Symbol	Typ	Titel
F	**Sektion**	**SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING**
F16	**Klasse**	**ENGINEERING ELEMENTS OR UNITS; GENERAL MEASURES FOR PRODUCING AND MAINTAINING EFFECTIVE FUNCTIONING OF MACHINES OR INSTALLATIONS ; THERMAL INSULATION IN GENERAL**
F16D	**Unterklasse**	**COUPLINGS FOR TRANSMITTING ROTATION; CLUTCHES; BRAKES [2]**
		Couplings (fluid couplings F16D 31/00-F16D 39/00; couplings or joints specially adapted for deep-drilling rods or sucker rods E21B; for transmitting motion through a wall without relatively-moving surfaces F16J 15/50)
F16D 1/00	**Hauptgruppe**	**Couplings for rigidly connecting two coaxial shafts or other movable machine elements (attachment of wheels to axles for railway carriages B60B; for attachment of cranks to their shafts F16C 3/10)**
F16D 1/02	1-Punkt Untergruppe	. for connecting two abutting shafts or the like
F16D 1/027	2-Punkt Untergruppe	. . non-disconnectable, e.g. involving gluing, welding or the like [6]
F16D 1/033	2-Punkt Untergruppe	. . by clamping together two faces perpendicular to the axis of rotation, e.g. with bolted flanges [6]
F16D 1/04	2-Punkt Untergruppe	. . with clamping hub; with hub and longitudinal key
F16D 1/05	3-Punkt Untergruppe	. . . with radial clamping due to axial loading of at least one pair of conical surfaces [5]
F16D 1/06	1-Punkt Untergruppe	. for attachment of a member on a shaft or on a shaft-end (attachment of marine propellers on shafts B63H 23/34)
F16D 1/064	2-Punkt Untergruppe	. . non-disconnectable [6]
F16D 1/068	3-Punkt Untergruppe	. . . involving gluing, welding or the like [6]
F16D 1/072	3-Punkt Untergruppe	. . . involving plastic deformation (plastic welding F16D 1/068) [6]
F16D 1/076	2-Punkt Untergruppe	. . by clamping together two faces perpendicular to the axis of rotation, e.g. with bolted flanges [6]
F16D 1/08	2-Punkt Untergruppe	. . with clamping hub; with hub and longitudinal key
F16D 1/09	3-Punkt Untergruppe	. . . with radial clamping due to axial loading of at least one pair of conical surfaces [5]
F16D 1/091	*4-Punkt Untergruppe*	*. . . . and comprising a chamber including a tapered piston moved axially by fluid pressure to effect clamping [2006.01]*
F16D 1/092	*4-Punkt Untergruppe*	*. . . . the pair of conical mating surfaces being provided on the coupled hub and shaft [2006.01]*
F16D 1/093	*4-Punkt Untergruppe*	*. . . . using one or more elastic or segmented conical rings forming at least one of the conical surfaces, the rings being expanded or contracted to effect clamping (F16D 1/091 takes precedence) [2006.01]*
F16D 1/094	*5-Punkt Untergruppe*	*. . . . . using one or more pairs of elastic or segmented rings with mutually mating conical surfaces, one of the mating rings being contracted and the other being expanded [2006.01]*
F16D 1/095	*5-Punkt Untergruppe*	*. . . . . with clamping effected by ring contraction only [2006.01]*
F16D 1/096	*6-Punkt Untergruppe*	*. . . . . the ring or rings being located between the shaft and the hub [2006.01]*
F16D 1/097	*5-Punkt Untergruppe*	*. . . . . with clamping effected by ring expansion only, e.g. with an expanded ring located between hub and shaft [2006.01]*
F16D 1/10	1-Punkt Untergruppe	. Quick-acting couplings in which the parts are connected by simply bringing them together axially
F16D 1/104	2-Punkt Untergruppe	. . having retaining means rotating with the coupling and acting only by friction [6]

Symbol	Typ	Titel
F16D 1/108	2-Punkt Untergruppe	. . having retaining means rotating with the coupling and acting by interengaging parts, i.e. positive coupling [6]
F16D 1/112	3-Punkt Untergruppe	. . . the interengaging parts comprising torque-transmitting surfaces, e.g. bayonet joints [6]
F16D 1/116	3-Punkt Untergruppe	. . . the interengaging parts including a continuous or interrupted circumferential groove in the surface of one of the coupling parts (circlips for retaining hubs on shafts F16B 21/18) [6]
F16D 1/12	1-Punkt Untergruppe	. allowing adjustment of the parts about the axis (during motion F16D 3/10)
F16D 3/00	**Hauptgruppe**	**Yielding couplings, i.e. with means permitting movement between the connected parts during the drive (couplings disconnectable simply by axial movement F16D 1/10; slip couplings F16D 7/00)**
F16D 3/02	1-Punkt Untergruppe	. adapted to specific functions (universal joints, see the appropriate groups)
F16D 3/04	2-Punkt Untergruppe	. . specially adapted to allow radial displacement, e.g. Oldham couplings
F16D 3/06	2-Punkt Untergruppe	. . specially adapted to allow axial displacement
F16D 3/08	2-Punkt Untergruppe	. . Couplings for intersecting shafts, provided with intermediate bars bent in an angle corresponding with the angle of intersection
F16D 3/10	2-Punkt Untergruppe	. . Couplings with means for varying the angular relationship of two coaxial shafts during motion
F16D 3/12	2-Punkt Untergruppe	. . specially adapted for accumulation of energy to absorb shocks or vibration (by making use of fluid elements F16D 3/80)
F16D 3/14	2-Punkt Untergruppe	. . combined with a friction coupling for damping vibration or absorbing shock
F16D 3/16	1-Punkt Untergruppe	. Universal joints in which flexibility is produced by means of pivots or sliding or rolling connecting parts
F16D 3/18	2-Punkt Untergruppe	. . the coupling parts having slidably-interengaging teeth
F16D 3/19	3-Punkt Untergruppe	. . . of resilient material or structure
F16D 3/20	2-Punkt Untergruppe	. . one coupling part entering a sleeve of the other coupling part and connected thereto by sliding or rolling members (F16D 3/18, F16D 3/24 take precedence) [4, 5]
F16D 3/202	3-Punkt Untergruppe	. . . one coupling part having radially projecting pins, e.g. tripod joints [5]
F16D 3/205	4-Punkt Untergruppe	. . . . the pins extending radially outwardly from the coupling part [5]
F16D 3/207	4-Punkt Untergruppe	. . . . the pins extending radially inwardly from the coupling part [5]
F16D 3/22	3-Punkt Untergruppe	. . . the rolling members being balls, rollers, or the like, guided in grooves or sockets in both coupling parts [3, 5]
F16D 3/221	4-Punkt Untergruppe	. . . . the rolling members being located in sockets in one of the coupling parts [5]
F16D 3/223	4-Punkt Untergruppe	. . . . the rolling members being guided in grooves in both coupling parts, e.g. Rzeppa joints [5]
F16D 3/224	5-Punkt Untergruppe	. . . . . the groove centre-lines on each coupling part lying on a sphere [5]
F16D 3/226	5-Punkt Untergruppe	. . . . . the groove centre-lines in each coupling part lying on a cylinder co-axial with the respective coupling part [5]
F16D 3/227	6-Punkt Untergruppe	. . . . . the joints being telescopic [5]
F16D 3/229	5-Punkt Untergruppe	. . . . . Prismatic coupling parts having each groove centre-line lying on planes parallel to the axis of the respective coupling part (F16D 3/224, F16D 3/226 take precedence) [5]
F16D 3/24	2-Punkt Untergruppe	. . comprising balls, rollers, or the like, between overlapping driving faces, e.g. cogs, on both coupling parts [3, 5]

