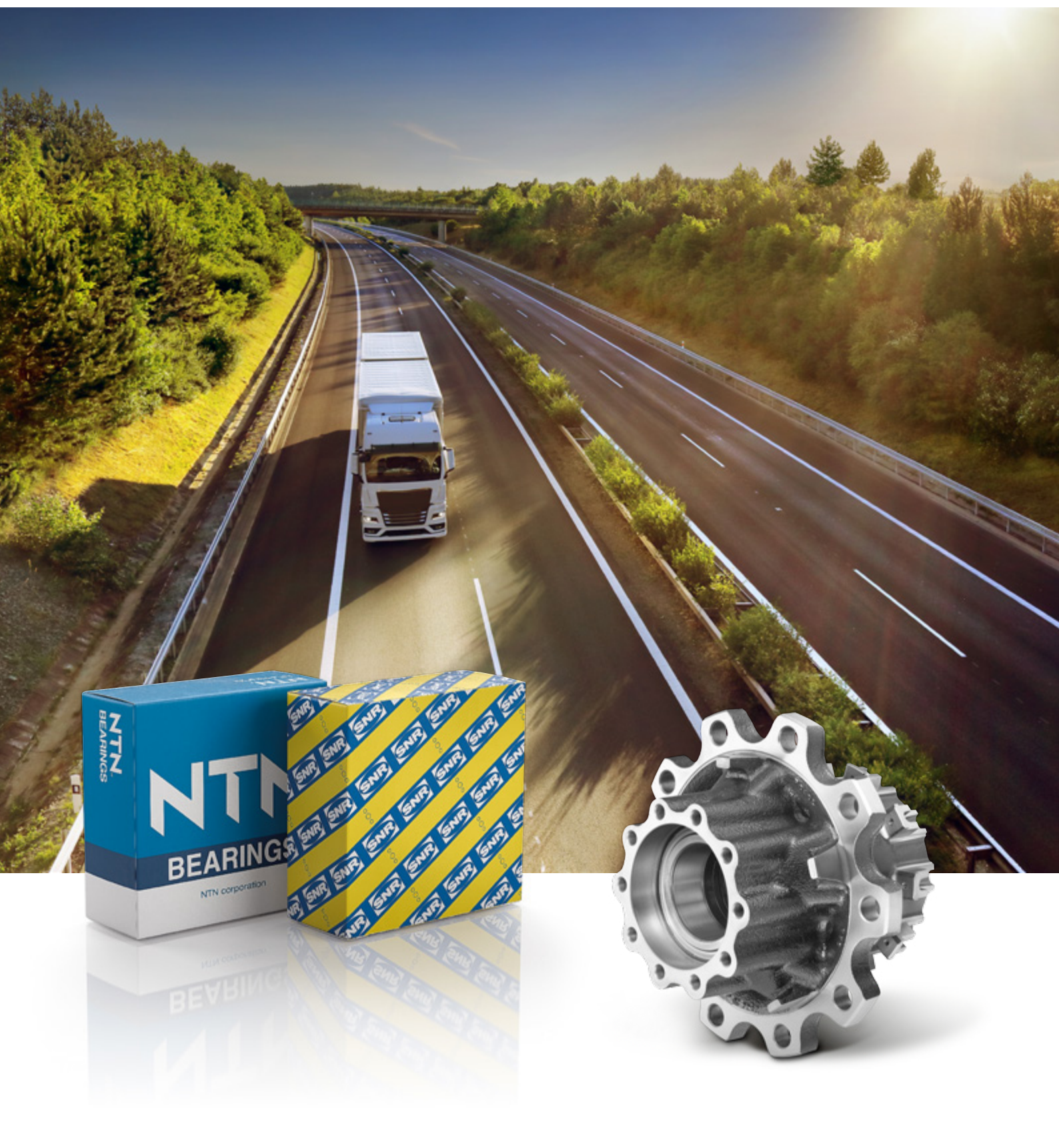




Brand of **NTN Group**

TRUCK range

Make the world a reliable
road to drive



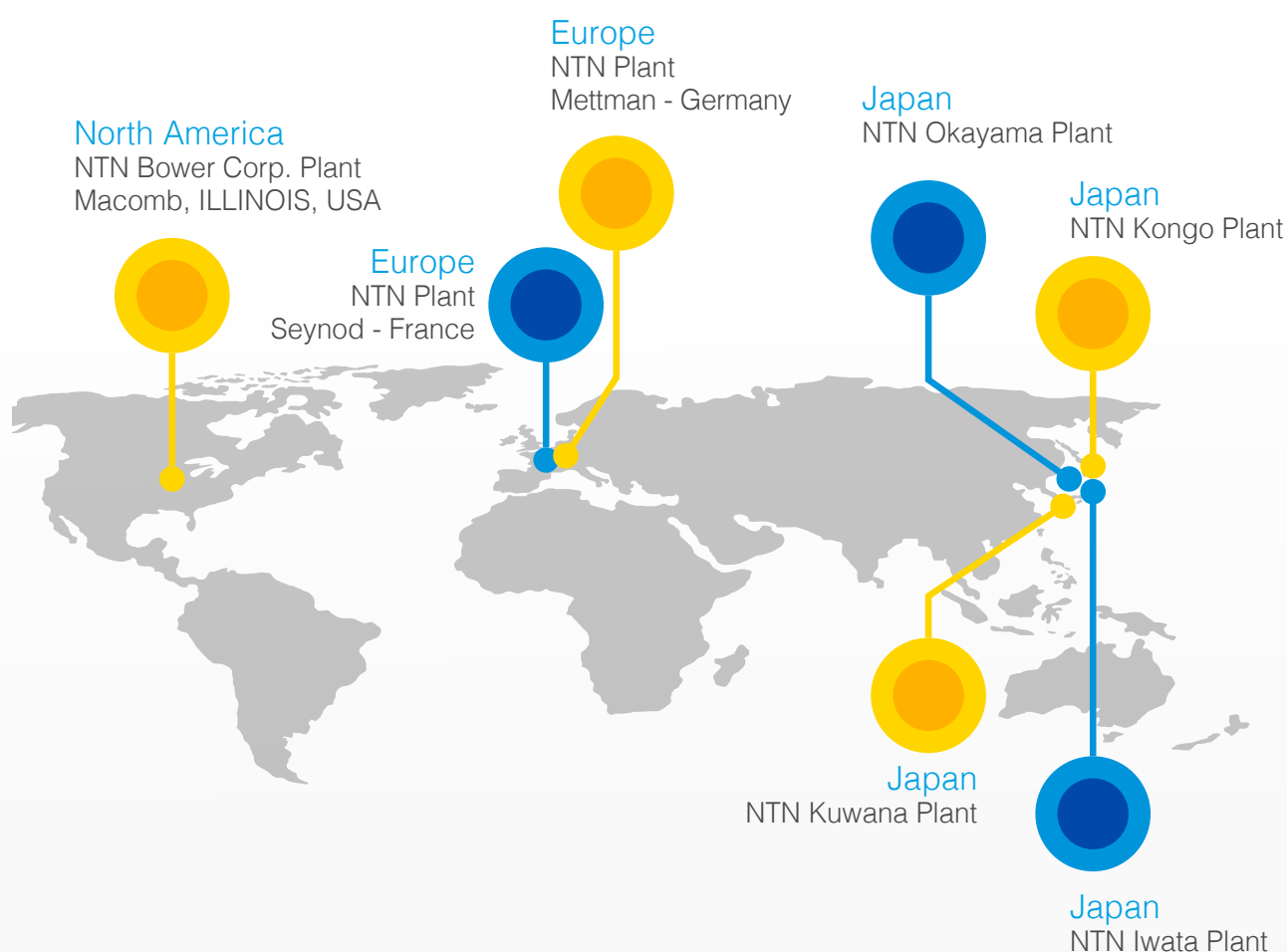
NTN Europe TRUCK RANGE

The **NTN Europe Truck Aftermarket range** offers top quality NTN and SNR branded bearings designed to meet the demands of heavy-duty vehicles worldwide.

