LONG-LIFE SEALED SPHERICAL ROLLER BEARINGS FOR CONVEYOR PULLEY IN THE MINING INDUSTRY



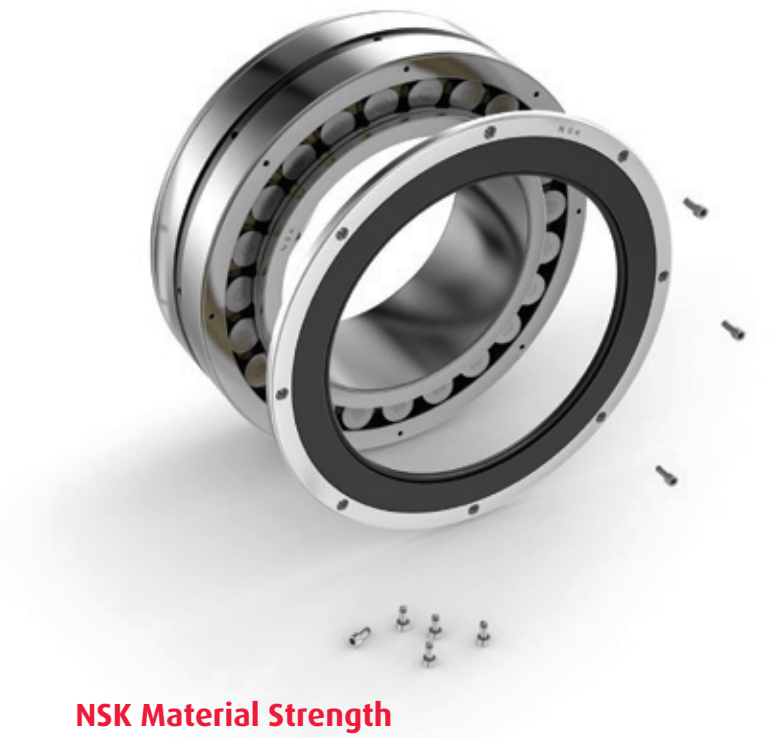
BRANDS OF NSK EUROPE

NSK RHP bearings PPL

Bearing series designed for Mining Machinery

Spherical Roller Bearings with Detachable Seal (SSRB)

Durability and reliability are of paramount importance to bearings used in mining and quarrying conveyor applications, where failure can impact productivity of the entire operation. For the arduous and highly contaminated operating conditions that typically prevail, NSK has developed a spherical roller bearing with a detachable seal. These long-life bearings provide operators of conveyor systems the benefits of increased uptime and a higher degree of reliable performance.



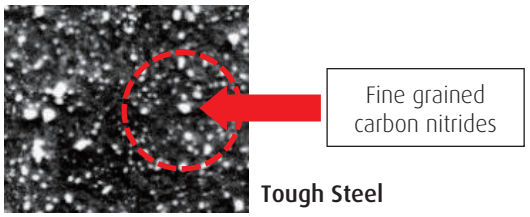
Proven Benefits

- NSK's Tough Steel has longer service life in contaminated operating environments
- High performance seal design, including characteristics to compensate for bearing misalignment
- Removable seal permits measurement of internal clearance during installation
- Easy, bolt-fastened installation of seal
- Dimensionally interchangeable with conventional spherical roller bearings

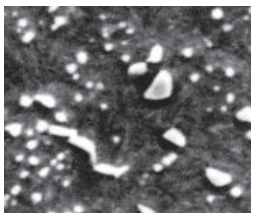
Combining the Tough Steel material technology with an advanced and easy-to-install seal, NSK delivered a high capacity and high performing solution to contaminant-related bearing failures in conveyor applications.

NSK Material Strength

Microstructure (Hard and fine-grained carbon nitrides by Tough technology)

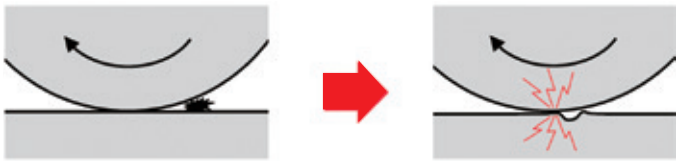


Tough Steel



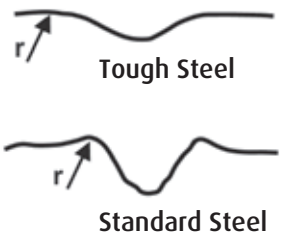
Carburized Steel

High Hardness (Tough Steel > Carburized Steel)



Hard contaminant particle gets pressed between rolling element and raceway.

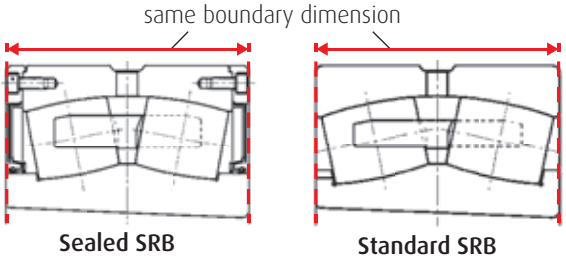
Dent left in raceway surface has raised edges that multiply stress levels and decrease fatigue life.



