.83	.....With lead-in
58.65	.....Ambient and clutching medium	69.9	...Radial-radial
58.66	.....Ambient and coolant	69.91	....Outward projection on movable member
58.67	.....Clutching medium	70	..Spreading
58.68	.....Ambient	70.11	..Interposed, mating clutch-elements
58.681	.....Bi-metallic	70.12	...With means to cool or lubricate clutch parts
58.682	.....Spiral	70.13	...With removable or replaceable or interchangeable clutch parts
58.683	.....Resilient or adjustable mounting feature	70.14	...Including surface characteristics of clutch-element
58.684	.....Mounting feature	70.15	....Axially tapered mating surfaces
58.7	....Pump-out feature	70.16	...With torque connection between clutch-element and its shaft
58.8	....Specific valve	70.17	....Resilient torque connection (e.g., for damping vibration)
58.9	...Radial vane		
58.91	....Vaness on inner member		
58.92	.....Spring-biased		
59	..Axially movable piston		
60	..Transversely movable piston		
61	..Gear-pump type		
62	..Plow-lifting type		
63	..Free-engine type		

70.18	.....Including chordally disposed connection	84.6	...Rotary electric motor is clutch actuator
70.19	....Axially slidable connection	84.7	...Mechanical force increasing means
70.2	.....Spline connection for multiple clutch-elements	84.8	...Operator for transversely engaging elements
70.21	...With means to move multiple clutch-elements axially and sequentially	84.81	....Coil spring
70.22	...With means to move clutch-element axially and latch into engaged or disengaged position	84.9	...Operator for axially engaging elements
70.23	..With cam or wedge contacting clutch-element or pressure plate for axial movement thereof	84.91	....Interposed friction elements
70.24	....By cam surface on bell-crank	84.92	....Positively engaging elements
70.251	...With adjustable means to move clutch-element axially (e.g., to compensate for wear)	84.93	....Magnetic flux path spaced from engaging elements
70.252	....Automatic	84.94	....Specified torque transmitting spring
70.26	....Including plural adjusting screws (e.g., to equalize pressure angularly)	84.941	.....Nonmetallic
70.27	...With spring means to move clutch-element axially	84.95	....With slip rings
70.28	....To separate engaged clutch-elements	84.951	.....With pulley or gear
70.29	....And actuator lever pivoted on pressure plate	84.96	....Fixed concentric coil
70.3	..With actuator lever pivoted on pressure plate or back plate to move clutch-element axially	84.961	.....With pulley or gear
71	..Positive	85.01	..Fluid pressure
72	..Interior and exterior	85.02	...Operator force derived from clutch input or output
73	...Opposing	85.03	...Elastic (e.g., diaphragm, pneumatic tube)
74	..Interior	85.04	....Rotating with clutch input or output
75	...Expanding	85.05	.....And causing purely axial movement
76	....Radial	85.06	.....Including flexible friction discs
77	....Split ring	85.07	.....Plural oppositely acting elastic operators
78	....Cam operated	85.08	.....Clutch has flat friction surfaces
79	..Exterior	85.09	.....More than two friction elements
80	...Strap	85.1	.....Plate or diaphragm spring release
81 R	....Multiple folds	85.11	.....Clutch has positively engaging clutch members
81 C	....Coil	85.12	....And causing purely radial movement
82 R	..Operators	85.13	.....Elastic operator integral with radially outer clutch member
83	..Multiple for same clutch	85.14	...Rotatable relative to clutch input and output
84.1	..Electric or magnetic	85.15	....And causing purely axial movement
84.2	...Plural coils	85.16	....And causing purely radial movement
84.21	....Plural armatures	85.17	...Piston and cylinder operator rotating with clutch input or output
84.3	...Including permanent magnet		
84.31	....And electromagnet		
84.4	...Electrostatic		
84.5	...Air gap adjustment		
84.51	....Automatic		

