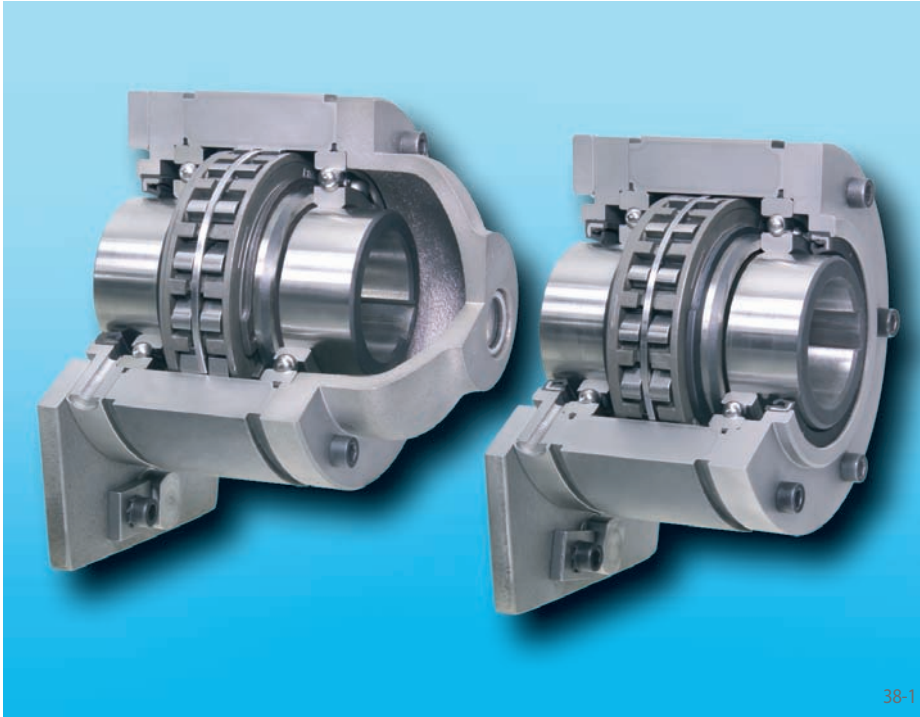
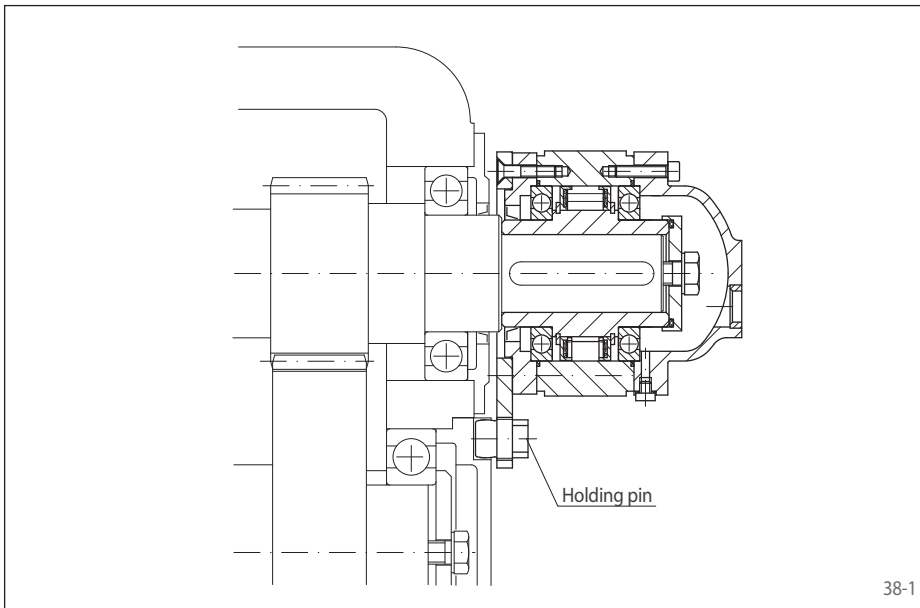


Complete Freewheels BA ... X and BC ... X

with lever arm
with sprag lift-off X



38-1



38-1

Features

Complete Freewheels BA ... X and BC ... X with lever arm are sealed sprag freewheels with ball bearings and with sprag lift-off X. The sprag lift-off X ensures wear-free freewheeling operation when the inner ring rotates at high speed.

The freewheels BA ... X have an end cover and are fitted to shaft ends. The oil filling is carried out after the freewheel has been fitted to the end of the shaft.

The freewheels BC ... X are supplied oil-filled and are arranged on through shafts or shaft ends.

The freewheels BA ... X and BC ... X are used as:

► Backstops

for applications with high speed freewheeling operation.

Nominal torques up to 42 500 Nm.

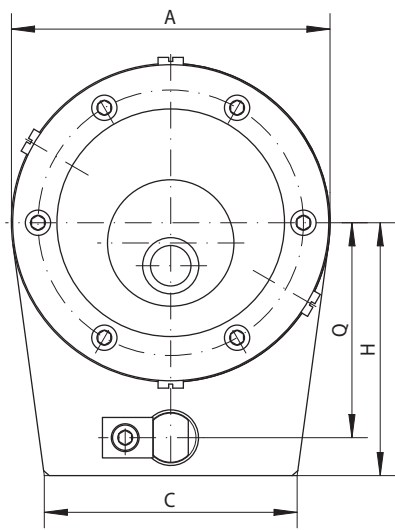
Bores up to 150 mm.