Design Features

1. Bearing Boundary Dimension

SSRB features the same boundary dimensions with - in most cases - a higher Cr when compared to the standard unsealed bearing. It is not necessary to change the structure around the bearing.



2. Special Bearing Material & Heat Treatment

› NSK adopts tougher steel for the inner & outer ring in order to extend bearing life and to prevent wear on the raceway under poor and severe lubrication conditions.

› High Cr value can be obtained featuring the life extending attribute of Tough Steel bearing material.

3. Seal Design

› Integral garter spring ensures high sealing performance with ability to compensate for bearing misalignment.

› Hydrogenated nitrile butadiene rubber is used for seal material tolerating up to operating temperature of 100ºC.

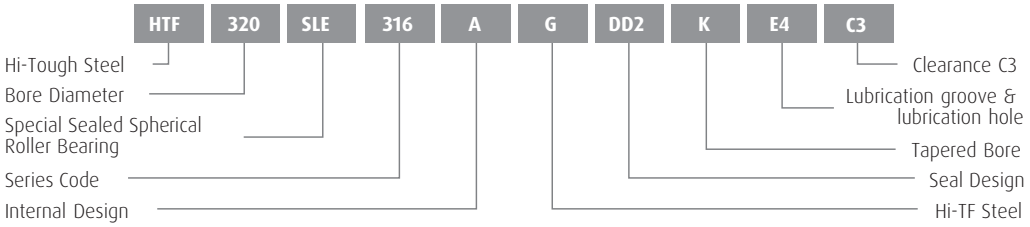
› Seal lip contacts on the bearing inner ring with easy, bolt-fastened installation of the removable seal holder to the bearing outer ring.

› NSK supplies the SSRB without packed grease featuring the ability for the end user to select and pack their own grease.



Garter Seal





NSK SSRB Reference Number	Cr (kN)	Cor (kN)	d (mm)	D (mm)	B (mm)	Speed Limit (rpm)	NSK (Standard Reference Number)
HTF120SLE226AGDD2KE4C3	480	525	120	215	58	1050	(22224EAKE4C3)
HTF130SLE226AGDD2KE4C3	565	635	130	230	64	970	(22226EAKE4C3)
HTF140SLE226AGDD2KE4C3	680	765	140	250	68	890	(22228CAMKE4C3)
HTF150SLE226AGDD2KE4C3	780	895	150	270	73	820	(22230CAMKE4C3)
HTF160SLE226AGDD2KE4C3	900	1050	160	290	80	780	(22232CAMKE4C3)
HTF170SLE316AGDD2KE4C3	915	1230	170	280	88	770	(23134CAMKE4C3)
HTF180SLE316AGDD2KE4C3	1060	1400	180	300	96	720	(23136CAMKE4C3)
HTF190SLE316AGDD2KE4C3	1190	1540	190	320	104	670	(23138CAMKE4C3)
HTF200SLE316AGDD2KE4C3	1360	1790	200	340	112	630	(23140CAMKE4C3)
HTF220SLE316AGDD2KE4C3	1570	2140	220	370	120	580	(23144CAMKE4C3)
HTF240SLE316AGDD2KE4C3	1830	2470	240	400	128	540	(23148CAMKE4C3)
HTF260SLE316AGDD2KE4C3	2210	2980	260	440	144	490	(23152CAMKE4C3)
HTF280SLE316AGDD2KE4C3	2330	3300	280	460	146	460	(23156CAMKE4C3)
HTF300SLE316AGDD2KE4C3	2770	4000	300	500	160	430	(23160CAMKE4C3)
HTF320SLE316AGDD2KE4C3	3400	4850	320	540	176	400	(23164CAMKE4C3)
HTF340SLE316AGDD2KE4C3	3850	5450	340	580	190	370	(23168CAMKE4C3)
HTF360SLE316AGDD2KE4C3	3900	5600	360	600	192	360	(23172CAMKE4C3)
HTF380SLE316AGDD2KE4C3	4000	5850	380	620	194	350	(23176CAMKE4C3)
HTF400SLE316AGDD2KE4C3	4200	6300	400	650	200	330	(23180CAMKE4C3)
HTF420SLE316AGDD2KE4C3	5250	7700	420	700	224	310	(23184CAMKE4C3)
HTF440SLE316AGDD2KE4C3	5450	8200	440	720	226	300	(23188CAMKE4C3)
STF460SLE316AGDD2KE4C3	6050	9150	460	760	240	280	(23192CAMKE4C3)
STF480SLE316AGDD2KE4C3	6550	10100	480	790	248	270	(23196CAMKE4C3)

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