7 of the groups 72 production sites are specialised in producing truck bearings, this guarantee's unrivalled expertise in the manufacture of bearings for truck applications.

Our range covers **European, Asian and American** vehicles, and is distributed under our three brand names: NTN, SNR and BOWER, tailored to the specific needs of each market.

Designed for wheel hubs, transmissions, differentials and engine distribution systems, our products bear witness to the trust placed in NTN by truck manufacturers all over the world.



+ More than 850
NTN and SNR bearing
references for HGV, trailer,
bus and light commercial
vehicle applications.



European applications on the European market

Europe's leading manufacturers rely on our expertise. The Truck range is designed to meet the highest standards of quality and performance.

Wheel bearings

Examples of OE applications

			
HDS001 & HDS005	HDS002	HDS003	HDS103
RENAULT TRUCKS Magnum /Midlum Premium, Kerax Séries C/D/R VOLVO FL, FLII, FE II	RENAULT TRUCKS Midlum Midliner	RENAULT TRUCKS Mascott	MERCEDES BENZ Actros MP4/MP5 Actros MP2/MP3 Atego 1&2 Antos/Arocs/Axor 1&2 Econic 1&2
Front axle Left/Right	Front axle Left/Right	Front axle Left/Right	Front axle Left/Right

			
HDS006	HDS235	HDS104 & HDS105	
Remorques MERITOR	RENAULT TRUCKS Series D IVECO Daily II, III, IV & V NISSAN NT500	MERCEDES- BENZ Sprinter II VOLKSWAGEN Crafter	
Trailer axle Left/Right	Rear axle Left/Right	Rear axle Left/Right	

Gearbox and differential bearings

Examples of OE applications

ZF

No. 1 supplier of transmission systems

+ More than 100 references dedicated to ZF gearboxes and differentials



EC0-33889 / 33822PX4

Main applications

ZF gearboxes: 16S, S5, S6, 5S, 6S, 8S, 9S, 16K, AK6, APL, GV80, GV90, Astronic, Ecolite, 3MD35, B3070

Covering DAF, Renault Trucks, Scania, Volvo, Iveco, MAN Trucks vehicles

Positions: Main shaft, primary and secondary shafts, input shaft and differential

DAIMLER

No. 2 supplier of transmission systems

+ More than 150 references dedicated to DAIMLER gearboxes and differentials



TMB309X17LL



ETA-C1R-1006PX1



ETA-C1R-1104



SKV85X93X52.8XZWS

Main applications

Heavy goods vehicles: Actros MP2/MP3, MP4/MP5/ Antos/ Arocs / Axor 1&2 / Econic / Zetros / SK / MK / NG.

Bus: O 300-/O 400-/ Series O 500, Travego, Intouro, Turismo, Setra S200, S300, S400, S500.

Positions: Main shaft, intermediate shaft, secondary shaft, primary shaft, bevel gear, differential gear.

Alternator bearings



2N2-SC03B02LLVAXCM/L696



EC1-SC0081LLH1ACMPX2/L417S

Main applications

MAN: L / G / M/ F/ E 2000, G / F 90, TGA, TGM, TGX, TGL, TGS

MERCEDEZ-BENZ: Actros MP2/ MP3, Atego 1/ 2, Axor 1/2, Econic, Zetros, NG / SK/ MK/ LP

SCANIA: Series P/G/R/T, Series C/G/L, Series 3

RENAULT TRUCKS: Premium Dxi



Asian applications on the European market

From our extensive range dedicated to Asian applications, we have selected a range specifically adapted to the needs of the European market.

