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■ **Maritime Rescue Operators Put Their Trust in REINTJES and FAG SmartCheck**

The rescue cruisers of the DGzRS (German Maritime Search and Rescue Service) are deployed under extreme conditions to save human lives. In situations like these, FAG SmartCheck serves to ensure that vital machinery continues to function at all times. Directly installed on the gearbox of a maritime rescue cruiser, FAG SmartCheck detects the slightest unusual vibrations at an early stage and immediately informs the crew on board of any abnormalities. In this way, the situation can be dealt with in due time.

REINTJES GmbH is a globally operating company in the field of propulsion technology, producing equipment such as gearboxes for the maritime industry with capacities ranging from 250 to 30,000 kW. FAG SmartCheck complements the after-sales product portfolio of Reintjes in this area. A twelve-month pilot project was conducted on the maritime rescue cruiser to demonstrate the effectiveness of the measurement system. In addition, the test was intended to show whether the weather conditions in different seasons affect gearbox vibrations. During the test period, all vibration data was recorded, regularly read out on FAG SmartCheck by REINTJES technicians, and sent to Schaeffler for analysis. No abnormalities were detected in the gearbox over the course of the twelve months. Early detection of abnormalities enables anticipatory and cost-saving maintenance to be carried out. Unplanned operation interruptions and downtimes due to the lack of replacement parts are able to be prevented. The reliability of the maritime rescue cruiser was of the utmost priority in this customer project, since it can mean the difference between life and death.

The solution introduced here carries over to other maritime gearboxes and assemblies, whereby multiple FAG SmartCheck systems can be employed depending on the size. The use of FAG SmartCheck to monitor vibrations rounds out the wide range of Schaeffler services for the maritime sector, such as video endoscopy and oil monitoring.

The details of this customer solution have been provided at the following link as a global technology solution:

<http://www.schaeffler.com/content.schaeffler.de/en/mediathek/library/library-detail-language.jsp?id=56959488>

You can find all our solutions right here:

<http://www.schaeffler.com/gts>

For further information, please contact your Schaeffler sales team.





■ **New BEARINX® Online Module for Designing Sheave Bearing Supports**

As of right now, every Schaeffler customer can calculate the static load safety and operating life of single and multiple sheave bearing supports using “BEARINX® Online Easy RopeSheave.” It is available online only and can be used free of charge. Initial registration takes little time, and the customer can start calculations right away.

Different bearing varieties can be gone through and compared with each other at <http://bearinx-online-easy-ropesheave.schaeffler.com> quickly and reliably. The self-explanatory menu navigation makes fast and easy data entry possible for the model setup, bearing selection, and operating data.

Data for INA and FAG brand radial rolling bearings, radial deep groove ball bearings, and radial tapered roller bearings are stored in a database and can be accessed at any time for use in the calculation procedure. Parameters typical for the application, such as sheave material considerations, the integration of a sleeve between the bearing and plastic sheave, precise inner bearing geometry data, and the system temperature as a factor influencing bearing clearance, are relevant for calculations.

It is possible to forward the saved files to Schaeffler’s engineering service for final inspection.

Easy RopeSheave || Kontakt | Impressum Contact | Legal notice ||

» Selection » System data » **Operating data** » Transaction data » Calculation

⊙ Static load case

Nr.	Designation	Rope force F_s	Wrap angle α	Diagonal pull 1 β_1	Diagonal pull 2 β_2	System temperature T
		N	°	°	°	°C
1	Loadcase 1	170000.0	180.0	3.0	4.0	20.0

⊙ Dynamic load cases

Nr.	Designation	Time portion q	Rope force F_s	Wrap angle α	Diagonal pull 1 β_1	Diagonal pull 2 β_2	Rope speed v_s	System temperature T
		%	N	°	°	°	m/sec	°C
1	Loadcase 1	0.0	0.0	0.0	0.0	0.0	0.0	20.0
2	Loadcase 2	0.0	0.0	0.0	0.0	0.0	0.0	20.0
3	Loadcase 3	0.0	0.0	0.0	0.0	0.0	0.0	20.0
4	Loadcase 4	0.0	0.0	0.0	0.0	0.0	0.0	20.0

