1	SPEED RESPONSIVE DEVICE FOR ADJUSTING RELATIVE ROTATIONAL POSITION OF COUPLED MEMBERS	26	.Including piston axially movable in cylinder having axis coextensive with axis of
2	.Actuated by fluid or electricity		rotation of coupled members
3	.Pivoted weight	27	.Including multiple piston-
4	Gear segment on pivoted weight		cylinder devices radially
5	Pivotal movement opposed by		spaced from axis of rotation
3	compression of coil spring	28	.Fluid confined in enclosure
	along its axis		having flexible walls
6	Pivotal movement opposed by	29	ELECTRICAL OR MAGNETIC COUPLING
O	expansion of coil spring along	30	OVERLOAD RELEASE COUPLING
	its axis	31	.Including thermally responsive
7	HAVING LUBRICATING MEANS		element
8		32	.Torque transmitted via frangible
0	.Lubricant impregnated into		element
0	material	33	Axially extending pin
9	Metallic material	34	.Torque transmitted via radially
10	.For overload release coupling	J 1	spaced deformable roller
11	.For coupling having torque	35	.Torque transmitted via a ball
	transmitted via radially	36	Axially biased
	directed pin received in	37	.Torque transmitted via
	conforming aperture	3 /	resiliently biased positive
12	Lubricant supplied to plural		
	pins via common ring which		<pre>drive connection (e.g., cam and follower)</pre>
	encapsulates pins	38	Axially biased
13	Pin includes longitudinally	30 39	-
	extending internal passage	39	By spring coiled about axis of
14	Pin includes longitudinally	4.0	rotation
	extending internal passage	40	.Torque transmitted via
15	.For coupling having torque		frictional engagement of coil
	transmitted via a ball	4.1	spring
16	.For coupling having torque	41	.Torque transmitted via plural
	transmitted via intermeshing		circumferentially spaced
	teeth	4.0	friction elements
17	HAVING HEATING OR COOLING MEANS	42	.Torque transmitted via
18	FLEXIBLE COUPLING BETWEEN FLUID-		frictional engagement of
	CONDUCTING ROTARY SHAFTS		conical or frustoconical
	(E.G., COUPLING BETWEEN	4.2	surfaces
	SECTIONS OF DRILL STRING,	43	With separate resilient member
	ETC.)		for biasing surfaces into
19	.Relative angular displacement of	4.4	engagement
	axes of shafts	44	Coil spring
20	.Including member deformable by	45	.Torque transmitted via
	relative movement between		frictional engagement of
	shafts		planar radially extending
21	Member is coiled spring		surfaces
22	HAVING CLEANING MEANS	46	With separate resilient member
23	WITH AUXILLIARY INDICATOR OR		for biasing surfaces into
	ALARM	4.5	engagement
24	FLUID COUPLING	47	Coil spring
25	.For transmitting limited	48	Plural, circumferentially
	pulsating torque (e.g., fluid drive coupling for impulse		spaced coil springs
	tool)		