Wheel bearings

Main OE applications

MITSUBISHU FUSO: Canter FE

ISUZU MOTORS: NKR,NPR, NQR, NRR, NLR, FVR, FTR, ELF, NKS, NNR, NHR, KRR, NJS

HINO MOTORS: Series 500, Ranger, Series 700

UD TRUCKS: Condor, Atlas cabstar, UZA, CW50-54, PKD, CLG, LK/LKC

Gearbox bearings

Main OE applications

MITSUBISHU FUSO: Series FK/FH/FM, LFE

ISUZU MOTORS: NKR, NPR, NQR, NRR, NLR, CVR, FVZ, GRV, FVM, FVR, FSR

HINO MOTORS: 500, Ranger

UD TRUCKS: Condor, Atlas cabstar, UZA, CW50-54, PKD, CLG, LK/LKC

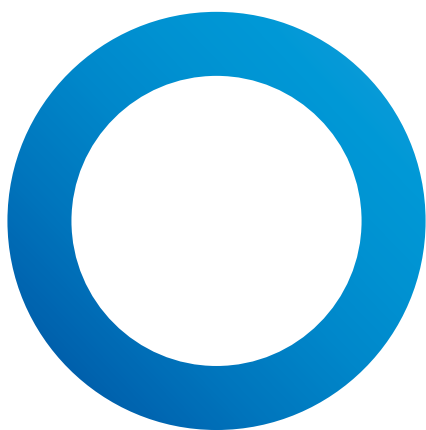
Timing belt tensioners

Main OE applications

ISUZU MOTORS: 6HL1/6HK1 motor

HINO MOTORS: Series 700, ZY 5041 (ZY1EWPD), 268 HBC (2015) - ND, NE, NJ, NV (2008-2010) Tension rollers





TRUCK RANGE

Wheel bearings - Single row of tapered rollers - HDB offer

NTN Europe offers a wide range of designs and diameters to meet specific requirements in terms of speeds, loads and temperatures, while guaranteeing low noise and vibration levels.

We offer more than 3,000 references, available in metric and inch sizes, covering the entire range. In addition, our engineers also design bespoke tapered roller bearings, adapted to the specific needs of your market, such as heavy goods vehicles, wind power, rail or agriculture.

Every year, around 100 million tapered roller bearings are produced in NTN Group factories, testifying to our industrial expertise and our ability to meet the most demanding requirements.

All NTN and SNR bearings are designed to offer maximum reliability thanks to an innovative heat treatment process. This process enriches the outer surface with carbon, reinforcing the performance of the steel and considerably increasing the durability of the bearings.

Thanks to this technology, our bearings benefit from an resistance to stress and wear, making it possible to significantly extend maintenance intervals and reduce downtime. This treatment also optimises performance in demanding conditions, guaranteeing the reliability and longevity of your equipment.

Advantages of tapered roller bearings

- **Heat treatment of the steel** ensures exceptional endurance and enhanced resistance to loads and impact resistance.
- **Precision of the bearing raceways** ensures optimum load distribution on the contact surfaces, guaranteeing low friction and reduced vibration levels.
- **Optimised roller design** reduces shoulder wear, ensures long-term control of preload and reduces noise during operation.

Did you know?

To ensure reliability and performance while reducing downtime and maintenance costs, NTN offers a range of case-hardened steel tapered roller bearings.

NTN offers one of the widest **ranges of case-hardened tapered roller bearings** on the market. These bearings are easily identified by the **4T** prefix, the symbol of Japanese manufacturing. This mark guarantees that all components, from the outer and inner rings to the rolling elements, are all made from of case-hardened steel.

This material offers remarkable advantages:

- A hardened surface layer, ensuring excellent bearing life.
- A resilient core, capable of absorbing shocks and withstanding heavy loads.

Under extreme conditions, these characteristics mean that the bearing lasts much longer than one made from not in through-hardened steel.