Save Load Help Units Back Forward

v 1.0.1800

Fig. 1: BEARINX Online Easy RopeSheave

Further information on the new BEARINX® online module for designing sheave bearing supports as well as on the new brochure (PRS) is available for you to download at the following link:

http://www.schaeffler.de/content.schaeffler.de/en/products_services/inafag_products/calculating/bearinx_online_easy_ropesheave/bearinx_online_easy_ropesheave.jsp?

For further information, please contact your Schaeffler sales team.

■ **FAG SNS Split Plummer Block Housings – Unique Advantages Compared to the Competition**

The new SNS plummer block housings follow on the heels of the old SD 31 series and replace it completely.

The SNS housings have the same dimensions as the old SD 31 designs and can therefore replace them.

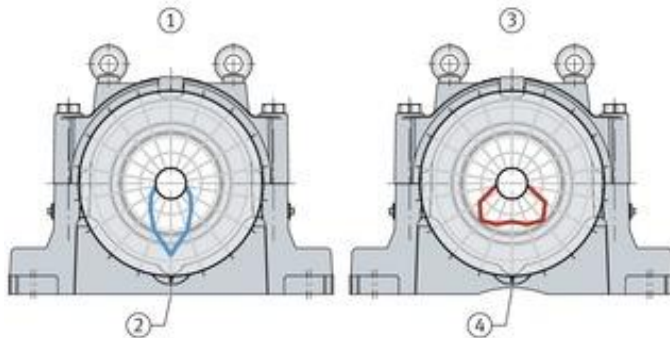
SNS housings are suitable for spherical roller bearing series 230.., 240.., 231.., 222.., 232.., and 223.., with a bore diameter of 25 mm to 750 mm, both as locating and non-locating bearings.

The introduction of the SNS series has now been completed successfully, and all intended sizes are free to be ordered at this time. The common accessories are available as well.

The Most Important Advantages of the Newly Developed SNS Plummer Block Housings at a Glance:



- 1 It has an increased service life due to an innovative housing design. Therefore, there are lower maintenance and downtime costs for the system as a whole.



Conventional Load Distribution

The brace in the middle creates an unfavorable, constricted load zone. This subjects the rolling elements in the apex to greater stress, while the adjoining rollers are unloaded. Bearing load increases also result in greater loads on the rolling elements.

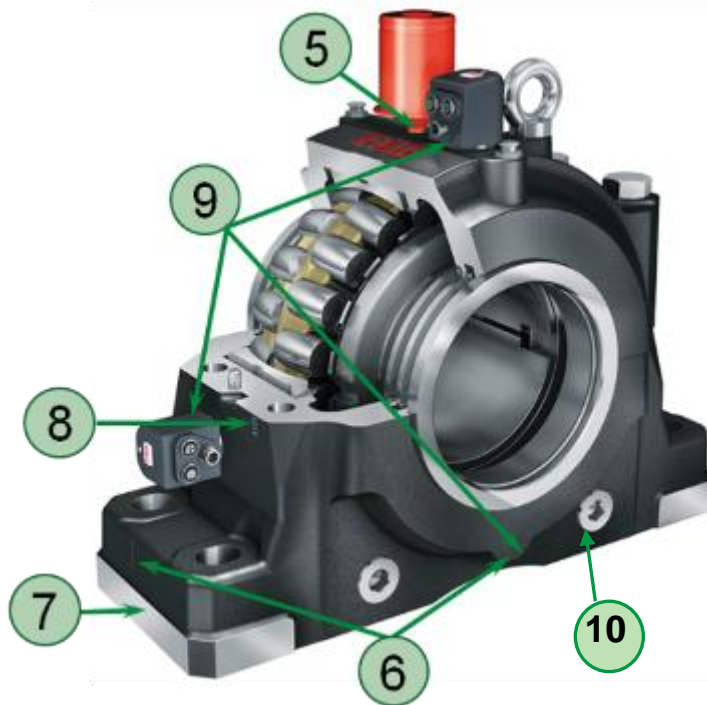
Result: The bearing fails prematurely.