464 - 2 CLASS 464 ROTARY SHAFTS, GUDGEONS, HOUSINGS, AND FLEXIBLE COUPLINGS FOR ROTARY SHAFTS

49	COUPLING DEVICE INCLUDES ENDLESS	65.1	Parallel to shaft
49	CHAIN ENGAGED WITH	69	Pararrer to shart .Plural flexible links connected
	CIRCUMFERENTIAL TEETH ON	0,5	to circumferentially spaced
	COUPLED MEMBERS		axially directed pins on drive
50	COUPLING DEVICE INCLUDES ANGLED		and driven members
30	OR HINGED ROD HAVING OPPOSITE	70	Element is annular liner within
	ENDS RELATIVELY RECIPROCABLE	7 0	radially spaced pin-receiving
	AXIALLY IN BORES IN SPACED		opening
	COUPLED MEMBERS	71	Axially directed pin
51	TORQUE TRANSMITTED VIA FLEXIBLE	72	Plural axially spaced liners
	ELEMENT	73	.Element positioned between
52	.With stationary housing	. 5	intermeshing teeth on driving
53	And threaded annulus		and driven members
	surrounding terminal end of	74	Teeth on radially overlapping
	housing for attachment to		surfaces
	auxiliary housing	75	Element is a continuous
54	.Element coiled sinusoidally		annulus extending around
	about axially spaced driving		rotational axis
	and driven members	76	Plurality of disparate elements
55	.Element is flaccid and operates	77	.Element is an open loop spring
	in tension during torque		curved about rotational axis
	transmission (e.g., belt,	78	.Element is tube with slot
	cable, etc.)		through wall to provide
56	Element has circular cross		flexibility
	section	79	.Element includes diverging wall
57	.Element has plural convolutions		portions defining annular
ГО	wound about rotational axis		groove completely surrounding
58	Plural radially overlapping convoluted elements		rotational axis (e.g.,
59	Single element has plural	0.0	bellows)
39	radially overlapping	80 81	Nonmetallic
	convolutions	81	.Plural circumferentially spaced elements
60	Convoluted element has	82	Extending between radially
	noncircular cross section	02	overlapping surfaces on
61.1	.Coil spring		driving and driven members
62.1	Plural	83	Nonmetallic
64.1	Concentric	84	Elements are bowed leaf springs
66.1	Perpendicular to shaft	85	Nonmetallic
68.1	Between axially spaced plates	86	Axially extending torsion bars
68.2	Speed responsive	87	.Nonmetallic element
68.3	With fluid damping	88	Element is hollow sleeve
68.4	Interposed friction or		surrounding rotational axis
	braking element		and connected at opposite ends
68.41	With biasing means		to axially spaced torque
68.5	Including bearing detail		transmitting surfaces on
68.6	Specified bushing		driving and driven members
68.7	Axially spaced springs	89	Extending between radially
68.8	Radially spaced springs		overlapping surfaces on
68.9	Spring detail	0.0	driving and driven members
68.91	Non-coiled or non-metallic	90	Plural elements radially
68.92	With particular seat	0.1	overlapping
63.1	And springs' centerlines	91	Plural elements axially spaced
	spaced along shaft axis		along rotational axis
67.1	Along curved centerline		

