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]

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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, <u>see</u> 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	Тур	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	Тур	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]
F16D 11/00	Hauptgruppe	Clutches with mechanically-actuated clutching members (automatic clutches F16D 41/00-F16D 45/00; external control F16D 48/00) 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

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Symbol	Тур	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

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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	Тур	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	Тур	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	Тур	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
F16D 41/00	Hauntarunne	Freewheels or freewheel clutches; Automatic clutches (F16D 31/00-F16D 39/00 take precedence) Freewheels or freewheel clutches (cycle brakes controlled by back-pedalling B62L 5/00)
	1 Dunkt Untergruppe	
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) $\frac{1}{2}$
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	Тур	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	Тур	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, <u>see</u> 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	Тур	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	Тур	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	Тур	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

		F10D 37/00
Symbol	Тур	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	Тур	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, <u>see</u> 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)