Wheel bearings - Double row of tapered rollers - HDS offer

The HDS range includes wheel hub units as well as kits comprising several bearings and associated consumables.

HDS are double taper roller bearings specially designed and developed for specific applications, to meet the needs of a particular make and model of manufacturer. All our HDS wheel hub units and bearings are manufactured to the highest OE quality standards. Their advanced heat treatment ensures exceptional durability and significantly extends their service life.

			
Generation 1	Generation 2	Generation 3	Kit
Wheel hub for heavy goods vehicles: • pre-adjusted • lubricated • factory sealed TOP SALES HDS002 / HUR056-9 HDS103 HDS212 HDS216	Inner and outer bearings integrated in a single-piece outer ring, pre-adjusted, greased and sealed as a single unit with an integral flange. Includes an ASB (Active Sensor Bearing) impulse ring. TOP SALES HDS001/HUR040-10 HDS006 / HUR090-2 HDS242	Hub bearing comprising of 2 rows of tapered rollers, with integral flange. Hub dedicated to the latest LVC (Low Voltage Control) technology applications. TOP SALES HDS104 / P-HUR112-2 HDS105 / P-HUR115-2	Kit comprising of two matched tapered roller bearings, held together by a sheet metal circlip, for increased rigidity. TOP SALES HDS218 HDS219 HDS220

Advantages of HDS bearings

- Optimum performance and ready-to-fit: designed for easy installation and maximum efficiency.
- Compact design: suitable for all types of industrial vehicle, offering a practical and efficient solution.
- Integrated and lubricated bearings: inner and outer bearings are assembled and pre-lubricated in a complete package, simplifying installation.
- Low friction grease and optimised preload range: reduces friction, improving overall performance.
- Anti-corrosion coating: protects against external elements and contaminants such as water.
- Optimised contact angles: provide precise preload and increased resistance to specific wheel loads.

The **HDS** range of bearings is exclusively of OE quality products, developed in accordance with the rigorous requirements of the manufacturers. This superior quality **significantly reduces annual maintenance costs** for hauliers, while limiting breakdowns and downtime for HGVs.

Did you know?

If an HGV is immobilised at the roadside, the costs can be considerable: breakdown repairs, loss of productivity, not to mention stranded goods. These costs can quickly add up to tens of thousands of euros. If you take into account all the costs associated with a lorry (purchase, maintenance, staff, repairs, etc.), the average annual operating cost of a lorry is between €100,000 and €150,000. Among these expenses, maintenance, including wheel hub maintenance, accounts for 6 to 8% of the total cost.

Wheel hubs with integrated bearing

– HDP offer

The range of heavy-duty wheel hubs with integrated bearings is the perfect solution for the heavy-duty aftermarket. The wheel bearings and hubs have been designed to simplify and speed up the disassembly and re-assembly process. All our products are tested on SNR test benches, guaranteeing their quality, safety and performance, in accordance with OE standards to offer the highest level of quality.

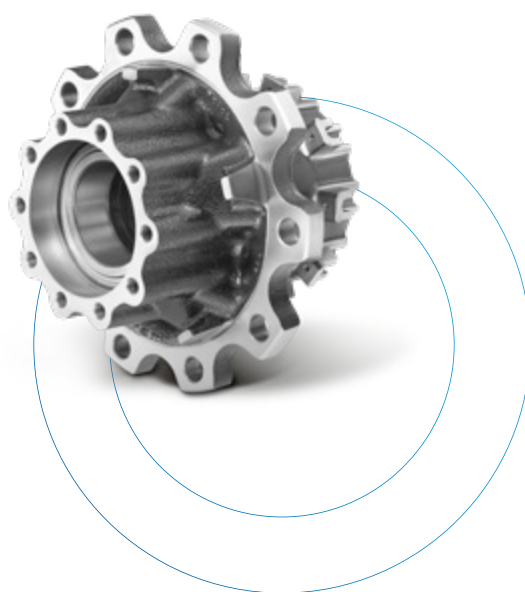
Today, NTN Europe offers a range that covers 80% of the European fleet.