92	Annular element between and coincident with drive and	112	.Coupling transmits torque via radially directed pin
93	<pre>driven membersIncluding means to receive radially spaced axially extending projection on drive</pre>	113	With additional axially spaced torque-transmitting coupling which facilitates relative movement between members
94	and driven membersLaminated element or plural	114	Radially directed pin in each coupling
<i>J</i> 1	elements abutting or spaced	115	Pin slidable axially in slot
	along rotational axis	116	Axially spaced pin-carrying
95	With disparate spacer between plural separable elements	110	parts interconnected by pivotal head and socket centering joint
96	Laminated element or plural elements abutting or spaced along axis of rotation	117	Plural pins in each coupling with pin ends spaced 90 degrees apart
97	.Element is a torsion bar having a longitudinal axis coincident with the rotational axis .Element is plate with external	118	Axially spaced pin-carrying parts interconnected by pivotal head and socket centering joint
70	edge completely surrounding rotational axis (e.g., disc)	119	Pins in sequential couplings oriented at right angles to
99	Plural axially spaced plates		each other
100	.Element is leaf spring	120	Pin slidable axially in slot
101	Bowed	121	Pin carried by intermediate
102	SEPARATE COUPLING DEVICE MOVABLE RADIALLY OF AXES OF TORQUE TRANSMITTING MEMBERS TO		element and slidable axially in slots in both coupled members
	ACCOMMODATE PARALLEL,	122	Pin carries disparate sleeve
	MISALIGNED AXES (E.G., OLDHAM		
	MISALIGNED AXES (E.G., OLDHAM COUPLING)	123	engaged with slot wallsSleeve rotatable about pin
103			engaged with slot walls
103	COUPLING)		engaged with slot wallsSleeve rotatable about pin
103 104	COUPLING) .Coupling device includes rolling	123	<pre>engaged with slot wallsSleeve rotatable about pin axis</pre>
	COUPLING) Coupling device includes rolling body for transmitting torque	123	<pre>engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or</pre>
	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving	123 124	<pre>engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in</pre>
	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving complemenatry driving	123 124 125	<pre>engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ring</pre>
	COUPLING) Coupling device includes rolling body for transmitting torque. Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting members. Projection-receiving slot	123 124 125 126	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ring
104	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting members Projection-receiving slot extends completely through	123 124 125 126 127	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ringWith particular balancing means
104	COUPLING) Coupling device includes rolling body for transmitting torque. Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting members. Projection-receiving slot	123 124 125 126 127	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ringWith particular balancing meansWith particular bearing cup surrounding pin endSpherical or semi-spherical
104	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting members Projection-receiving slot extends completely through thickness dimension of coupler	123 124 125 126 127 128	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ringWith particular balancing meansWith particular bearing cup surrounding pin endSpherical or semi-spherical cupAnd disparate device for securing cup to pin or
104	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting members Projection-receiving slot extends completely through thickness dimension of coupler COUPLING ACCOMMODATES DRIVE BETWEEN MEMBERS HAVING MISALIGNED OR ANGULARLY RELATED AXES	123 124 125 126 127 128 129	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ringWith particular balancing meansWith particular bearing cup surrounding pin endSpherical or semi-spherical cupAnd disparate device for securing cup to pin or receiver
104 105 106	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting members Projection-receiving slot extends completely through thickness dimension of coupler COUPLING ACCOMMODATES DRIVE BETWEEN MEMBERS HAVING MISALIGNED OR ANGULARLY RELATED AXES .Coupling between wheel and	123 124 125 126 127 128 129 130	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ringWith particular balancing meansWith particular bearing cup surrounding pin endSpherical or semi-spherical cupAnd disparate device for securing cup to pin or receiverAnd flexible seal
104 105 106	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting members Projection-receiving slot extends completely through thickness dimension of coupler COUPLING ACCOMMODATES DRIVE BETWEEN MEMBERS HAVING MISALIGNED OR ANGULARLY RELATED AXES	123 124 125 126 127 128 129	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ringWith particular balancing meansWith particular bearing cup surrounding pin endSpherical or semi-spherical cupAnd disparate device for securing cup to pin or receiverAnd flexible sealWith particular bearing or
104 105 106	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting members Projection-receiving slot extends completely through thickness dimension of coupler COUPLING ACCOMMODATES DRIVE BETWEEN MEMBERS HAVING MISALIGNED OR ANGULARLY RELATED AXES .Coupling between wheel and vertically oriented shaft (e.g., millstone)	123 124 125 126 127 128 129 130	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ringWith particular balancing meansWith particular bearing cup surrounding pin endSpherical or semi-spherical cupAnd disparate device for securing cup to pin or receiverAnd flexible sealWith particular bearing or bushing mounted on pin
104 105 106	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting membersProjection-receiving slot extends completely through thickness dimension of coupler COUPLING ACCOMMODATES DRIVE BETWEEN MEMBERS HAVING MISALIGNED OR ANGULARLY RELATED AXES .Coupling between wheel and vertically oriented shaft (e.g., millstone)Wheel mounted on rolling body	123 124 125 126 127 128 129 130 131 132 133	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ringWith particular balancing meansWith particular bearing cup surrounding pin endSpherical or semi-spherical cupAnd disparate device for securing cup to pin or receiverAnd flexible sealWith particular bearing or bushing mounted on pinWith particular flexible seal
104 105 106 107 108 109	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting membersProjection-receiving slot extends completely through thickness dimension of coupler COUPLING ACCOMMODATES DRIVE BETWEEN MEMBERS HAVING MISALIGNED OR ANGULARLY RELATED AXES .Coupling between wheel and vertically oriented shaft (e.g., millstone)Wheel mounted on rolling body .Coupling includes relatively movable gear segments	123 124 125 126 127 128 129 130 131 132 133 134	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ringWith particular balancing meansWith particular bearing cup surrounding pin endSpherical or semi-spherical cupAnd disparate device for securing cup to pin or receiverAnd flexible sealWith particular bearing or bushing mounted on pinWith particular flexible sealWith particular yoke providing pin-receiving aperture
104 105 106 107	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting members .Projection-receiving slot extends completely through thickness dimension of coupler COUPLING ACCOMMODATES DRIVE BETWEEN MEMBERS HAVING MISALIGNED OR ANGULARLY RELATED AXES .Coupling between wheel and vertically oriented shaft (e.g., millstone) .Wheel mounted on rolling body .Coupling includes relatively movable gear segments .Coupling transmits torque via	123 124 125 126 127 128 129 130 131 132 133 134 135	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ringWith particular balancing meansWith particular bearing cup surrounding pin endSpherical or semi-spherical cupAnd disparate device for securing cup to pin or receiverAnd flexible sealWith particular bearing or bushing mounted on pinWith particular yoke providing pin-receiving apertureSplit yoke
104 105 106 107 108 109	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting members .Projection-receiving slot extends completely through thickness dimension of coupler COUPLING ACCOMMODATES DRIVE BETWEEN MEMBERS HAVING MISALIGNED OR ANGULARLY RELATED AXES .Coupling between wheel and vertically oriented shaft (e.g., millstone) .Wheel mounted on rolling body .Coupling includes relatively movable gear segments .Coupling transmits torque via semicylindrical segments separated by pivot pin (e.g.,	123 124 125 126 127 128 129 130 131 132 133 134	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ringWith particular balancing meansWith particular bearing cup surrounding pin endSpherical or semi-spherical cupAnd disparate device for securing cup to pin or receiverAnd flexible sealWith particular bearing or bushing mounted on pinWith particular flexible sealWith particular yoke providing pin-receiving aperture
104 105 106 107 108 109	COUPLING) .Coupling device includes rolling body for transmitting torque .Coupling device has aperture or groove for receiving complemenatry driving projection on torque transmitting members .Projection-receiving slot extends completely through thickness dimension of coupler COUPLING ACCOMMODATES DRIVE BETWEEN MEMBERS HAVING MISALIGNED OR ANGULARLY RELATED AXES .Coupling between wheel and vertically oriented shaft (e.g., millstone) .Wheel mounted on rolling body .Coupling includes relatively movable gear segments .Coupling transmits torque via semicylindrical segments	123 124 125 126 127 128 129 130 131 132 133 134 135	engaged with slot wallsSleeve rotatable about pin axisSleeve has spherical or semi-spherical bearing surfacePlural pins received in conforming apertures in ringSplit ringWith particular balancing meansWith particular bearing cup surrounding pin endSpherical or semi-spherical cupAnd disparate device for securing cup to pin or receiverAnd flexible sealWith particular bearing or bushing mounted on pinWith particular flexible sealWith particular yoke providing pin-receiving apertureSplit yokePlural pins carried by