Symbol	Typ	Titel
F16D 3/26	2-Punkt Untergruppe	. . Hooke's joints or other joints with an equivalent intermediate member to which each coupling part is pivotally or slideably connected (F16D 3/18, F16D 3/20 take precedence)
F16D 3/27	3-Punkt Untergruppe	. . . with two or more intermediate members pivotally or slidably connected together, e.g. tongue-and-slipper type joints [5]
F16D 3/28	3-Punkt Untergruppe	. . . in which the interconnecting pivots include elastic members
F16D 3/30	3-Punkt Untergruppe	. . . in which the coupling is specially adapted to constant velocity-ratio
F16D 3/32	4-Punkt Untergruppe	. . . . by the provision of two intermediate members each having two relatively- perpendicular trunnions or bearings
F16D 3/33	5-Punkt Untergruppe	. . . . . with ball or roller bearings
F16D 3/34	4-Punkt Untergruppe	. . . . parts being connected by ridges, pins, balls, or the like guided in grooves or between cogs
F16D 3/36	3-Punkt Untergruppe	. . . in which each pivot between the coupling parts and the intermediate member comprises a single ball
F16D 3/38	3-Punkt Untergruppe	. . . with a single intermediate member with trunnions or bearings arranged on two axes perpendicular to one another (F16D 3/36 takes precedence)
F16D 3/40	4-Punkt Untergruppe	. . . . with intermediate member provided with two pairs of outwardly-directed trunnions on intersecting axes
F16D 3/41	5-Punkt Untergruppe	. . . . . with ball or roller bearings
F16D 3/42	4-Punkt Untergruppe	. . . . with ring-shaped intermediate member provided with bearings or inwardly-directed trunnions
F16D 3/43	5-Punkt Untergruppe	. . . . . with ball or roller bearings
F16D 3/44	3-Punkt Untergruppe	. . . the intermediate member being connected to the coupling parts by ridges, pins, balls, or the like guided in grooves or between cogs
F16D 3/46	4-Punkt Untergruppe	. . . . each coupling part embracing grooves or ridges on the intermediate member
F16D 3/48	2-Punkt Untergruppe	. . one coupling part having pins arranged parallel to the axis and entering holes in the other coupling part
F16D 3/50	1-Punkt Untergruppe	. with the coupling parts connected by one or more intermediate members (F16D 3/16 takes precedence)
F16D 3/52	2-Punkt Untergruppe	. . comprising a continuous strip, spring, or the like engaging the coupling parts at a number of places
F16D 3/54	2-Punkt Untergruppe	. . Couplings comprising a chain or strip surrounding two wheels arranged side by side and provided with teeth or the equivalent
F16D 3/56	2-Punkt Untergruppe	. . comprising elastic metal lamellae, elastic rods, or the like, e.g. arranged radially or parallel to the axis, the members being shear-loaded collectively by the total load
F16D 3/58	3-Punkt Untergruppe	. . . the intermediate members being made of rubber or like material
F16D 3/60	2-Punkt Untergruppe	. . comprising pushing or pulling links attached to both parts (F16D 3/64 takes precedence)
F16D 3/62	3-Punkt Untergruppe	. . . the links or their attachments being elastic
F16D 3/64	2-Punkt Untergruppe	. . comprising elastic elements arranged between substantially-radial walls of both coupling parts
F16D 3/66	3-Punkt Untergruppe	. . . the elements being metallic, e.g. in the form of coils
F16D 3/68	3-Punkt Untergruppe	. . . the elements being made of rubber or similar material
F16D 3/70	2-Punkt Untergruppe	. . comprising elastic elements arranged in holes in one coupling part and surrounding pins on the other coupling part
F16D 3/72	2-Punkt Untergruppe	. . with axially-spaced attachments to the coupling parts (F16D 3/56 takes precedence)

Symbol	Typ	Titel
F16D 3/74	3-Punkt Untergruppe	. . . the intermediate member or members being made of rubber or other flexible material
F16D 3/76	2-Punkt Untergruppe	. . shaped as an elastic ring centered on the axis, surrounding a portion of one coupling part and surrounded by a sleeve of the other coupling part
F16D 3/77	3-Punkt Untergruppe	. . . the ring being metallic
F16D 3/78	2-Punkt Untergruppe	. . shaped as an elastic disc or flat ring, arranged perpendicular to the axis of the coupling parts, different sets of spots of the disc or ring being attached to each coupling part, e.g. Hardy couplings
F16D 3/79	3-Punkt Untergruppe	. . . the disc or ring being metallic
F16D 3/80	1-Punkt Untergruppe	. in which a fluid is used (fluid couplings allowing continuous slip F16D 31/00-F16D 35/00)
F16D 3/82	2-Punkt Untergruppe	. . with a coupling element in the form of a pneumatic tube (similar clutches F16D 25/04)
F16D 3/84	1-Punkt Untergruppe	. Shrouds, e.g. casings, covers; Sealing means specially adapted therefor
F16D 5/00	**Hauptgruppe**	**Impulse couplings, i.e. couplings that alternately accelerate and decelerate the driven member**
F16D 7/00	**Hauptgruppe**	**Slip couplings, e.g. slipping on overload, for absorbing shock (combined with yielding shaft couplings F16D 3/14; fluid slip couplings F16D 31/00-F16D 35/00)**
F16D 7/02	1-Punkt Untergruppe	. of the friction type (couplings in which overload initiates a decrease of coupling pressure or a disconnection, see the relevant groups for clutches)
F16D 7/04	1-Punkt Untergruppe	. of the ratchet type (similar gearings based on repeated accumulation and delivery of inertia-energy F16H 33/08)
F16D 7/06	2-Punkt Untergruppe	. . with intermediate balls or rollers
F16D 7/08	3-Punkt Untergruppe	. . . moving axially between engagement and disengagement [5]
F16D 7/10	3-Punkt Untergruppe	. . . moving radially between engagement and disengagement [5]
F16D 9/00	**Hauptgruppe**	**Couplings with safety member for disconnecting**
F16D 9/02	1-Punkt Untergruppe	. by thermal means, e.g. melting member [6]
F16D 9/04	1-Punkt Untergruppe	. by tensile breaking [6]
F16D 9/06	1-Punkt Untergruppe	. by breaking due to shear stress [6]
F16D 9/08	2-Punkt Untergruppe	. . over a single area encircling the axis of rotation, e.g. shear necks on shafts (F16D 9/10 takes precedence) [6]
F16D 9/10	2-Punkt Untergruppe	. . having a part movable after disconnection so as to provide reconnection, e.g. advanceable shear pins [6]
		Clutches with mechanically-actuated clutching members (automatic clutches F16D 41/00-F16D 45/00; external control F16D 48/00)
F16D 11/00	**Hauptgruppe**	**Clutches in which the members have interengaging parts (arrangements for synchronisation F16D 23/02)**
F16D 11/02	1-Punkt Untergruppe	. disengaged by a contact of a part mounted on the clutch with a stationarily-mounted member
F16D 11/04	2-Punkt Untergruppe	. . with clutching members movable only axially
F16D 11/06	2-Punkt Untergruppe	. . with clutching members movable otherwise than only axially, e.g. rotatable keys
F16D 11/08	1-Punkt Untergruppe	. actuated by moving a non-rotating part axially (actuating-mechanisms in the relevant groups)
F16D 11/10	2-Punkt Untergruppe	. . with clutching members movable only axially
F16D 11/12	2-Punkt Untergruppe	. . with clutching members movable otherwise than only axially