Application example

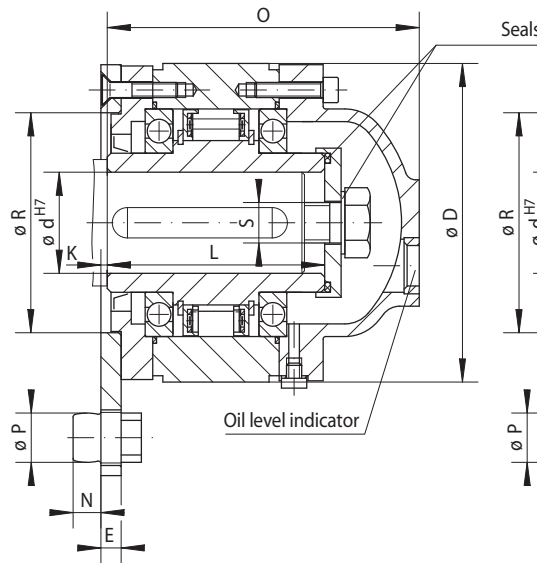
Complete Freewheel BA 45 SX as a backstop, arranged at the end of the intermediate shaft of a spur gearbox. The backdriving torque is supported by the lever arm with holding pin on the gearbox housing. If the holding pin is removed, the shaft can be turned in both directions. With the high shaft speed in normal operation (freewheeling operation), the type with sprag lift-off X is used; the sprags work in freewheeling operation without contact and hence are wear-free.

Complete Freewheels BA ... X and BC ... X

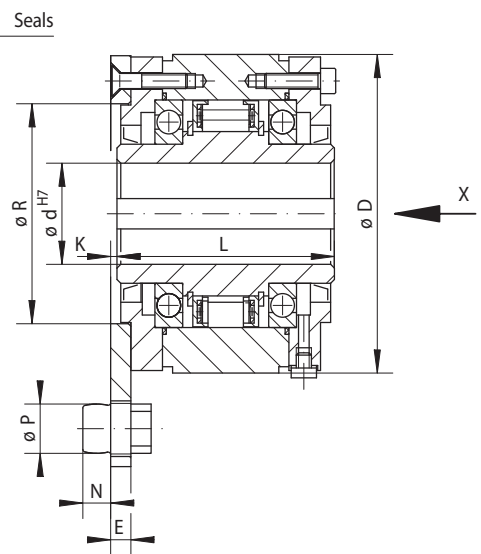
with lever arm
with sprag lift-off X



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Series BA ... X



39-2

Series BC ... X

39-3

Backstop	Type with sprag lift-off X		Dimensions																
	For extended service life using sprag lift-off at high speed rotating inner ring																		

Freewheel Size	Type	Nominal Torque Nm	Sprag lift-off at inner ring speed min ⁻¹	Max. speed Inner ring freewheels min ⁻¹	Bore d			A	C	D	E	H	K	L	N	O	P	Q	R	S for Screw	Weight kg
					Standard mm	max. mm															
BA 20 BC 20	DX	400	750	1 700	30		30	110	90	106	8	80	2,5	77	11	104	19,5	65	70	M10	5
BA 25 BC 25	DX	650	700	1 600	35	40	40	126	100	126	8	90	2,5	93	11	125	19,5	75	80	M12	8
BA 30 BC 30	DX	1 100	630	1 600	45	50	50	155	120	151	10	120	3,5	102	16	140	27,5	95	100	M16	12
BA 40 BC 40	SX	1 400	430	1 500	45	55	60	190	150	181	12	160	5,5	116	22	160	37,5	130	120	M16	20
BA 45 BC 45	SX	2 300	400	1 500	55	65	70	210	160	196	14	175	7,5	130	26	176	41,5	140	130	M16	25
BA 52 BC 52	SX	4 900	320	1 500	65	75	80	230	190	216	14	200	4,5	150	26	208	41,5	160	150	M20	35
BA 55 BC 55	SX	6 500	320	1 250	75	85	90	255	200	246	15	210	3,5	170	29	228	49,5	170	160	M20	50
BA 60 BC 60	SX	14 500	250	1 100	85	95	100	305	220	291	20	250	8,5	206	35	273	60,5	200	190	M24	91
BA 70 BC 70	SX	21 000	240	1 000	120		120	335	260	321	25	280	14,5	215	39	291	65,5	225	210	M24	115
BA 100 BC 100	UX	42 500	210	750	150		150	420	380	411	45	345	31,5	276	60	372	80,5	280	270	M30	260

The maximum transmissible torque is 2 times the specified nominal torque. See page 14 for determination of selection torque. Keyway according to DIN 6885, page 1 • Tolerance of keyway width JS10.

Mounting

The backdriving torque is supported by the lever arm with holding pin. The holding pin engages in a slot or bore in the frame of the machine. It must have 0,5 to 2 mm play in the axial and radial directions.

If the holding pin is removed, the shaft can be turned in both directions.

The tolerance of the shaft must be ISO h6 or j6.

The freewheels BC ... X are supplied oil-filled and ready for installation.

In the case of freewheels BA ... X, the inner ring must be secured axially with a retainer plate. Retainer plate with fastening screw and two seals can be supplied upon request. Prior to commissioning, the freewheel must be filled with oil of the specified quality.

Example for ordering

Freewheel size BA 30, type with sprag lift-off X and 50 mm bore:

- BA 30 DX, d = 50 mm

When ordering, please also specify the freewheeling direction of the inner ring when viewed in direction X:

- anticlockwise free or
- clockwise free