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137	.Coupling transmits torque via	156	Intermeshing teeth on element
	axially directed pin radially		and members
	spaced from rotational axis	157	.Torque transmitted via
138	Particular pivotal mounting for		intermeshing teeth on drive
	pin		and driven members
139	.Coupling transmits torque via	158	Teeth on radially overlapping
	radially spaced ball		surfaces
140	With additional axially spaced	159	Spherical or semispherical
	torque-transmitting coupling		surfaces
	which facilitates relative	160	COUPLING FACILITATES RELATIVE
7.47	movement between members		ROTARY DISPLACEMENT BETWEEN
141	Ball mounted in groove for		COUPLED MEMBERS
	relative axial movement with	161	.Members coupled via axially
1.40	respect to coupled member		movable, resiliently biased
142	Mounted for relative axial		intermediate element
	movement with respect to both	162	COUPLING FACILITATES RELATIVE
140	coupled members		AXIAL MOTION BETWEEN COUPLED
143	Grooves formed in radially	1.60	MEMBERS
1 4 4	overlapping elements	163	.Coupling between rotary drive
144	Intersecting grooves		table and axially movable
145	With intermediate	1.64	drill string
146	positioning cage for ball	164	Coupler includes endless belt
146	Bottom wall of groove in		or chain run engageable with
	outer member is parallel to		drill string and moveable in direction of axial advance
	axial centerline of outer	165	
	member (e.g., internally	100	Coupler includes antifriction
147	grooved cylinder) .Torque transmitted via		rolling body engageable with drill string
147	intermediate element	166	With screw device for
148	Element carries or receives	100	adjusting radial position of
140	hook on opposite ends for		rolling body
	connection to drive and driven	167	.Coupler includes antifriction
	members (e.g., link chain)	107	rolling body engageable with
149	Axially intermeshing teeth		axially moveable member
150	Intermediate element located	168	Recirculating rolling bodies
130	between overlapping surfaces	169	.Including spring to bias member
	on drive and driven members	100	in axial direction
151	Intermediate element is	170	HOUSING
±3±	externally grooved or ribbed	171	Rigid semispherical surface on
	sphere	- , -	one housing part slidably
152	Plural circumferentially		engaged with surface on mating
101	spaced intermediate elements		housing part
153	Intermediate element includes	172	.Telescoping cylindrical housing
	internal openings at opposite		members
	ends for receiving axially	173	.Flexible housing
	spaced ends on drive and	174	Helically coiled member
	driven members	175	Corrugated structure
154	Intermeshing teeth on element	176	.Pivotally mounted housing
	and members	_, _	supported for movement between
155	Intermediate element includes		open and closed positions
	external surface at opposite	177	Separably connected housings for
	ends received in complementary	•	separably connected shafts
	openings in axially spaced	178	.With rolling body supporting
	ends of driving and driven	-	shaft in housing
	members driven members	179	SHAFTING

180	.Particular vibration dampening
	or balancing structure
181	.Nonmetalic shaft or component
182	.With disparate device for
	coupling shaft to additional
	shaft or rotary body
183	.Hollow or layered shaft
184	GUDGEONS
185	MISCELLANEOUS

CROSS-REFERENCE ART COLLECTIONS

900	ELECTRICALLY INSULATIVE MEMBER
901	RAPID ATTACHMENT OR RELEASE
902	PARTICULAR MATERIAL
903	.Nonmetal
904	HOMOKINETIC COUPLING
905	.Torque transmitted via radially
	extending pin
906	.Torque transmitted via radially
	spaced balls

FOREIGN ART COLLECTIONS

FOR 000 CLASS-RELATED FOREIGN DOCUMENTS

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