Symbol	Typ	Titel
F16D 11/14	1-Punkt Untergruppe	. with clutching members movable only axially (F16D 11/02, F16D 11/08 take precedence) [5]
F16D 11/16	1-Punkt Untergruppe	. with clutching members movable otherwise than only axially (F16D 11/02, F16D 11/08 take precedence) [5]
F16D 13/00	**Hauptgruppe**	**Friction clutches (arrangements for synchronisation F16D 23/02)**
F16D 13/02	1-Punkt Untergruppe	. disengaged by the contact of a part mounted on the clutch with a stationarily-mounted member
F16D 13/04	1-Punkt Untergruppe	. with means for actuating or keeping engaged by a force derived at least partially from one of the shafts to be connected (automatic clutches F16D 43/00)
F16D 13/06	2-Punkt Untergruppe	. . with clutching members movable otherwise than only axially (F16D 13/08, F16D 13/12 take precedence)
F16D 13/08	1-Punkt Untergruppe	. with a helical band or equivalent member, which may be built-up from linked parts, with more than one turn embracing a drum or the like, with or without an additional clutch actuating the end of the band (F16D 13/02 takes precedence; similar freewheel clutches F16D 41/20; similar brakes F16D 49/02)
F16D 13/10	1-Punkt Untergruppe	. with clutching members co-operating with the periphery of a drum, a wheel-rim, or the like (F16D 13/02-F16D 13/08 take precedence; similar brakes F16D 49/00)
F16D 13/12	1-Punkt Untergruppe	. with an expansible band or coil co-operating with the inner surface of a drum or the like (F16D 13/02 takes precedence; similar brakes F16D 51/02)
F16D 13/14	1-Punkt Untergruppe	. with outwardly-movable clutching members co-operating with the inner surface of a drum or the like (F16D 13/02, F16D 13/06, F16D 13/12 take precedence; similar brakes F16D 51/00)
F16D 13/16	2-Punkt Untergruppe	. . shaped as radially-movable segments
F16D 13/18	2-Punkt Untergruppe	. . shaped as linked or separately-pivoted segments
F16D 13/20	1-Punkt Untergruppe	. with clutching members co-operating with both the periphery and the inner surface of a drum or wheel-rim (similar brakes F16D 53/00)
F16D 13/22	1-Punkt Untergruppe	. with axially-movable clutching members (similar brakes F16D 55/00)
F16D 13/24	2-Punkt Untergruppe	. . with conical friction surfaces
F16D 13/26	3-Punkt Untergruppe	. . . in which the or each axially-movable member is pressed exclusively against an axially-located member
F16D 13/28	4-Punkt Untergruppe	. . . . with means for increasing the effective force between the actuating sleeve or equivalent member and the pressure member
F16D 13/30	5-Punkt Untergruppe	. . . . . in which the clutching pressure is produced by springs only
F16D 13/32	3-Punkt Untergruppe	. . . in which two or more axially-movable members are pressed from one side towards an axially-located member
F16D 13/34	4-Punkt Untergruppe	. . . . with means for increasing the effective force between the actuating sleeve or equivalent member and the pressure member
F16D 13/36	5-Punkt Untergruppe	. . . . . in which the clutching pressure is produced by springs only
F16D 13/38	2-Punkt Untergruppe	. . with flat clutching surfaces, e.g. discs
F16D 13/40	3-Punkt Untergruppe	. . . in which the or each axially-movable member is pressed exclusively against an axially-located member
F16D 13/42	4-Punkt Untergruppe	. . . . with means for increasing the effective force between the actuating sleeve or equivalent member and the pressure member
F16D 13/44	5-Punkt Untergruppe	. . . . . in which the clutching pressure is produced by springs only
F16D 13/46	3-Punkt Untergruppe	. . . in which two axially-movable members, of which one is attached to the driving side and the other to the driven side, are pressed from one side towards an axially-located member

Symbol	Typ	Titel
F16D 13/48	4-Punkt Untergruppe	. . . . with means for increasing the effective force between the actuating sleeve or equivalent member and the pressure member
F16D 13/50	5-Punkt Untergruppe	. . . . . in which the clutching pressure is produced by springs only
F16D 13/52	3-Punkt Untergruppe	. . . Clutches with multiple lamellae
F16D 13/54	4-Punkt Untergruppe	. . . . with means for increasing the effective force between the actuating sleeve or equivalent member and the pressure member
F16D 13/56	5-Punkt Untergruppe	. . . . . in which the clutching pressure is produced by springs only
F16D 13/58	1-Punkt Untergruppe	. Details
F16D 13/60	2-Punkt Untergruppe	. . Clutching elements (friction lining or attachment thereof F16D 69/00)
F16D 13/62	3-Punkt Untergruppe	. . . Clutch-bands; Clutch-shoes; Clutch-drums (brake-bands, brake-shoes, brake-drums F16D 65/00)
F16D 13/64	3-Punkt Untergruppe	. . . Clutch-plates; Clutch-lamellae (brake-plates, brake-lamellae F16D 65/12)
F16D 13/66	4-Punkt Untergruppe	. . . . of conical shape
F16D 13/68	4-Punkt Untergruppe	. . . . Attachments of plates or lamellae to their supports
F16D 13/69	4-Punkt Untergruppe	. . . . Arrangements for spreading lamellae in released state
F16D 13/70	2-Punkt Untergruppe	. . Pressure members, e.g. pressure plates, for clutch-plates or lamellae; Guiding arrangements for pressure members
F16D 13/71	3-Punkt Untergruppe	. . . in which the clutching pressure is produced by springs only
F16D 13/72	2-Punkt Untergruppe	. . Features relating to cooling
F16D 13/74	2-Punkt Untergruppe	. . Features relating to lubrication
F16D 13/75	2-Punkt Untergruppe	. . Features relating to adjustment, e.g. slack adjusters
F16D 13/76	1-Punkt Untergruppe	. specially adapted to incorporate with other transmission parts, i.e. at least one of the clutch parts also having another function, e.g. being the disc of a pulley
F16D 15/00	**Hauptgruppe**	**Clutches with wedging balls or rollers or with other wedgeable separate clutching members (freewheels, freewheel clutches F16D 41/00)**
F16D 17/00	**Hauptgruppe**	**Clutches in which the drive is transmitted solely by virtue of the eccentricity of the contacting surfaces of clutch members which fit one around the other**
F16D 19/00	**Hauptgruppe**	**Clutches with mechanically-actuated clutching members not otherwise provided for**
F16D 21/00	**Hauptgruppe**	**Systems comprising a plurality of mechanically-actuated clutches (for synchronisation F16D 23/04)**
F16D 21/02	1-Punkt Untergruppe	. for interconnecting three or more shafts or other transmission members in different ways (in endless-track vehicles B62D)
F16D 21/04	2-Punkt Untergruppe	. . with a shaft carrying a number of rotatable transmission members, e.g. gears, each of which can be connected to the shaft by a clutching member or members between the shaft and the hub of the transmission member
F16D 21/06	2-Punkt Untergruppe	. . at least two driving shafts or two driven shafts being concentric
F16D 21/08	1-Punkt Untergruppe	. Serially-arranged clutches interconnecting two shafts only when all the clutches are engaged (F16D 13/08, F16D 13/12 take precedence)
F16D 23/00	**Hauptgruppe**	**Details of mechanically-actuated clutches not specific for one distinct type**
F16D 23/02	1-Punkt Untergruppe	. Arrangements for synchronisation, also for power-operated clutches (shape or mounting of interengaging parts of clutch members to facilitate engagement F16D 11/08)