Load Distribution in the SNS Housing

The material gap beneath the bearing results in a wider load zone. The bearing load is distributed more uniformly over multiple rolling elements. The maximum load is no longer on the roller at the apex, but on the adjoining rollers. The rolling elements are subjected to decreased loads in the new housing.

Result: The bearing lasts considerably longer.

- 2 It has increased break strength and jarring resistance due to the use of **spheroidal graphite cast iron** as the standard housing material. The very robust housings are ideal for rough environmental conditions such as those found in mines.
- 3 A large selection of seal options for especially dirty and dusty environments.
- 4 Corrosion-resistant design and reduced cleaning due to the slope and the overhang of the upper part of the housing.



- 5 It has an optimum lubricant supply for the bearing, independent of the bearing's position, due to the special lubricating groove inside the upper part of the housing. A compatible tapered lubricating nipple and a flat lubricating nipple are included in the delivery. Reference marks highlight other connection bores for drilling relubrication holes to add lubricant to the seals.
- 6 Special indentations allow for the housing to be aligned quickly and easily.
- 7 Mechanically reworked locating surfaces are located at the base of the housing. These projecting surfaces enable the housing to be aligned precisely.
- 8 Series numeration ensures that the two halves of the housing are arranged correctly and prevents the risk of confusion during assembly.
- 9 Prepared connection points in the housing base allow for condition monitoring to be carried out at once. SmartCheck can be connected to the housing without any preparations being necessary.
- 10 Two grease escape holes are included as standard. They allow excess grease to escape from the housing interior. Bearing overlubrication is prevented when the grease escape holes are open.

The new SNS plummer block housings combined with a normal or split spherical roller bearing, plus FAG SmartCheck, FAG GreaseCheck, and FAG



CONCEPT8, provide you with a single-source, cost-effective system solution, enabling you to effectively reduce your total cost of ownership.

You can learn more about SNS plummer block housings in our new brochure "**SNS Plummer Block Housings: 50% Longer Bearing Operating Life**" (PSG), which is available for you to download at the following link:

[http://www.schaeffler.com/remotemedien/media/ shared_media/08_media_library/01_publications/schaeffler_2/brochure/downloads_1/psg_de_en.pdf](http://www.schaeffler.com/remotemedien/media/shared_media/08_media_library/01_publications/schaeffler_2/brochure/downloads_1/psg_de_en.pdf)

For further information, or if you have any questions, please contact your Schaeffler sales team.

■ **Large Axial Spherical Roller Bearings with a Solid Brass Cage – Changeover to E1 Design and X-life Quality**

The changeover of axial spherical roller bearings with a sheet steel cage to X-life quality has been successfully completed.

Now the changeover to E1 design and X-life quality is underway in the large bearing range with a solid brass cage (suffix **-MB**). Several types have already been changed over and are available.



FAG axial spherical roller bearings in E1 design and X-life quality give you the following advantages:

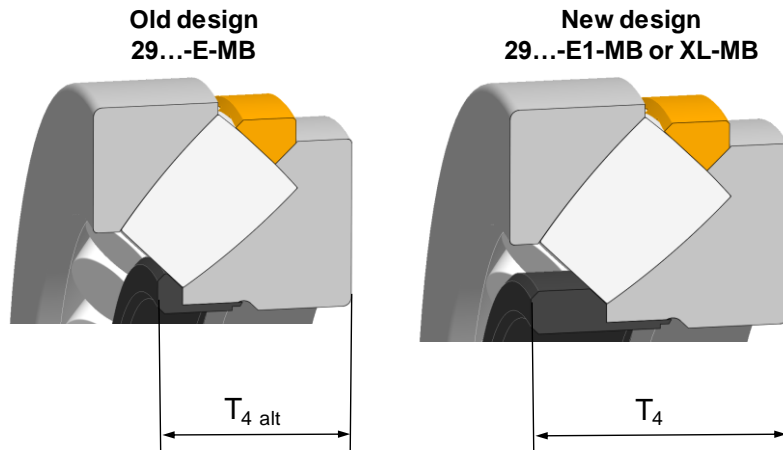
- Increased operating life
- Optimized load-carrying capacity
- Higher speeds
- Reduced wear due to the fine surface structure
- Less friction and lower bearing temperatures
- Minimal lubricant stress
- Ideal conditions for downsizing