85.18	....Positive clutch	85.47	....Having radially displaceable friction surface
85.19	....Friction clutch	85.48	...Operator rotatable relative to clutch input and output
85.2	....Having friction elements movable axially only	85.49	...And aligned with clutch axis of rotation
85.21	.....Having conical or frustoconical friction surfaces (e.g., cone clutch)	85.5	....Operator acts on clutch through push rod extending coaxially through input or output shaft
85.22	.....Plural radially spaced frustoconical surfaces	85.51	....Operator acts on clutch via diaphragm spring or lever
85.23	.....Having flat friction surfaces	85.52	.....Pull-to-release type clutch
85.24	.....More than two friction elements	85.53	....Details of fluid operator
85.25	.....Including balance chamber	85.54	.....Having particular seal
85.26	.....Cam mechanism between piston and friction element	85.55	....Details of master cylinder
85.27	.....Auxiliary exhaust or relief passage from piston chamber	85.56	...Operator spaced from and parallel to clutch axis of rotation
85.28	.....Fluid escape from piston chamber by rotation-induced pressure	85.57	...Fluid released clutch
85.29	.....In piston	85.58	....By vacuum
85.3	.....Valve in passage	85.59	...Details of fluid operator
85.31	.....Valve in passage	85.6	...Details of master cylinder
85.32	.....Variable fluid contacting piston area	85.61	...Cooling or lubricating
85.33	.....Axially stationary piston, moving cylinder	85.62	...Having wear compensator
85.34	.....Cushioning element between piston and friction element	85.63	...Including fluid pressure control
85.35	.....Operator acts on friction elements via diaphragm spring or lever	89.1	..Weight operated
85.36	.....Electric or magnetic release	89.2	..Spring engaged
85.37	.....Fluid released clutch	90	...Electric release
85.38	.....And fluid pressure engaged	89.21	...Cam release
85.39	.....Spring released clutch	89.22	...Belleville disc spring
85.4	.....Release spring between discs	89.23	....Push-type
85.41	.....Coil spring	89.24	....Pull-type
85.42	.....Encircling clutch axis of rotation	89.25	....Geometric configuration
85.43	.....Having particular friction element structure	89.26	...Plural coil springs spaced from clutch axis
85.44	.....Having particular piston seal	89.27	...Coil spring coaxial to clutch axis
85.45	.....Piston has interrupted engagement face	89.28	....Transversely engaged
85.46	.....Piston has non-planar engagement face	89.29	...Quick throw spring
		92	..One-direction apply and release
		93 R	..Cam
		93 A	...Axially thrusting cams rotatable about clutch axis
		93 B	...Axially moving cam acting on pivoted lever
		93 C	...Axially moving cam acting on transversely moving wedge or clutch member
		94	..Screw
		95	..Handwheel
		96	..Central pin
		97	...Screw operated
		98	..Shipper saddles

99 R	..Lever systems	103 FA	...Fluid pressure engaged with centrifugal valve
99 A	...Levers mounted on axially engaging clutch	82 P	..Rack and pinion operator
99 B	...Levers mounted on transversely engaging clutch	82 T	..Temperature operator
99 S	...Stationary levers	30 W	.Warning, indicating, and signal devices
100	..Follow-up	30 V	.Vibration dampers
101	..Releasing		<b>ELEMENTS</b>
102	..Check of driven member	200	.Clutch element resiliently carried on hub
103 R	..Speed responsive	201	..Speed-responsive
104 R	...Fixed-speed release	202	..Manually adjustable
104 B	...Transversely engaged-interior	203	..Coil spring detail
104 C	...Transversely engaged-exterior	204	..Specified bushing
104 F	...Fluid clutches and operators	205	..Separate seat detail
105 R	...Fixed-speed engagement	206	..Relatively axially movable hub sections
105 A	...Centrifugal (fluid or powder) nonpivoted weights (radially movably or slidable) i.e., mercury clutch	207	..Circumferential resilience
105 B	...Axially engaged with nonpivoted weights-weights movable radially or slidable	208	...With fluid damping
105 BA	...Transversely engaged with nonpivoted weights	209	...Nonmetallic
105 BB	...Transversely engaged positive with nonpivoted weights	210	....Interposed friction element
105 C	...Axially engaged with pivoted weights	210.1	.....Biasing means
105 CP	...Weights pivoted on axis parallel to clutch axis-axially engaged	211	....And coil spring
105 CS	...Single pair clutching elements axially engaged with pivoted weights	212	...Coil spring
105 CD	...Transversely expanding clutch with pivoted weights	213	....Plural helical coil spring damping stages
105 CE	...Transversely engaged-pivoted weights and clutching elements movable separately	213.1	.....Plural axially spaced springs
105 CF	...Transversely contracting	213.11	.....Interposed friction element
105 F	...Fluid controls for centrifugal clutches	213.12	.....Biasing means
106 R	...Release	213.2	....Plural radially spaced springs in a common radial plane
106 F	...Devices to prevent fluid clutches from being operated by centrifugal forces acting on fluid	213.21	.....Interposed friction element
103 A	...Centrifugal operated, axially engaged	213.22	.....Biasing means
103 B	...Centrifugal operator transversely engaged	213.3	....Interposed friction element
103 C	...Acceleration and inertia responsive	213.31	.....Biasing means
103 F	...Fluid operated	214	....Interposed friction element
		214.1	....Biasing means
		107 R	.Engaging surfaces
		108	..Positive
		107 M	..Material
		107 T	..Transversely engaging
		107 C	..Clutch plate axially compressible
		109 R	.Thrust members, retarders, and stops
		109 A	..Resilient operators and pressure plates
		109 B	..Resilient backing plates
		109 F	..Cushioning devices for fluid operators
		109 D	..Dashpot