Symbol	Typ	Titel
F16D 23/04	2-Punkt Untergruppe	. . with an additional friction cluch
F16D 23/06	3-Punkt Untergruppe	. . . and a blocking mechanism preventing the engagement of the main clutch prior to synchronisation
F16D 23/08	2-Punkt Untergruppe	. . with a blocking mechanism that only releases the clutching member on synchronisation (in combination with an additional friction clutch F16D 23/06)
F16D 23/10	2-Punkt Untergruppe	. . automatically producing the engagement of the clutch when the clutch members are moving at the same speed; Indicating synchronisation
F16D 23/12	1-Punkt Untergruppe	. Mechanical clutch-actuating mechanisms arranged outside the clutch as such (specific for combined clutches F16D 21/00; mechanisms specific for synchronisation F16D 23/02)
F16D 23/14	2-Punkt Untergruppe	. . Clutch-actuating sleeves; Actuating members directly connected to clutch-actuating sleeves
		Clutches actuated non-mechanically (arrangements for synchronisation F16D 23/02; fluid clutches F16D 31/00-F16D 39/00; automatic clutches F16D 41/00-F16D 45/00; external control F16D 48/00; dynamo-electric clutches H02K 49/00; clutches using electrostatic attraction H02N 13/00) [3]
F16D 25/00	**Hauptgruppe**	**Fluid-actuated clutches**
F16D 25/02	1-Punkt Untergruppe	. with means for actuating or keeping engaged by a force derived at least partially from one of the shafts to be connected
F16D 25/04	1-Punkt Untergruppe	. in which the fluid actuates an elastic clutching member, e.g. a diaphragm or a pneumatic tube (F16D 25/02 takes precedence; coupling using a pneumatic tube F16D 3/82)
F16D 25/06	1-Punkt Untergruppe	. in which the fluid actuates a piston incorporated in the clutch (F16D 25/02 takes precedence)
F16D 25/061	2-Punkt Untergruppe	. . the clutch having interengaging clutch members
F16D 25/062	2-Punkt Untergruppe	. . the clutch having friction surfaces
F16D 25/063	3-Punkt Untergruppe	. . . with clutch members exclusively moving axially
F16D 25/0632	4-Punkt Untergruppe	. . . . with conical friction surfaces, e.g. cone clutches [5]
F16D 25/0635	4-Punkt Untergruppe	. . . . with flat friction surfaces, e.g. discs [5]
F16D 25/0638	5-Punkt Untergruppe	. . . . . with more than two discs, e.g. multiple lamellae [5]
F16D 25/064	4-Punkt Untergruppe	. . . . the friction surface being grooved
F16D 25/065	3-Punkt Untergruppe	. . . with clutching members having a movement which has at least a radial component
F16D 25/08	1-Punkt Untergruppe	. with fluid-actuated member not rotating with a clutching member (F16D 25/02 takes precedence)
F16D 25/10	1-Punkt Untergruppe	. Clutch systems with a plurality of fluid-actuated clutches (arrangements or mounting of clutches in vehicles B60K 17/00)
F16D 25/12	1-Punkt Untergruppe	. Details not specific to one of the before-mentioned types
F16D 27/00	**Hauptgruppe**	**Magnetically-actuated clutches; Control or electric circuits therefor (clutches with magnetisable particles F16D 37/02; circuits for external control F16D 48/00) [2]**
F16D 27/01	1-Punkt Untergruppe	. with permanent magnets
F16D 27/02	1-Punkt Untergruppe	. with electromagnets incorporated in the clutch, i.e. with collecting rings
F16D 27/04	2-Punkt Untergruppe	. . with axially-movable friction surfaces
F16D 27/06	3-Punkt Untergruppe	. . . with friction surfaces arranged within the flux
F16D 27/07	4-Punkt Untergruppe	. . . . Constructional features of clutch-plates or clutch-lamellae
F16D 27/08	3-Punkt Untergruppe	. . . with friction surfaces arranged externally to the flux