Advantages of HDP bearings

- Biconical bearings pre-assembled in the hub
- Ready-to-fit hub for easy installation
- Specific design for dedicated applications
- Significant reduction in repair time for HGV maintenance professionals

Tests carried out on hubs with integrated bearings - a guarantee of safety

- **2 tests on the hubs:** rotating bending tests and bending in bends tests
- **2 tests on double taper bearings:** endurance and operating tests
- **2 tests on seals:** mud/dust and oil impermeability tests



Bearings for gearboxes and differentials



Tapered roller bearings



Cylindrical roller bearings



Needle roller bearings



Ball bearings

The number of bearings in a heavy goods vehicle gearbox varies according to the model and type of gearbox. In general, there are between **6 and 10 bearings**.

Main gearbox bearings:

1. **Input shaft bearings:** support the input shaft, which transmits the engine's power.
2. **Secondary shaft bearings:** support the secondary shaft, which distributes power to the wheels.
3. **Intermediate shaft bearings:** where an intermediate shaft is present, it is supported by one or more bearings.
4. **Differential bearings (depending on model):** for integrated transaxles, bearings also support the differential.

The bearings used are ball, needle, cylindrical or tapered roller bearings, chosen according to the forces to be absorbed and the constraints specific to each position.

Main bearings in a differential:

The differential of a heavy goods vehicle generally contains 2 to 4 bearings, depending on its design. Here is a breakdown of the bearings commonly used:

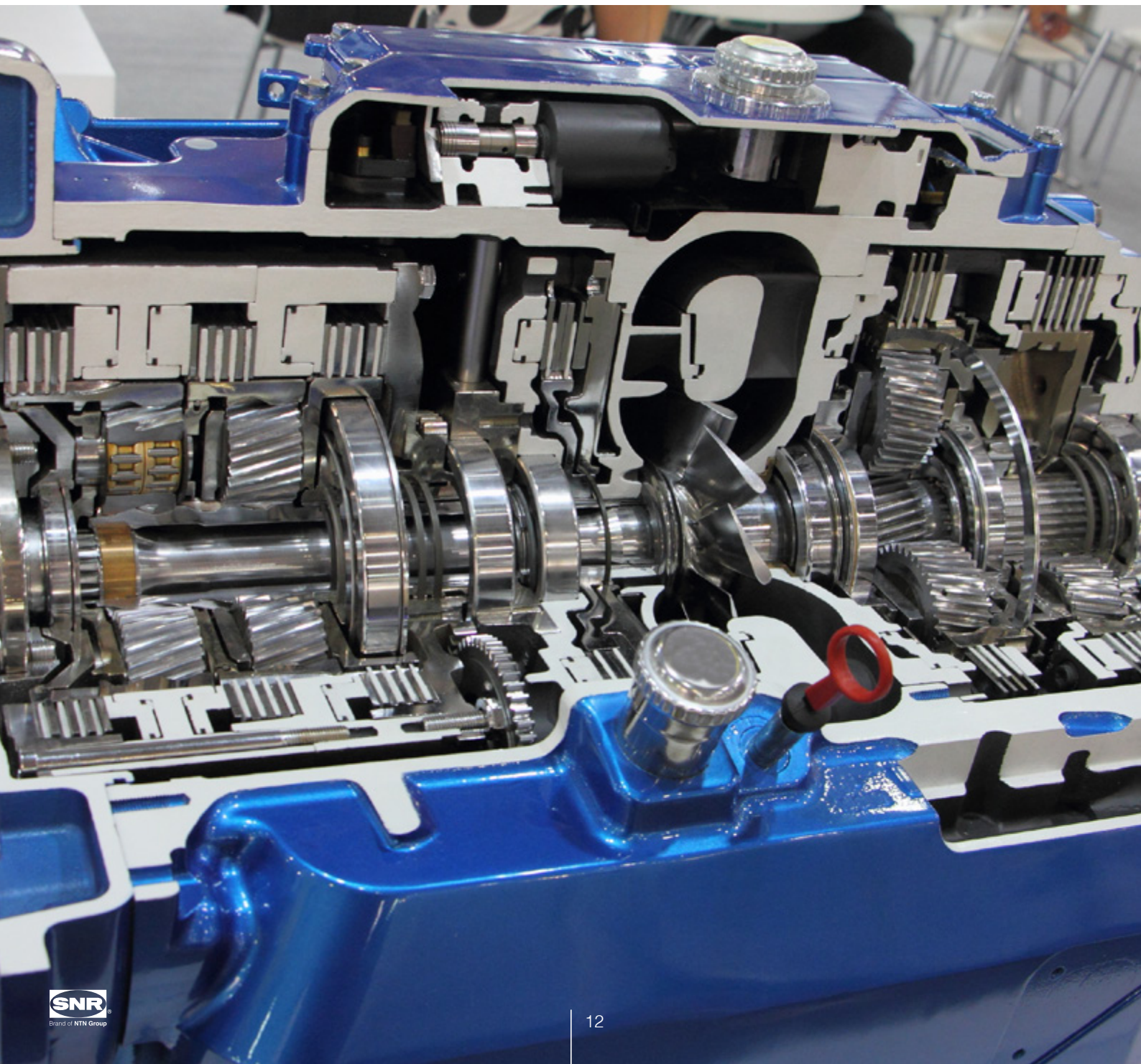
1. Drive pinion bearings:

Usually two bearings (one front and one rear) support the drive pinion shaft. These bearings, often tapered or cylindrical, are designed to absorb radial and axial loads.

2. Differential bearings:

In general, two bearings support the ring gear of the differential and its casing.

These bearings are also often tapered roller bearings, designed to support high loads. These bearings play an essential role in the optimum operation of the differential. They allow the components to **rotate smoothly**, while supporting the high loads generated by the weight of the vehicle and the forces transmitted to the wheels



Engine range

These products, are **100% OE** certified and are manufactured exclusively in NTN factories, guaranteeing optimum quality in line with manufacturers' standards.

Our **range of alternator and starter motor bearings** are used by Europe's leading alternator and starter motor manufacturers. Our range of products offers complete coverage of the main European brands (see applications below).

Thanks to its recognised expertise in **tensioner rollers**, whether mechanical or hydraulic, NTN also offers a range adapted to small Asian trucks, in particular, Hino and Isuzu vehicles, where these products are used as original equipment.

NTN has also developed a range of bearings for use in radiator fans.

Alternator bearing



MAN L / G / M / F / E 2000, G/ M/ F 90, TGA, TGL, TGM, TGX, TGL, TGS

MERCEDES-BENZ Actros MP2/ MP3, Atego 1/2, Axor 1/2, Econic, Zetros, NG/SK/MK/LP

SCANIA Series P/G/R/T, Series C/G/L, Series 3

RENAULT TRUCKS Premium Dxi

Radiator fan shaft bearing



MAN TGA/TGL/TGM/TGS/TGX D 2866, D 2876, Radiator fan shaft

MAN F/M/L 2000, F/M/G 90, F 7/8/9 D2865, D2876, E2866, Radiator fan shaft

Starter motor bearing



SCANIA Series 2-/3, motor 112, 142 113, 143

MERCEDES-BENZ

Series SK/MK/NG, Motor OM401/421/441 + A/LA, OM402/422/442 +A/LA, OM 403/423/443 +A/LA.

Timing belt tensioner



HINO 700 Series ZY 5041 (ZY1EWPD)

HINO 268 HBC(2015) - Pulley

HINO ND, NE, NJ, NV (2008-2010), Pulley

ISUZU motor 6HL1/6HK1

Light commercial vehicle range

NTN is a major supplier in the OE market for 2t and 3.5t light commercial vehicles (LCVs).