- |        |  |        |   |
|--------|--|--------|---|
| 110 R  | .Shafts, bearings, and adjusting devices   | 113.35 | ...With change of coolant flow during disengagement |
| 110 B  | ..Bearings   | 113.36 | ...Grooved surfaces                                 |
| 110 S  | ..Shafts for removable clutches or discs   | 113.4  | ..Thermal insulating                                |
| 111.1  | ..Wear compensators  | 113.5  | ..Lubrication of ancillary clutch parts             |
| 111.11 | ..Compensator in actuating mechanism outside of the clutch (EPO)                                     | 114 R  | .Locks  |
| 111.12 | ...Automatic   | 114 T  | ..Interlocking clutch teeth or splines              |
| 111.13 | ..Compensator in or near release bearing (EPO)   | 115    | .Supports   |
| 111.14 | ...Automatic   | 116.5  | <b>STOP MECHANISM</b>                               |
| 111.15 | ..Compensator on or inside clutch cover (e.g., acting on diaphragm or pressure plate) (EPO)          | 125 R  | .Material control                                   |
| 111.16 | ...Automatic   | 126    | ..Sheet material                                    |
| 111.17 | ...Worm mechanism  | 127    | ...Electrical                                       |
| 111.18 | ...Relatively rotatable cam rings  | 128    | ...Pneumatic  |
| 111.19 | ....Between cover and diaphragm spring   | 125 A  | ..Power stop-material control-electrical            |
| 111.2  | ....Between diaphragm spring and pressure plate  | 125 B  | ..Mechanical  |
| 111.3  | .....Having clearance sensor bridging gap between clutch members and moveable only during engagement | 125 C  | ..Pneumatic   |
| 111.4  | ....Having clearance sensor bridging gap between clutch members and moveable only during engagement  | 125 D  | ..Granular material                                 |
| 111.5  | ...Relatively rotatable cam rings  | 125 E  | ..Work start  |
| 111.6  | ...Threaded element centered on clutch axis  | 125 F  | ..Length of material stop                           |
| 111.7  | ...Threaded in clutch cover  | 129 R  | .Safety device                                      |
| 112    | .Casings   | 130    | ..Hand protector                                    |
| 113.1  | ..Lubricating, insulating, or cooling  | 131 R  | ...Two hand   |
| 113.2  | ..Air cooling  | 131 H  | ...Hand and foot                                    |
| 113.21 | ...Heat radiating structure  | 132    | ...Delayed action drive                             |
| 113.22 | ...Grooved surfaces  | 133    | ..Automatic guard                                   |
| 113.23 | ...Air directing structure   | 134    | ...Punch-press type                                 |
| 113.24 | ...Rotating cover  | 135    | ...Cover  |
| 113.25 | ...Spring  | 136    | ...Centrifugal-machine type                         |
| 113.26 | ...Clutch plate  | 137    | ...Disabled transmission                            |
| 113.3  | ..Liquid cooled or lubricated clutch surfaces  | 129 A  | ..Electrical  |
| 113.31 | ...Entire coolant path is spaced from clutch surfaces  | 129 B  | ..Pneumatic   |
| 113.32 | ...Overrunning clutch  | 138    | .Limit stop   |
| 113.33 | ...Positive  | 139    | ..Rotary-member control                             |
| 113.34 | ...Lubricant or coolant between engaging surfaces  | 140    | ...Speed responsive                                 |
|        |  | 141    | ...Screw  |
|        |  | 142 R  | ...Electrical                                       |
|        |  | 142 A  | ...Radio tuner type                                 |
|        |  | 143    | ..Reciprocating-member control                      |
|        |  | 144    | .Drive release and brake                            |
|        |  | 145    | ..Multiple clutch                                   |
|        |  | 146    | ..Change speed                                      |
|        |  | 147    | ..Speed responsive                                  |
|        |  | 148    | ..Positive stop                                     |
|        |  | 149    | ...Cushioned  |
|        |  | 150    | .Overload release                                   |