Symbol	Typ	Titel
F16D 27/09	2-Punkt Untergruppe	. . and with interengaging jaws or gear-teeth
F16D 27/10	1-Punkt Untergruppe	. with an electromagnet not rotating with a clutching member, i.e. without collecting rings
F16D 27/102	2-Punkt Untergruppe	. . with radially movable clutching members (F16D 27/105 takes precedence) [5]
F16D 27/105	2-Punkt Untergruppe	. . with a helical band or equivalent member co-operating with a cylindrical coupling surface [5]
F16D 27/108	2-Punkt Untergruppe	. . with axially movable clutching members [5]
F16D 27/11	3-Punkt Untergruppe	. . . with conical friction surfaces, e.g. cone clutches [5]
F16D 27/112	3-Punkt Untergruppe	. . . with flat friction surfaces, e.g. discs [5]
F16D 27/115	4-Punkt Untergruppe	. . . . with more than two discs, e.g. multiple lamellae [5]
F16D 27/118	2-Punkt Untergruppe	. . with interengaging jaws or gear teeth [5]
F16D 27/12	1-Punkt Untergruppe	. Clutch systems with a plurality of electromagnetically-actuated clutches
F16D 27/14	1-Punkt Untergruppe	. Details
F16D 28/00	**Hauptgruppe**	**Electrically-actuated clutches (clutches actuated directly by means of an electromagnet F16D 27/00) [6]**
F16D 29/00	**Hauptgruppe**	**Clutches or systems of clutches involving both fluid and magnetic or both fluid and electric actuation [6]**
		Couplings or clutches with a fluid or semifluid as power-transmitting means (fluid gearing F16H 39/00-F16H 49/00)
F16D 31/00	**Hauptgruppe**	**Fluid couplings or clutches with pumping sets of the volumetric type, i.e. in the case of liquid passing a predetermined volume per revolution**
F16D 31/02	1-Punkt Untergruppe	. using pumps with pistons or plungers working in cylinders
F16D 31/04	1-Punkt Untergruppe	. using gear-pumps
F16D 31/06	1-Punkt Untergruppe	. using pumps of types differing from those before-mentioned
F16D 31/08	1-Punkt Untergruppe	. Control of slip
F16D 33/00	**Hauptgruppe**	**Rotary fluid couplings or clutches of the hydrokinetic type**
F16D 33/02	1-Punkt Untergruppe	. controlled by changing the flow of the liquid in the working circuit, while maintaining a completely filled working circuit
F16D 33/04	2-Punkt Untergruppe	. . by altering the position of blades
F16D 33/06	1-Punkt Untergruppe	. controlled by changing the amount of liquid in the working circuit
F16D 33/08	2-Punkt Untergruppe	. . by devices incorporated in the fluid coupling, with or without remote control
F16D 33/10	3-Punkt Untergruppe	. . . consisting of controllable supply and discharge openings
F16D 33/12	4-Punkt Untergruppe	. . . . controlled automatically by self-actuated valves
F16D 33/14	3-Punkt Untergruppe	. . . consisting of shiftable or adjustable scoops
F16D 33/16	2-Punkt Untergruppe	. . by means arranged externally of the coupling or clutch (mounting of such means in vehicles B60K 23/00, e.g. B60K 23/02)
F16D 33/18	1-Punkt Untergruppe	. Details (applicable also to fluid gearing F16H 41/24)
F16D 33/20	2-Punkt Untergruppe	. . Shape of wheels, blades, or channels with respect to function
F16D 35/00	**Hauptgruppe**	**Fluid clutches in which the clutching is predominantly obtained by fluid adhesion (F16D 37/00 takes precedence)**

Symbol	Typ	Titel
F16D 35/02	1-Punkt Untergruppe	. with rotary working chambers and rotary reservoirs, e.g. in one coupling part [5]
F16D 37/00	**Hauptgruppe**	**Clutches in which the drive is transmitted through a medium consisting of small particles, e.g. centrifugally speed-responsive**
F16D 37/02	1-Punkt Untergruppe	. the particles being magnetisable
F16D 39/00	**Hauptgruppe**	**Combinations of couplings according to two or more of the groups F16D 31/00-F16D 37/00**
		Freewheels or freewheel clutches; Automatic clutches (F16D 31/00-F16D 39/00 take precedence)
F16D 41/00	**Hauptgruppe**	**Freewheels or freewheel clutches (cycle brakes controlled by back-pedalling B62L 5/00)**
F16D 41/02	1-Punkt Untergruppe	. disengaged by contact of a part of or on the freewheel or freewheel clutch with a stationarily-mounted member
F16D 41/04	1-Punkt Untergruppe	. combined with a clutch for locking the driving and driven members (F16D 41/02, F16D 41/24 take precedence)
F16D 41/06	1-Punkt Untergruppe	. with intermediate wedging coupling members between an inner and an outer surface (F16D 41/02, F16D 41/24 take precedence)
F16D 41/061	2-Punkt Untergruppe	. . the intermediate members wedging by movement having an axial component [6]
F16D 41/063	2-Punkt Untergruppe	. . the intermediate members wedging by moving along the inner and the outer surface without pivoting or rolling, e.g. sliding wedges (F16D 41/061 takes precedence) [6]
F16D 41/064	2-Punkt Untergruppe	. . the intermediate members wedging by rolling and having a circular cross-section, e.g. balls (F16D 41/061 takes precedence) [6]
F16D 41/066	3-Punkt Untergruppe	. . . all members having the same size and only one of the two surfaces being cylindrical [6]
F16D 41/067	4-Punkt Untergruppe	. . . . and the members being distributed by a separate cage encircling the axis of rotation [6]
F16D 41/069	2-Punkt Untergruppe	. . the intermediate members wedging by pivoting or rocking, e.g. sprags (F16D 41/061 takes precedence) [6]
F16D 41/07	3-Punkt Untergruppe	. . . between two cylindrical surfaces [6]
F16D 41/08	2-Punkt Untergruppe	. . with provision for altering the freewheeling action
F16D 41/10	3-Punkt Untergruppe	. . . with self-actuated reversing
F16D 41/12	1-Punkt Untergruppe	. with hinged pawl co-operating with teeth, cogs, or the like (F16D 41/02, F16D 41/24 take precedence)
F16D 41/14	2-Punkt Untergruppe	. . the effective stroke of the pawl being adjustable
F16D 41/16	2-Punkt Untergruppe	. . the action being reversible
F16D 41/18	1-Punkt Untergruppe	. with non-hinged detent (F16D 41/02, F16D 41/24 take precedence)
F16D 41/20	1-Punkt Untergruppe	. with expandable or contractable clamping ring or band (F16D 41/02, F16D 41/24 take precedence)
F16D 41/22	1-Punkt Untergruppe	. with clutching ring or disc axially shifted as a result of lost motion between actuating members (F16D 41/02, F16D 41/24 take precedence)
F16D 41/24	1-Punkt Untergruppe	. specially adapted for cycles
F16D 41/26	2-Punkt Untergruppe	. . with provision for altering the action
F16D 41/28	2-Punkt Untergruppe	. . with intermediate wedging coupling members
F16D 41/30	2-Punkt Untergruppe	. . with hinged pawl co-operating with teeth, cogs, or the like
F16D 41/32	2-Punkt Untergruppe	. . with non-hinged detent
F16D 41/34	2-Punkt Untergruppe	. . with expandable or contractable clamping ring or band