With its expertise in light and heavy vehicles, NTN naturally offers the aftermarket specific solutions for commercial vehicles. NTN addresses both the automotive aftermarket and the HGV market, offering dedicated solutions for light commercial vehicles.

A complete range with over 300 references, divided into 4 modules:

- Wheel bearings
- Engine timing
- Suspension: including thrust bearings and shock absorber kits
- Transmission: including complete driveshafts, CVJ and boot kits

The different product families cover the needs of the most popular light commercial vehicles in Europe, such as Renault Master, Citroën Jumper, Peugeot Boxer, Fiat Ducato, Mercedes Sprinter, VW Crafter, Iveco Daily, Nissan NT400 and NV400, Ford Transit and Opel Movano.





NTN, SNR and BOWER products: the ideal choice for heavy goods vehicles

A constantly expanding range

The NTN Group is committed to the ongoing development of its HGV range, the number of references has risen from 400 in 2018 to over 850 today.

Full coverage of the Wheel and Gearbox/Differential ranges

- Wheel range: extensive coverage with 85% of the fleet covered in the HDB, HDS and HDP families.
- Gearbox/Differential range: NTN Europe meets the needs of the main gearboxes thanks to its original equipment activity, in particular with ZF and Mercedes-Benz.
- A European and Asian presence thanks to the three brands NTN, SNR and BOWER.
- For Japanese brands: more than 120 NTN references cover Isuzu, Mitsubishi Fuso, UD Trucks and Hino Motors.
- For European brands: more than 700 NTN and SNR references cover the major brands: Iveco, DAF, MAN, Mercedes-Benz, Renault Trucks, Scania and Volvo.
- For American brands: a strong market presence with Ford, Mack, Meritor and Dana.
- More information is available on the Bower website.

A diversified range for all types of vehicles

NTN and SNR products equip:

- Trailers,
- Buses
- Trucks,
- Light Commercial Vehicles (LCV).

Three strong brands with a global reach

NTN, SNR and BOWER stand out in all world markets.

NTN | **SNR** | **BOWER** | Brands of
NTN Group



Recognised expertise in construction and agricultural equipment

For more than 25 years, NTN has been the original equipment supplier to the leading manufacturers of heavy goods vehicles and trailers. Its expertise also extends to public works machinery

- Caterpillar, Komatsu -, and agricultural vehicles with leading partners
- CLAAS, John Deere, New Holland, Kubota, Deutz-Fahr -.

NTN, your heavy goods vehicle partner

As a recognised HGV expert, NTN supports professionals in the sector with technical solutions and adapted complementary ranges.

Grease range

Universal

- General-purpose grease for industrial and automotive use (cars, light commercial vehicles).
- Good performance in the presence of water, excellent protection against wear and corrosion.
- Temperature range: -25 to +140°C

Advantages:

- Very good water resistance
- Excellent protection against wear and corrosion
- Good mechanical stability, even at high speeds
- Wide operating temperature range

Heavy duty Grade 2 (for Europe)

- High-performance grease enriched with extreme-pressure additives.
- Multi-purpose, it is designed for intensive applications and high loads.

Heavy duty Grade 3 (for use in the Middle East and Africa)

- Specially formulated for bearings and moving parts subject to extremely heavy loads and high temperatures.
- Will not change even in very hot conditions.

Advantages of Heavy duty greases:

- Excellent extreme pressure performance
- Very good water resistance
- Excellent protection against wear and corrosion
- Good mechanical stability
- Temperature range: -20°C to +120°C



Tools ranges

CLAS

Specialised tools for the HGV market

NTN, a recognised expert in the HGV sector, offers a range of specialised tools that meet the specific requirements of this market. Through its partnership with the French company Clas, NTN Europe provides reliable, high-performance solutions tailored to the needs of professionals, guaranteeing optimum maintenance of heavy goods vehicles.



Discover our fitting tutorial

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