**FOREIGN ART COLLECTIONS**

FOR 000 CLASS-RELATED FOREIGN DOCUMENTS



Any foreign patents or non-patent literature from subclasses that have been reclassified have been transferred directly to FOR Collections listed below. These Collections contain ONLY foreign patents or non-patent literature. The parenthetical references in the Collection titles refer to the abolished subclasses from which these Collections were derived.

- CLUTCHES (192/30)**  
 .Operators (192/82 R)  
 FOR 100 ..Electric (192/84 R)  
 FOR 101 **TRANSMISSION CONTROL AND BRAKE (192/4 R)**  
 FOR 102 .Back-pedaling brake (192/5)  
 FOR 103 ..Hub brake (192/6 R)  
 FOR 104 ...With change speed transmission (192/6 A)  
 FOR 105 ...Rotatable axle (192/6 B)  
 FOR 106 .Automatic brake (192/7)  
 FOR 107 ..Responsive to drive release (192/8/R)  
 FOR 108 ...Cable (192/8 A)  
 FOR 109 ...Coil brake (192/8 C)  
 FOR 110 .Electric control (192/9)  
 FOR 111 .Belt shipper (192/10)  
 FOR 112 .Belt tightener (192/11)  
 FOR 113 .Automatic type (192/4 A)  
 FOR 114 .Internal resistance brake (192/4 B)  
 FOR 115 .Forward and reverse gearing (192/4 C)  
**CLUTCHES (192/30)**  
 .Axially engaging (192/66.1)  
 ..Interposed, mating clutch-elements (192/70.11)  
 FOR 116 ...With adjustable means to move clutch-element axially (e.g., to compensate for wear) (192/70.25)  
**ELEMENTS**  
 FOR 117 .Wear compensators (192/111)  
**CLUTCHES (192/30)**  
 .Operators (192/82 R)  
 FOR 118 ..Fluid pressure (192/85 R)  
 FOR 119 ...Double acting (192/86)  
 FOR 120 ...Multiple clutches (192/87.1)  
 FOR 121 ....Having independent operators (192/87.11)

- FOR 122 .....Responsive to rotational speed of clutch-element (192/87.12)  
 FOR 123 .....With selective distributor for fluid pressure (192/87.13)  
 FOR 124 ....Alternatively operative clutches (192/87.14)  
 FOR 125 .....Clutches coaxial with operators (192/87.15)  
 FOR 126 .....Common or interconnected operator(s) (192/87.16)  
 FOR 127 .....Operator between clutches (192/87.17)  
 FOR 128 .....With selective distributor for fluid pressure (192/87.18)  
 FOR 129 .....Having neutral position (192/87.19)  
 FOR 130 ...Flexible motor (192/88 R)  
 FOR 131 ...Flexible fluid motor-axially engaged (192/88 A)  
 FOR 132 ...Radially engaged (192/88 B)  
 FOR 133 ...Axially engaging-rotating motor and clutch (192/85 A)  
 FOR 134 ...Axially engaging clamping rotating motor and clutch (192/85 AA)  
 FOR 135 ...Axially engaging spreading rotating motor and clutch (192/85 AB)  
 FOR 136 ...Transversely engaging rotating motor and clutch (192/85 AT)  
 FOR 137 ...Clutch and nonrotating motor (192/85 C)  
 FOR 138 ...Clutch and nonrotating motor (192/85 CA)  
 FOR 139 ...Centrifugal fluid clutches (192/85 F)  
 FOR 140 ...Vacuum clutches and operators (192/85 V)  
 FOR 141 ...Fluid release (192/91R)  
 FOR 142 ....Motor concentric with clutch shaft (192/91 A)  
 .Automatic (192/31)  
 ..One-way engaging (192/41 R)  
 FOR 143 ...Ball or roller (192/45)

**DIGESTS**

- DIG 1 **REMOVABLE MEMBERS**  
 DIG 2 **UNIVERSAL JOINT**