Symbol	Typ	Titel
F16D 41/36	2-Punkt Untergruppe	. . with clutching ring or disc axially shifted as a result of lost motion between actuating members
F16D 43/00	**Hauptgruppe**	**Internally controlled automatic clutches (varying the relationship between two coaxial shafts F16D 3/10; freewheels, freewheel clutches F16D 41/00; external control of clutches F16D 48/00) [6]**
F16D 43/02	1-Punkt Untergruppe	. actuated entirely mechanically
F16D 43/04	2-Punkt Untergruppe	. . controlled by angular speed (F16D 43/24 takes precedence; clutches in which the drive is transmitted through a medium consisting of small particles F16D 37/00)
F16D 43/06	3-Punkt Untergruppe	. . . with centrifugal masses actuating axially a movable pressure ring or the like
F16D 43/08	4-Punkt Untergruppe	. . . . the pressure ring actuating friction plates, cones, or similar axially-movable friction surfaces
F16D 43/09	5-Punkt Untergruppe	. . . . . in which the carrier of the centrifugal masses can be stopped
F16D 43/10	5-Punkt Untergruppe	. . . . . the centrifugal masses acting directly on the pressure ring, no other actuating mechanism for the pressure ring being provided
F16D 43/12	5-Punkt Untergruppe	. . . . . the centrifugal masses acting on, or forming a part of, an actuating mechanism by which the pressure ring can also be actuated independently of the masses
F16D 43/14	3-Punkt Untergruppe	. . . with centrifugal masses actuating the clutching members directly in a direction which has at least a radial component; with centrifugal masses themselves being the clutching members
F16D 43/16	4-Punkt Untergruppe	. . . . with clutching members having interengaging parts
F16D 43/18	4-Punkt Untergruppe	. . . . with friction clutching members
F16D 43/20	2-Punkt Untergruppe	. . controlled by torque, e.g. overload-release clutches, slip-clutches with means by which torque varies the clutching pressure
F16D 43/202	3-Punkt Untergruppe	. . . of the ratchet type (slip couplings of the ratchet type F16D 7/04) [5]
F16D 43/204	4-Punkt Untergruppe	. . . . with intermediate balls or rollers [5]
F16D 43/206	5-Punkt Untergruppe	. . . . . moving axially between engagement and disengagement [5]
F16D 43/208	5-Punkt Untergruppe	. . . . . moving radially between engagement and disengagement [5]
F16D 43/21	3-Punkt Untergruppe	. . . with friction members
F16D 43/22	2-Punkt Untergruppe	. . controlled by both speed and torque
F16D 43/24	2-Punkt Untergruppe	. . controlled by acceleration or deceleration of angular speed
F16D 43/25	2-Punkt Untergruppe	. . controlled by thermo-responsive elements
F16D 43/26	2-Punkt Untergruppe	. . acting at definite angular position or disengaging after a definite number of rotations (actuating by means of stationary abutment F16D 11/02, F16D 13/02, F16D 15/00; control of change-speed or reversing-gearings conveying rotary motion F16H 59/00-F16H 63/00)
F16D 43/28	1-Punkt Untergruppe	. actuated by fluid pressure
F16D 43/284	2-Punkt Untergruppe	. . controlled by angular speed
F16D 43/286	2-Punkt Untergruppe	. . controlled by torque
F16D 43/30	1-Punkt Untergruppe	. Systems of a plurality of automatic clutches
F16D 45/00	**Hauptgruppe**	**Freewheels or freewheel clutches combined with automatic clutches**
F16D 47/00	**Hauptgruppe**	**Systems of clutches, or clutches and couplings, comprising devices of types grouped under at least two of the following sets of groups: F16D 1/00-F16D 9/00; F16D 11/00-F16D 23/00; F16D**

Symbol	Typ	Titel
		25/00-F16D 29/00; F16D 31/00-F16D 39/00; F16D 41/00-F16D 45/00 (freewheels combined with a clutch to lock the driving and driven members of the freewheel F16D 41/04, F16D 41/26)
F16D 47/02	1-Punkt Untergruppe	. of which at least one is a coupling (elastic attachment of clutch parts, see the relevant groups for clutches)
F16D 47/04	1-Punkt Untergruppe	. of which at least one is a freewheel (F16D 47/02, F16D 47/06 take precedence)
F16D 47/06	1-Punkt Untergruppe	. of which at least one is a clutch with a fluid or a semifluid as power-transmitting means
F16D 48/00	**Hauptgruppe**	**External control of clutches [6]**
F16D 48/02	1-Punkt Untergruppe	. Control by fluid pressure [6]
F16D 48/04	2-Punkt Untergruppe	. . providing power assistance [6]
F16D 48/06	1-Punkt Untergruppe	. Control by electric or electronic means, e.g. of fluid pressure [6]
F16D 48/08	2-Punkt Untergruppe	. . Regulating clutch take-up on starting [6]
F16D 48/10	2-Punkt Untergruppe	. . Preventing unintentional or unsafe engagement [6]
F16D 48/12	2-Punkt Untergruppe	. . Control of torque transfer between driven axles [6]
		Brakes (electrodynamic brake systems for vehicles in general B60L; dynamo-electric brakes H02K)
F16D 49/00	**Hauptgruppe**	**Brakes with a braking member co-operating with the periphery of a drum, wheel-rim, or the like (similar clutches F16D 13/10)**
F16D 49/02	1-Punkt Untergruppe	. shaped as a helical band or coil with more than one turn, with or without intensification of the braking force by the tension of the band or contracting member (similar clutches F16D 13/08)
F16D 49/04	2-Punkt Untergruppe	. . mechanically actuated
F16D 49/06	2-Punkt Untergruppe	. . fluid actuated
F16D 49/08	1-Punkt Untergruppe	. shaped as an encircling band extending over approximately 360°
F16D 49/10	2-Punkt Untergruppe	. . mechanically actuated (self-tightening F16D 49/20)
F16D 49/12	2-Punkt Untergruppe	. . fluid actuated
F16D 49/14	1-Punkt Untergruppe	. shaped as a fluid-filled flexible member actuated by variation of the fluid pressure
F16D 49/16	1-Punkt Untergruppe	. Brakes with two brake-blocks (self-tightening F16D 49/20)
F16D 49/18	1-Punkt Untergruppe	. Brakes with three or more brake-blocks (self-tightening F16D 49/20)
F16D 49/20	1-Punkt Untergruppe	. Self-tightening brakes (with helical band or coil with more than one turn F16D 49/02)
F16D 49/22	2-Punkt Untergruppe	. . with an auxiliary friction member initiating or increasing the action of the brake
F16D 51/00	**Hauptgruppe**	**Brakes with outwardly-movable braking members co-operating with the inner surface of a drum or the like (similar clutches F16D 13/14)**
F16D 51/02	1-Punkt Untergruppe	. shaped as one or more circumferential bands (similar clutches F16D 13/12)
F16D 51/04	2-Punkt Untergruppe	. . mechanically actuated
F16D 51/06	2-Punkt Untergruppe	. . fluid actuated
F16D 51/08	1-Punkt Untergruppe	. shaped as an expansible fluid-filled flexible member
F16D 51/10	1-Punkt Untergruppe	. shaped as exclusively radially-movable brake-shoes
F16D 51/12	2-Punkt Untergruppe	. . mechanically actuated