With new FAG axial spherical roller bearings, you can increase the overall cost-effectiveness of your machines and systems even more.

Please note the following points with respect to the changeover of axial spherical roller bearings with a solid brass cage to E1 design and X-life quality:

- The main dimensions of the new FAG axial spherical roller bearings correspond to DIN 728 and ISO 104.
- This means that the new FAG axial spherical roller bearings have the same dimensions as all common bearings produced according to DIN 728 and ISO 104 and can therefore replace them.
- However, due to the new interior design and the adjustment of the secondary dimensions, particularly shaft washer height T4, the new axial spherical roller bearings are **only interchangeable with old axial spherical roller bearings in E design to a certain extent**.
- Where required, the new axial spherical roller bearings in E1 design and X-life quality are also **available with the old shaft washer height 'T4 alt' of the E version**. Please ask us specifically about this.



Further information on our new axial spherical roller bearings and their advantages are available to you on our new website.

http://www.schaeffler.de/content.schaeffler.de/en/products_services/inafag_products/rotativ_products/axial_spherical_roller_bearings/axial_spherical_roller_bearings.jsp?

For further information, please contact your Schaeffler sales team.

■ **Improved Environmental Compatibility with a Consistently High Performance Level – DEHP-free Seals for Our Products**

Schaeffler Group places great emphasis on adhering to legal regulations and manufacturing our products in an environmentally safe way.

In the scope of the REACH regulation (EC) no. 1907/2006, the use of the plasticizer diethylhexylphthalate (**DEHP**) (Bis-(2-ethylhexyl) phthalate, CAS no. 117-81-7) will be forbidden for manufacturing products as of **02/21/2015**. Due to this legally initiated substitution of DEHP, all components produced with materials affected by this have to be changed over to DOP/DEHP-free materials and their products.

In Schaeffler products, this plasticizer (DEHP) is primarily used in seals made of NBR, and occasionally HNBR. Other elastomer products, such as cables, nozzles, bellows, or trading goods (e.g. sealed bearings), may also be affected.

For this reason, Schaeffler will be successively changing over its production of affected products to DEHP-free elastomers from **01/01/2014**. By the manufacturing date of **02/21/2015** at the latest, all affected products will be produced using DEHP-free plastic seals.

Due to the extensive material validation tests performed by us, we can guarantee you that the replacement materials will boast the same performance and material properties.

What is more, our suppliers are contractually obligated to prove that the products they deliver are DEHP-free.

You can contact your Schaeffler sales team at any time for detailed information concerning your product range.

We are convinced that you will readily accept these legally stipulated and environmentally motivated product changes. They will make your final product more attractive as well!



■ **Axial Spherical Roller Bearings – New Product Brochure**

The new product brochure for axial spherical roller bearings is available as of right now. The brochure provides you with a comprehensive overview of product characteristics, advantages, and the product range of FAG axial spherical roller bearings.

Simply download the brochure “**Axial Spherical Roller Bearings. The most powerful bearings on the market**” (PAX) at the following links, or order your personal copy of the printed version from your Schaeffler sales team.

German: [LINK](#)

English: [LINK](#)

Chinese: [LINK](#)



If you would like to learn more about axial spherical roller bearings, please check out our new website at the following link:

http://www.schaeffler.de/content.schaeffler.de/en/products_services/inafag_products/rotativ_products/axial_spherical_roller_bearings/axial_spherical_roller_bearings.jsp?

For further information, please contact your Schaeffler sales team.