Symbol	Typ	Titel
F16D 51/14	2-Punkt Untergruppe	. . fluid actuated
F16D 51/16	1-Punkt Untergruppe	. shaped as brake-shoes pivoted on a fixed or nearly-fixed axis (self-tightening F16D 51/46)
F16D 51/18	2-Punkt Untergruppe	. . with two brake-shoes
F16D 51/20	3-Punkt Untergruppe	. . . extending in opposite directions from their pivots
F16D 51/22	4-Punkt Untergruppe	. . . . mechanically actuated
F16D 51/24	4-Punkt Untergruppe	. . . . fluid actuated
F16D 51/26	3-Punkt Untergruppe	. . . both extending in the same direction from their pivots
F16D 51/28	4-Punkt Untergruppe	. . . . mechanically actuated
F16D 51/30	4-Punkt Untergruppe	. . . . fluid actuated
F16D 51/32	2-Punkt Untergruppe	. . with three or more brake-shoes
F16D 51/34	3-Punkt Untergruppe	. . . extending in opposite directions from their pivots
F16D 51/36	4-Punkt Untergruppe	. . . . mechanically actuated
F16D 51/38	4-Punkt Untergruppe	. . . . fluid actuated
F16D 51/40	3-Punkt Untergruppe	. . . all extending in the same direction from their pivots
F16D 51/42	4-Punkt Untergruppe	. . . . mechanically actuated
F16D 51/44	4-Punkt Untergruppe	. . . . fluid actuated
F16D 51/46	1-Punkt Untergruppe	. Self-tightening brakes with pivoted brake-shoes
F16D 51/48	2-Punkt Untergruppe	. . with two linked or directly-interacting brake-shoes
F16D 51/50	3-Punkt Untergruppe	. . . mechanically actuated
F16D 51/52	3-Punkt Untergruppe	. . . fluid actuated
F16D 51/54	2-Punkt Untergruppe	. . with three or more brake-shoes, at least two of them being linked or directly interacting
F16D 51/56	3-Punkt Untergruppe	. . . mechanically actuated
F16D 51/58	3-Punkt Untergruppe	. . . fluid actuated
F16D 51/60	2-Punkt Untergruppe	. . with wedging action of a brake-shoe, e.g. the shoe entering as a wedge between the brake-drum and a stationary part
F16D 51/62	3-Punkt Untergruppe	. . . mechanically actuated
F16D 51/64	3-Punkt Untergruppe	. . . fluid actuated
F16D 51/66	2-Punkt Untergruppe	. . an actuated brake-shoe being carried along and thereby engaging a member for actuating another brake-shoe
F16D 51/68	3-Punkt Untergruppe	. . . mechanically actuated
F16D 51/70	3-Punkt Untergruppe	. . . fluid actuated
F16D 53/00	**Hauptgruppe**	**Brakes with braking members co-operating with both the periphery and the inner surface of a drum, wheel-rim, or the like (similar clutches F16D 13/20)**
F16D 55/00	**Hauptgruppe**	**Brakes with substantially-radial braking surfaces pressed together in axial direction, e.g. disc brakes (similar clutches F16D 13/38)**

Symbol	Typ	Titel
F16D 55/02	1-Punkt Untergruppe	. with axially-movable discs or pads pressed against axially-located rotating members
F16D 55/04	2-Punkt Untergruppe	. . by moving discs or pads away from one another against radial walls of drums or cylinders
F16D 55/06	3-Punkt Untergruppe	. . . without self-tightening action
F16D 55/08	4-Punkt Untergruppe	. . . . Mechanically-actuated brakes
F16D 55/10	4-Punkt Untergruppe	. . . . Brakes actuated by a fluid-pressure device arranged in or on the brake
F16D 55/12	5-Punkt Untergruppe	. . . . . comprising an expansible fluid-filled flexible member coaxial with the brake
F16D 55/14	3-Punkt Untergruppe	. . . with self-tightening action, e.g. by means of coacting helical surfaces or balls and inclined surfaces
F16D 55/15	4-Punkt Untergruppe	. . . . initiated by means of brake-bands or brake-shoes
F16D 55/16	4-Punkt Untergruppe	. . . . Mechanically-actuated brakes
F16D 55/18	4-Punkt Untergruppe	. . . . Brakes actuated by a fluid-pressure device arranged in or on the brake
F16D 55/20	5-Punkt Untergruppe	. . . . . comprising an expansible fluid-filled flexible member coaxial with the brake
F16D 55/22	2-Punkt Untergruppe	. . by clamping an axially-located rotating disc between movable braking members, e.g. movable brake discs or brake pads [5]
F16D 55/224	3-Punkt Untergruppe	. . . with a common actuating member for the braking members [5]
F16D 55/225	4-Punkt Untergruppe	. . . . the braking members being brake pads [5]
F16D 55/2255	5-Punkt Untergruppe	. . . . . in which the common actuating member is pivoted [5]
F16D 55/226	5-Punkt Untergruppe	. . . . . in which the common actuating member is moved axially [5]
F16D 55/2265	6-Punkt Untergruppe	. . . . . the axial movement being guided by one or more pins [5]
F16D 55/227	7-Punkt Untergruppe	. . . . . by two pins [5]
F16D 55/228	3-Punkt Untergruppe	. . . with a separate actuating member for each side
F16D 55/24	1-Punkt Untergruppe	. with a plurality of axially-movable discs, lamellae, or pads, pressed from one side towards an axially-located member
F16D 55/26	2-Punkt Untergruppe	. . without self-tightening action
F16D 55/28	3-Punkt Untergruppe	. . . Brakes with only one rotating disc
F16D 55/30	4-Punkt Untergruppe	. . . . mechanically actuated
F16D 55/31	5-Punkt Untergruppe	. . . . . by means of an intermediate leverage
F16D 55/32	4-Punkt Untergruppe	. . . . actuated by a fluid-pressure device arranged in or on the brake
F16D 55/33	5-Punkt Untergruppe	. . . . . by means of an intermediate leverage
F16D 55/34	5-Punkt Untergruppe	. . . . . comprising an expansible fluid-filled flexible member coaxial with the brake
F16D 55/36	3-Punkt Untergruppe	. . . Brakes with a plurality of rotating discs all lying side by side
F16D 55/38	4-Punkt Untergruppe	. . . . mechanically actuated
F16D 55/39	5-Punkt Untergruppe	. . . . . by means of an intermediate leverage
F16D 55/40	4-Punkt Untergruppe	. . . . actuated by a fluid-pressure device arranged in or on the brake

Symbol	Typ	Titel
F16D 55/41	5-Punkt Untergruppe	. . . . . by means of an intermediate leverage
F16D 55/42	5-Punkt Untergruppe	. . . . . comprising an expansible fluid-filled flexible member coaxial with the brake
F16D 55/44	3-Punkt Untergruppe	. . . with the rotating part consisting of both central plates and ring-shaped plates arranged concentrically around the central plates
F16D 55/46	2-Punkt Untergruppe	. . with self-tightening action
F16D 55/48	3-Punkt Untergruppe	. . . with discs or pads having a small free angular travel relative to their support, which produces the self-tightening action
F16D 55/50	3-Punkt Untergruppe	. . . with auxiliary friction members, which may be of different type, producing the self-tightening action
F16D 57/00	**Hauptgruppe**	**Liquid-resistance brakes; Air-resistance brakes**
F16D 57/02	1-Punkt Untergruppe	. with blades or like members braked by the fluid
F16D 57/04	1-Punkt Untergruppe	. with blades causing a directed flow, e.g. Föttinger type
F16D 57/06	1-Punkt Untergruppe	. comprising a pump circulating fluid, braking being effected by throttling of the circulation
F16D 59/00	**Hauptgruppe**	**Self-acting brakes, e.g. coming into operation at a predetermined speed**
F16D 59/02	1-Punkt Untergruppe	. spring-loaded and adapted to be released by mechanical, fluid, or electromagnetic means
F16D 61/00	**Hauptgruppe**	**Brakes with means for making the energy absorbed available for use (F16D 57/00 takes precedence)**
F16D 63/00	**Hauptgruppe**	**Brakes not otherwise provided for; Brakes combining more than one of the types of groups F16D 49/00-F16D 61/00 (brakes with auxiliary members for self-tightening F16D 49/22, F16D 51/66, F16D 55/50)**
F16D 65/00	**Hauptgruppe**	**Parts or details (similar members for clutches F16D 13/58)**
F16D 65/02	1-Punkt Untergruppe	. Braking members; Mounting thereof (friction linings or attachment thereof F16D 69/00)
F16D 65/04	2-Punkt Untergruppe	. . Bands, shoes or pads; Pivots or supporting members therefor [5]
F16D 65/06	3-Punkt Untergruppe	. . . for externally-engaging brakes
F16D 65/08	3-Punkt Untergruppe	. . . for internally-engaging brakes
F16D 65/09	4-Punkt Untergruppe	. . . . Pivots or supporting members therefor [2]
F16D 65/092	3-Punkt Untergruppe	. . . for axially-engaging brakes, e.g. disc brakes [5]
F16D 65/095	4-Punkt Untergruppe	. . . . Pivots or supporting members therefor [5]
F16D 65/097	5-Punkt Untergruppe	. . . . . Resilient means interposed between pads and supporting members [5]
F16D 65/10	2-Punkt Untergruppe	. . Drums for externally- or internally-engaging brakes
F16D 65/12	2-Punkt Untergruppe	. . Discs; Drums for disc brakes
F16D 65/14	1-Punkt Untergruppe	. Actuating mechanisms for brakes; Means for initiating operation at a predetermined position (brake control systems, parts thereof B60T)
F16D 65/16	2-Punkt Untergruppe	. . arranged in or on the brake
F16D 65/18	3-Punkt Untergruppe	. . . adapted for drawing members together
F16D 65/20	4-Punkt Untergruppe	. . . . comprising a fluid-pressure device
F16D 65/21	4-Punkt Untergruppe	. . . . acting by electric or magnetic means [2]
F16D 65/22	3-Punkt Untergruppe	. . . adapted for pressing members apart

Symbol	Typ	Titel
F16D 65/24	4-Punkt Untergruppe	. . . . comprising a fluid-pressure device
F16D 65/26	5-Punkt Untergruppe	. . . . . in the form of a fluid-filled flexible member
F16D 65/27	4-Punkt Untergruppe	. . . . acting by electric or magnetic means [2]
F16D 65/28	2-Punkt Untergruppe	. . arranged apart from the brake
F16D 65/30	3-Punkt Untergruppe	. . . acting mechanically
F16D 65/32	3-Punkt Untergruppe	. . . acting by fluid means
F16D 65/34	3-Punkt Untergruppe	. . . acting by electric or magnetic means (holding devices using electrostatic attraction H02N 13/00) [2]
F16D 65/35	4-Punkt Untergruppe	. . . . including a permanent magnet [3]
F16D 65/36	3-Punkt Untergruppe	. . . acting by both fluid and electric means
F16D 65/38	1-Punkt Untergruppe	. Slack adjusters
F16D 65/40	2-Punkt Untergruppe	. . mechanical
F16D 65/42	3-Punkt Untergruppe	. . . non-automatic
F16D 65/44	4-Punkt Untergruppe	. . . . by means of direct linear adjustment (F16D 65/46, F16D 65/48 take precedence)
F16D 65/46	4-Punkt Untergruppe	. . . . with screw-thread and nut
F16D 65/48	4-Punkt Untergruppe	. . . . with eccentric or helical body
F16D 65/50	4-Punkt Untergruppe	. . . . for angular adjustment of two concentric parts of the brake control system
F16D 65/52	3-Punkt Untergruppe	. . . self-acting in one direction for adjusting excessive play
F16D 65/54	4-Punkt Untergruppe	. . . . by means of direct linear adjustment (F16D 65/56, F16D 65/58 take precedence)
F16D 65/56	4-Punkt Untergruppe	. . . . with screw-thread and nut
F16D 65/58	4-Punkt Untergruppe	. . . . with eccentric or helical body
F16D 65/60	4-Punkt Untergruppe	. . . . for angular adjustment of two concentric parts of the brake control system
F16D 65/62	3-Punkt Untergruppe	. . . self-acting in both directions for adjusting excessive and insufficient play
F16D 65/64	4-Punkt Untergruppe	. . . . by means of direct linear adjustment (F16D 65/66, F16D 65/68 take precedence)
F16D 65/66	4-Punkt Untergruppe	. . . . with screw-thread and nut
F16D 65/68	4-Punkt Untergruppe	. . . . with eccentric or helical body
F16D 65/70	4-Punkt Untergruppe	. . . . for angular adjustment of two concentric parts of the brake control system
F16D 65/72	2-Punkt Untergruppe	. . hydraulic
F16D 65/74	3-Punkt Untergruppe	. . . self-acting in one direction
F16D 65/76	3-Punkt Untergruppe	. . . self-acting in both directions
F16D 65/78	1-Punkt Untergruppe	. Features relating to cooling
F16D 65/80	2-Punkt Untergruppe	. . for externally-engaging brakes
F16D 65/807	3-Punkt Untergruppe	. . . with open cooling system, e.g. cooled by air [2]

Symbol	Typ	Titel
F16D 65/813	3-Punkt Untergruppe	. . . with closed cooling system [2]
F16D 65/82	2-Punkt Untergruppe	. . for internally-engaging brakes
F16D 65/827	3-Punkt Untergruppe	. . . with open cooling system, e.g. cooled by air [2]
F16D 65/833	3-Punkt Untergruppe	. . . with closed cooling system [2]
F16D 65/84	2-Punkt Untergruppe	. . for disc brakes
F16D 65/847	3-Punkt Untergruppe	. . . with open cooling system, e.g. cooled by air [2]
F16D 65/853	3-Punkt Untergruppe	. . . with closed cooling system [2]
F16D 66/00	**Hauptgruppe**	**Arrangements for monitoring working conditions, e.g. wear, temperature**
F16D 66/02	1-Punkt Untergruppe	. Apparatus for indicating wear
F16D 67/00	**Hauptgruppe**	**Combinations of couplings and brakes; Combinations of clutches and brakes (F16D 71/00 takes precedence; combinations of couplings and clutches F16D 47/02; conjoint control of brake systems and driveline clutches in vehicles B60W 10/02, B60W 10/18) [2]**
F16D 67/02	1-Punkt Untergruppe	. Clutch-brake combinations
F16D 67/04	2-Punkt Untergruppe	. . fluid actuated
F16D 67/06	2-Punkt Untergruppe	. . electromagnetically actuated
F16D 69/00	**Hauptgruppe**	**Friction linings; Attachment thereof; Selection of coacting friction substances or surfaces (clutching elements F16D 13/60; braking members F16D 65/02)**
F16D 69/02	1-Punkt Untergruppe	. Composition of linings (chemical aspects, see the relevant classes)
F16D 69/04	1-Punkt Untergruppe	. Attachment of linings
F16D 71/00	**Hauptgruppe**	**Mechanisms for bringing members to rest in a predetermined position (combined with, or controlling, clutches F16D 43/26; means for initiating operation of brakes at a predetermined position F16D 65/14; means for securing members after operation F16B 1/02)**
F16D 71/02	1-Punkt Untergruppe	. comprising auxiliary means for producing the final movement
F16D 71/04	1-Punkt Untergruppe	. providing for selection between a plurality of positions (F16D 71/02 takes precedence)